

North East FinTech ECOSYSTEM REPORT 2019-2020













FINTECHNORTH

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Research area:

4

This report focuses primarily on the activity in the geographical area covered by the North East Local Enterprise Partnership and uses economic data from this region, supplemented by our own primary research.

Thank you to the organisations who have supported and co-funded this research:



NORTH EAST FINTECH ECOSYSTEM - SUMMARY

North East FinTech Ecosystem summary

North East		FinTech sect	or	FinTech startu	ps & scaleups
1,983,625	1.169m workforce	58 firms	31% established FS/ FinTech firms	17 _{firms,} employing	94% _{B2B}
53,000	3,510	40% Tech	29% startups & scaleups	417 _{people}	24% в2С
people working in FS or Tech	FS & Tech firms	78%	3,067	41yrs average age of founders	5 yrs average age of firms
85,000 students	4 . Universities	people working in established organisations	estimated FinTech related roles	88%	76%
£40.1bn GVA	3% of UK GVA	£171m GVA (estimated)	2.6% of UK FinTech GVA	have main office in North East	are startups

North East FinTech highlights

- Atom Bank, based in Durham, has raised **\$450m in funding** in three years and now employs around 375 people and is considered a future unicorn¹.
- 2. A number of the **UK's digital banks** are powered by Newcastle Strategic Solutions on an outsourced white label basis.
- 3. **Virgin Money** is establishing a new 200-person Digital Hub in 2020.
- A higher % of FinTechs in the North East are startups than in any other region we have researched².

- North East is the best represented region outside London in the Tech Nation 2019 FinTech programme, with 13% of the total cohort and a third of all regional participants (Honcho, Kani Payments, Paid).
- The North East is the only region in the north to have a **dedicated FinTech Cluster** (operated by Dynamo North East).
- 7. Key FinTech locations: Newcastle North Tyneside Durham Sunderland

Why the North East is different

- 1. **Home to Sage**, the UK's largest listed Tech company.
- 2. The new **Stellium data pipe** brings low latency and increased bandwidth advantages to North Shorers, especially trading houses.
- 3. Home to two **significant research centres** – National Innovation Centre for Data, and National Innovation Centre for Ageing.
- 4. The tech sector is the **fastest** growing outside of London³.

- Strong in-company staff retention

 North East England has the second lowest attrition rates in the UK for contact centre staff.
- 6. Strong **startup funding** capability.
- 7. **Uniquely located** within the Northern Powerhouse and with close proximity to Scotland, providing an opportunity to align closely with the Glasgow, Edinburgh, Newcastle, Durham and Yorkshire strategic agendas.

¹Datacommons(http://www.datacommons.technation.io/).²OtherWhitecapConsultingFinTechEcosystemprojectshavestudiedLeedsCityRegion, GreaterManchester, WestMidlands, Bristol.³OneRegion, OneStatement(May2019)

North East FinTech & Support Ecosystem



FOREWORDS

Whitecap Consulting



Richard Coates, Managing Director Whitecap Consulting

⁴ UK FinTech – State of the Nation 2019, Department for International Trade ⁵The State of European FinTech 2019, Finch Capital & Dealroom, October 2019 ⁶UK Tech on the Global Stage - Tech Nation Report 2019

We are pleased to publish our inaugural assessment of the North East Region FinTech Ecosystem.

The North East hosts some long established financial and public sector organisations, and it also has a higher percentage of FinTech startups within the startup and scaleup community than any other region we have researched. This suggests the FinTech sector is still in the early stages of forming, making it an exciting time for the region.

In our role as a regionally focused strategy consultancy, we are exposed to many high growth sectors across the UK and have been actively involved in FinTech since we founded the company in 2012. Since that time, we have worked with established financial services organisations, tech providers, FinTech startups and scaleups, universities, PE and Corporate Finance firms, the public sector and inward investment organisations on a range of FinTech related projects.

FinTech provides a material economic growth opportunity for the UK, the North, and for the North East. On a national level, the sector is expected to create approximately 30,000 more jobs and over 1,600 new businesses by 2030⁴.

According to Dealroom⁵, since 2013 European FinTech companies have created over 2x more value than any tech sector in Europe. Additionally, the annual report from Tech Nation⁶ in 2019 confirmed the UK remains the global leader for scaleup investment into FinTech firms, generating £4.5bn in funding between 2015 and 2018.

London is a major centre for the sector on both a national and an international basis, with an emphasis on startup and business funding. However, the dynamic is quite different in other parts of the UK, including the North East, which is home to Sage, the UK's biggest tech and respected FinTech Innovators such as Atom Bank, Newcastle Strategic Solutions and True Potential alongside an established tech sector across the public and private sector.

Our analysis across all regions, including the North East, shows that the focus tends to be less on startups - the supply side, and more focused on the demand side, driven by established financial service organisations seeking innovation and collaboration. This has been driven by increasing competition, new technology, increased customer expectations and legacy IT systems; reflecting the shift to a digital economy.

For established financial service organisations who have evolved their systems and processes over time, it is increasingly difficult to operate efficiently and effectively in a digital world. In contrast, the newer entrants have more of a flexible strategy, ideally suited to an ecosystembased approach and are well placed to exploit specific opportunities including developments such as Open Banking.

The issue of legacy technology in the financial sector is not a new one, but the major change now is a move towards openness and the adoption of different operating models with multiple supplier relationships. The challenge of adapting to this new digitally orientated operating model is something that is a common theme in our work with established organisations in the financial services and technology sectors.

FinTech has evolved from disintermediation to collaboration, and within a few years it will be the way financial services are delivered. Also, the technology and data competences that underpin FinTech are highly transferable to other industry sectors; a key factor in regional economic development.

We would like to take this opportunity to thank all stakeholders and sponsors in the North East who have helped us produce this report, which hopefully will contribute to future growth in this exciting and rapidly developing sector across the region.

Innovate Finance



Charlotte Crosswell, Chief Executive, Innovate Finance It is my pleasure to contribute to this report on the progress of FinTech in the North East. We have been keenly following the evolution of FinTech across the UK and we were delighted to be invited to speak at the FinTech North conference in Newcastle in September.

Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Our mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

The UK is the global leader in FinTech and over the past decade, the country's position as a trailblazing force in the sector has been growing from strength to strength. Building on our long-standing financial services pedigree, and injecting it with innovation and transformative technology, the results have transformed all areas of financial services.

The numbers speak for themselves. The innovation in financial services has resulted in over 100,000 new jobs across the UK, and the sector continues to attract record amounts of investment – in H1 2019 alone, our FinTech startups received \$2.9 billion in funding across a total of 123 deals and are on track to reach record levels for the whole of the year.

As a nation, we have embraced FinTech with open arms. Our progressive regulation has encouraged innovation and a large part of our success is down to just this. Innovators and entrepreneurs need a framework that allows them to thrive, so it is vital that we continue to develop and adapt regulation in ways that create the right conditions for FinTech to prosper. To date, the UK is the best place to start and scale a business – and we need to make sure that remains the same for years to come. Talent will accelerate growth across the FinTech sector, so we need to ensure we continue to blend the skills of finance, engineering and computer science that has propelled UK FinTech to the top. This is of immense importance as we enter the global race for talent and access to the brightest minds in the space.

Whilst London is acknowledged as the global epicentre in the world of FinTech, other regions of the country play an important role in building a diverse and robust national FinTech ecosystem - from Northern Ireland and Scotland, to the West and North of England. We need to ensure we shine a spotlight on these regions to showcase their success and contribution, to drive further growth and attract investment across all areas.

At Innovate Finance, we have recognised this potential and the FinTech National Network has been established with some key partners to foster collaboration between national hubs and encourage innovators up and down the country. If we can combine this network with local and central government support, as well as access to patient capital to scale companies, the future of UK FinTech will be even brighter.

By connecting FinTech hubs across the UK, different regions will be able to support each other and encourage national growth. This will form the basis to engage with international markets as a united front, ensuring our great reputation as a FinTech nation, and enabling us to continue setting the pace for the industry on an increasingly competitive international stage.

FinTech North



Chris Sier, HM Treasury FinTech Envoy, Chairman, FinTech North & Professor of Practice, Newcastle University

2019 has been an important year for FinTech North, especially in the North East. The launch event for this report in November was the 51st since FinTech North hosted its inaugural event in 2016. In 2019 we hosted 24 events across the north, including three in Newcastle.

We have been delighted to work closely with numerous key stakeholders across the North East, perhaps most notably Dynamo North East who have formed a FinTech Cluster in the region which is an initiative we've been delighted to support. There are many pockets of activity developing in the region, which is hugely positive, including the work underway at Newcastle University, an institution with which I have a personal affiliation.

FinTech North is based in Leeds, but this year we had an objective to broaden and strengthen our FinTech community across the north, and have hosted major conferences in Manchester, Leeds, Newcastle, and Liverpool. Our first Newcastle conference, hosted at Sage's head office, attracted over 300 registrations and was a resounding success.

Our conferences in 2019 attracted over 1000 delegate registrations, and we have also hosted 20 seminars and have covered topics including Open Banking, FraudTech, Mortgages, Lending, Diversity, Skills, Blockchain, and RegTech. The impact of hosting these events in building the northern FinTech community cannot be underestimated, and they are also a great source of PR profile for the regions where they are hosted.

I get immense satisfaction from seeing the different regional ecosystems around the UK coming together. A collaborative and open approach is the route to success and the national FinTech sector will be stronger. I was delighted to hear that the four major regions of Leeds, Greater Manchester, Liverpool and the North East were aiming to collaborate in the FinTech Connect conference and exhibition in London in December. The fact this was done under the FinTech North brand demonstrates that we are delivering on our promise to bring the north's FinTech community together.

On a national level, 2019 saw the creation of the FinTech National Network in April. Created by Innovate Finance, FinTech North and FinTech Scotland, it has since been expanded to include FinTech Wales, FinTech Northern Ireland and FinTech West. I fully expect more regional ecosystems to be formed and become part of this group, which is providing a vital forum to bring together the national ecosystem.

Finally, I would like to highlight that FinTech North is not a membership organisation and it receives no central funding. FinTech North functions on a combination of sponsorship and goodwill from numerous organisations across the north, supported by the hard work of the FinTech North team.

I would therefore like to take this opportunity to say thank you to everyone who has supported FinTech North to date. Without your help, we would not have been able to make the progress we have.

Sage UK



Lindsay Phillips, Executive Vice President, Product Delivery, Sage UK

Sage is delighted to be supporting this research from Whitecap Consulting, which is putting a spotlight on the region and showcasing some of the amazing work being done here.

This work ranges from established businesses like ourselves which are serving customers across the world from the North East, to the many startups and scaleups following in our footsteps with drive, raw ambition and disruptive solutions which have the potential to truly scale and drive change at an industry level.

The launch of this research coincides with Sage's latest entrant to the UK market, Sage Intacct, a best-in-class cloud financial management platform that delivers deep accounting capabilities across multiple industries designed with a single aim—to accelerate business success using smart technology to drive business insight and data driven decision making – a great resonance with the development of the FinTech sector.

The ongoing development of our academic institutions is an incredibly important factor in the growth of the sector in the North East, and the pipeline of high quality talent being retained in the region is a critical factor to drive success and enable the ongoing expansion of a wide range of tech driven businesses.

New and innovative offerings from the regions' universities and other training organisations can help increase the supply of talent, but it remains an area for excellent levels of collaboration to build the right skills in a diverse and engaging manner. Sage, having recently announced a £40m investment in our new North East facility, looks forward to hiring even more North East graduates. FinTech North is a relative newcomer to the North East and, with the active involvement of Whitecap Consulting, in working closely with the regional players, has helped to increase the visibility of the FinTech sector in the North East over the last 12 months. This resulted in an oversubscribed first annual FinTech North conference held at Sage in September 2019, with over 300 registrations demonstrating the interest and passion for FinTech in the region.

This report marks an important milestone in establishing a clear view of the scale of our FinTech Sector, the diversity of innovation that exists today and creating an insight into the growth potential that could be realised going forwards.

I look forward to seeing continued innovation and growth locally in the FinTech sector reaching well beyond its North East roots as Sage has done since it was founded here in 1981.

Newcastle Strategic Solutions



Philip Grand, Managing Director, Newcastle Strategic Solutions

Newcastle Strategic Solutions is delighted to be supporting Whitecap Consulting's research into the North East's growing FinTech ecosystem.

The North East has a proud history of innovation, from architectural and engineering achievements which changed the face of our world, through to its current reputation as one of the UK's major tech hubs. This is no accident – the region has a number of well-established strengths which make it the perfect place for innovative businesses to grow and thrive.

Fed by a stream of graduates from world-class universities, our highly skilled workforce demonstrates world-class levels of expertise in the technology, digital and professional services fields. The region also holds a well-deserved reputation as a hotbed of new ideas, home to two National Innovation Centres plus unique innovation hubs attracting creative minds from a variety of backgrounds to share ideas and fuel growth.

All this, combined with the favourable cost of doing business in the North East, not to mention its worldrenowned friendliness and hospitality, makes it no surprise that an increasing number of exciting FinTech companies are choosing to put down roots here.

As part of Newcastle Building Society, we've helped communities save for a better financial future for over 150 years. We are committed to playing our part in securing a sustainable future for North East FinTech and believe it's vital that we all continue to invest in the things that make the North East special, to ensure the sector continues to prosper. By nurturing skills development in our workforce, we can build and maintain a strong talent pool to drive ongoing growth and innovation. Newcastle Strategic Solutions has just launched its biggest ever recruitment drive, and we are committed to providing ever more opportunities for the region's tech talent to thrive.

With an ever-growing skilled workforce, we're committed to nurturing our own talent from our region via a variety of opportunities: from graduate schemes to apprenticeships. Most recently, we completed the first year of our four-year partnership with the Prince's Trust. Furthermore, this year, we welcomed a new apprentice from the Trust who joined Solutions in her dream role as Apprentice Software Developer.

With a growing community of FinTechs choosing to locate in the North East, the region's future success also depends on a sustained commitment to nurturing partnerships and collaboration. By building links between FinTech organisations both locally and further afield, we can drive the continued innovation and disruption that will be needed to fuel sustainable growth within the sector.

Finally, it's vital that we all continue to champion the North East as an ideal location for FinTech businesses to start, grow and flourish. Whitecap Consulting's research is a vital step on the way to mapping and understanding this burgeoning sector, and we're excited to play a part in this important work.

ECOSYSTEM RESEARCH 2019

North East FinTech Ecosystem Reseach 2019

Over the course of recent months, we have conducted an analysis of FinTech activity in the North East, which has included interviews, focus groups, an online survey, desk research, and insight gathered across various events, meetings and the course of our ongoing consulting engagements in FinTech across the UK.

In various guises we have engaged with over 300 individuals to ensure we are able to put forward a considered, well informed and data rich report which can serve as a building block in the evolution of the FinTech sector in the North East.

We are grateful to everyone who has contributed, and in particular to our sponsors and partners who have made this work possible when it was not centrally funded or commissioned:







Definitions and methodology

FinTech can be defined as the application of technology to improve financial products and services.

This makes it a very broad category, in which it is acknowledged to be extremely challenging to categorise companies and jobs, especially in the absence of standard measures such as SIC codes.

In this report we have differentiated between three different types of companies directly operating within the FinTech sector:

- **FinTech startups and scaleups** pure FinTech business models, often with a focus on disrupting the sectors they work in.
- Established Financial/FinTech established entities, offering financial products or services.
- Tech firms businesses operating in multiple markets (must include serving financial services or FinTech).

Categorising jobs within FinTech is also challenging, as it is not the case that everyone working in

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established financial services or tech is working in FinTech. We have conducted primary research to establish the number of jobs within FinTech startups and scaleups and have adopted a proxy methodology to estimate overall FinTech sector roles within the three categories listed above.

To calculate the FinTech workforce and GVA we have adopted the following methodology:

- Estimated FinTech workforce = 5% of combined F\$ workforce (derived from TheCityUK data) and tech workforce (derived from Tech Nation data) in the research area + all identified workers within FinTech startup & scaleup firms (Whitecap primary research).
- Estimated regional FinTech GVA = estimated FinTech workforce X GVA contribution per worker (using UK average).

In the absence of any current publicly available estimate, the 5% estimate is based on a broadening of a previous EY estimate from 2015 which suggested 5% of the FS sector is categorised as 'FinTech'.

Overview

The North East lays claim to having the fastest growing tech sector outside of London, and we have found there to be an emerging FinTech sector in the region, underpinned by major organisations such as Sage, Atom Bank, Newcastle Strategic Solutions, Tesco Bank, and Virgin Money.

In recent months, the aforementioned organisations have announced the creation of 430 new tech jobs in the North East. This is a clear indication of positive activity within the sector, which also includes some exciting early stage FinTech firms that we have identified and profiled when researching this report.

Lifestyle, the low cost of doing business, high quality higher education, and the creation of a new transatlantic internet access node all point towards a strong opportunity for the North East. The region seems to be in a great position to attract businesses and talent from the South, using the compact and collaborative North East business community to its advantage.

Many of the themes published in this report will be familiar to the North East business community. Topics such as tech talent; funding; interaction between established and early stage businesses; and communication feature strongly on the agenda to develop multiple sectors. The FinTech sector can be a beneficiary if these developments can be delivered as part of a focused and broader digital agenda.

It is important that the North East develops its FinTech proposition so this can be shared nationally and internationally, and used to help drive economic growth and prosperity from what is now the strongest sub-sector in the UK's technology industry⁷.

Current status

Overall, there is a strong financial services and tech sector with a significant number of jobs being supported and created in FinTech and broader tech. Our research has identified 58 companies operating in the financial services, related tech and FinTech sectors.

We have found 17 FinTech startups and scaleups in the region, which in the context of the size of the economy is on a par with other parts of the UK. In absolute terms this is a fairly low number and this may be explained by the relatively immature local ecosystem and lack of a supporting regional FinTech strategy. 88% of these firms have their headquarters in the North East, which shows it is possible to found and build a FinTech business in the region, but also highlights that the opportunity to be a regional subsidiary location for London and South East FinTechs to scaleup their operations in the region is not being realised yet.

Within the research area, we have estimated a combined financial services and technology workforce of 53,000. Within this, we estimate there to be 3,067 people working in FinTech roles. In London the equivalent number has been estimated at 44,000⁸, which illustrates the dominance of the nation's capital in this sector.

FinTech is often known for payments innovation, but in the North East there is a diverse range of organisations, both private and public sector. When compared to other regions we have researched, the North East has an earlier stage FinTech community, and the average age of a FinTech firm is lower than most other regions at 5 years old. Amongst the FinTech startups and scaleups the split of 75% in favour of startups is the highest we have seen.

⁷UK Tech on the Global Stage, Tech Nation Report 2019 ⁸Fintech in the UK, City of London Corporation 2018

Future potential

The strong future potential of FinTech in the region is widely accepted by the people we interviewed, and it is notable that in the 'One Region, One Sector, One Statement' (published by multiple stakeholders in the region in 2019), FinTech was the only sector highlighted as an 'emerging cluster'.

There are some great opportunities open to the North East, including, building on the strength in payments; North-Shoring and satellite offices for large FinTechs and financial services organisations; and encouragement and support for FinTech startups. Evidence of true success will be seen in an easy pathway for scaleup companies to access funding, appropriate talent and regional recognition.

The North East does not currently have a clearly defined inward investment strategy specific to FinTech. This is key to generating opportunities on a national and international level, either directly or via global location or talent outsourcing firms acting on behalf of large businesses.

Connectivity is important in FinTech, and the new Stelllium data pipe will reduce local latency and increase bandwidth which can significantly improve the ability of the region to North Shore market trading organisations and data hungry analytics businesses. In data connectivity terms, Newcastle will now be 10 milliseconds closer to New York than it is to London, which is a significant benefit to the trading community.

The true potential of the new National Innovation Centres for Data and Ageing needs to be realised and if their outputs can be proven to deliver clear value then they could be viewed as true global centres of excellence.

It is clear that strong local coordination is required to create a clear and simple message around what is available. The kind of activity to date coordinated by Dynamo North East's FinTech cluster has shown it can be an excellent vehicle for engagement once a regional strategy is in place.

Attitude towards FinTech

There is major positive sentiment towards building the ecosystem across the North East. To realise the potential economic value available, the region needs to come together, form an action plan, and leverage political support. There needs to be a strong private sector FinTech steer, possibly in the form of an action group to strategise around the benefits FinTech can offer the North East on a global level.

The significant interest in the sector is evidenced by the many organisations and individuals motivated to engage in this research and the fact over 300 people registered for the inaugural FinTech North conference at Sage in September 2019.

As is the case across the UK, there is a desire to see stronger links between established financial services organisations and early stage businesses, linking FinTechs to collaborate on projects.

There is some disappointment in the region that there have been four international FinTech missions to the Northern Powerhouse led by the Department for International Trade since 2017 but to date none has visited Newcastle or the wider North East region. This contrasts with the actions of major commercial entities, such as the strong vote of confidence in November when Virgin Money announced it is to create a range of jobs at its Gosforth base with the development of a new digital disruption hub. More than 200 people will be employed in the hub by the end of next year, with a mix of new and existing staff in the unit.

Virgin Money's Chief Executive David Duffy said:

"The North East has a vibrant tech sector and, with our ongoing commitment to the region, it is the perfect location for these new jobs, adding to our already significant presence in the area."

Stakeholder quotes - key growth opportunities

"Our vision is to present a collaborative, cohesive and ambitious North East digital economy that is leading the digitalisation of industry. We want the impact of this to improve the quality of life for the people who live, work, study and visit the North East and for the businesses who invest and trade here." "Digital for Growth – a digital strategy for the North East" – North East

Local Enterprise Partnership, October 2019

"I am delighted to see this research taking place as we have ignored the challenges in the North East for too long. The north has been deprived for many years of investment, skills and opportunity."

Kevin Telford, Advisor, ThoughtWorks

"For the North East it's about re-invention. It's not clear where the next major success story will come from? But in the North East we have thirst to innovate and our work ethic to get stuff done is strong. These are the ingredients for success."

Lindsay Phillips, Executive Vice President, Sage Product Delivery, Sage UK

"Our own research this year within the broader North East tech/digital space tells us that the region's tech sector is now worth almost £1bn and growing faster than rest of the economy, so inward investors in this space would be wise to look more closely at the area." David Steel, Joint Managing Director, Talent Insight Group "Ecosystem community engagement is part of our DNA. Our first port of call is to look within the region. We need to ask more and more, can it be done here?"

Manila McLean, Digital Director, Newcastle Strategic Solutions

"To date, very few of our global corporate clients have asked us to provide location strategy for the North East, yet one that recently did was blown away by the innovative spirit of the region, as demonstrated by the high number of digital tech startups."

Tim Gleave, Joint Managing Director, Talent Insight Group

"We need vision and help - not a build it and they will come mentality. Vision gets noticed and invested in. At Stellium we are part of a \pm 500-600mn investment. That can't be ignored. What we don't need is Newcastle to copy Shoreditch!"

John Wilson, Chief Operating Officer, Stellium Datacenters

"In terms of creating high value jobs, there's a huge opportunity for global firms to locate themselves in the North East and take advantage of the skills and work ethic here, plus the world class universities." Mike O'Brien, CEO & Co-Founder, Opencast Software "We need to highlight our core skills to attract national and international companies, rather than try to do everything."

Nicholas Flynn, Co-Founder, Nebula Labs

"We are not yet reaching the levels of noise and positive messaging around Newcastle and the wider North East's strengths in FinTech. Other cities seem to be doing this better, supported by bigger budgets and more resources. Getting this messaging right could really help us attract and retain talent, as the awareness of local career opportunities in financial services and FinTech for graduates is currently not strong enough."

Ciara Slack, Senior Investment Manager, Invest Newcastle

"Rather than Northern Powerhouse, which seems to ignore Newcastle we prefer the GENDY concept, which is similar to the Eastern seaboard of US (Glasgow, Edinburgh, Newcastle, Durham, York). This new geography has to be grown and activated, we shouldn't fight against a lack of good will from Yorkshire and the North West we should build with friendly neighbours."

John Wilson, Chief Operating Officer, Stellium Datacenters

Areas requiring the most attention over the next 2-3 years:

"There is work to be done around coaching and mentoring startups and scaleups. What could we do to support them to help them scale? We buy and integrate scale up companies so have a lot of experience."

Lindsay Phillips, Executive Vice President, Sage Product Delivery, Sage UK

"We need to nail our regional differentiation exactly like Chris Sler said at the fabulous FinTech North conference at Sage in September 2019. At Stellium we are bringing the cornerstones of our data future – improved latency and bandwidth."

John Wilson, Chief Operating Officer, Stellium Datacenters

"Strong Leadership is key to both the long term vision and shorter term strategy. We need high risk and patient capital to ensure businesses are supported through different life stages at different times. A continuum of finance."

Dawn Dunn, FinTech Cluster Manager, Dynamo North East

"We need to position Newcastle as a hip place to live, be to attract people; somewhere people want to live. Wellbeing is also more important than ever in digital and creative sectors – we have a Head of People who has a major focus on wellbeing."

Sarat Pediredla, Chief Executive Officer, hedgehoglab

"We need a well funded FinTech cluster, that links to corporates across the UK and worldwide, as well as other clusters while attracting and retaining talent to sustain and grow FinTech in the North East."

Shaun Fooy, Senior Manager, North East England, British Business Bank

Biggest obstacles to growth of FinTech in the region:

"It's hard to differentiate the North East from other cities and regions - what we need is to be able to clearly articulate the business opportunity here. In 5 years I would like inbound FinTech trade missions to ask to come to the north east, not just other regions outside of London."

Guy Currey, Director, Invest North East England

"We need to join up the cities across the north, and connect the universities and commercial enterprises across the region."

Mike O'Brien, CEO & Co-Founder, Opencast Software

"We need to be able to retain and attract the best talent in the UK, for example by working more closely with the region's universities and ensuring there are jobs here which can compete with those available in the South East. This will require significant collaboration, funding and, in the short to medium term, the ability to attract top talent from London into this region."

David Cox, Associate Director, Mincoffs Solicitors

"The issue is a national shortage of experienced developers across the digital space. In the North East, we have good availability of computer science graduates, with around 2,000 per year graduating from our fantastic universities. Speaking to a lot of London companies they experience extremely high staff attrition rates and this is why they are now looking to the regions. Retention rates are much higher in the North East, they stay for years!"

Guy Currey, Director, Invest North East England

Findings and recommendations

	Key findings	Recommendations	Key stakeholders
Talent	 Established and mature technical talent pool. Tech jobs are being created but hard to fill. Strong employee retention. Graduate retention cited as an issue. 	• Exponentially increase involvement in STEM talent initiatives such as the North East Futures UTC college and Institute of Coding, to increase the volume and gender diversity of technical coding teams alongside the 'jobs of tomorrow'.	Public sector.Major employers.Universities and colleges.
Established financial sector	 Strong and diverse financial sector across private and public sector. Core strengths in operational service centres and technology. Multiple major brands are creating tech roles in the North East. 	 Create a clear overarching regional financial sector inward investment strategy that plays to all elements of the ecosystem defined in this report. Develop a regional profile and action plan targeting global financial services for functional outsourcing and talent. 	 Regional tech bodies/clusters. Inward investment organisations.
Tech sector	 Fastest growing tech sector outside London. Home to multiple large private and public sector organisations. 	 North East needs to raise the profile of its position and capability relative to other UK city regions. Create a faster moving vision and more decisive action plan to capitalise upon regional high growth potential. Actively manage complexity using initiatives led by data analysis. 	Major tech employers.Regional tech bodies/clusters.
FinTech startups/scaleups	 FinTech community is at an early stage, with higher % of startups vs scaleups than other regions. Several North East startups have established national awareness via high profile programmes. FinTech startup community is strong in comparison with other regions. 	 Build upon the North East as a great location to start-up a FinTech with specific acceleration and mentoring programmes. Promote the claim for 'North Shoring' of UK and international FinTech startups that could potentially become the next 'Unicorns'. 	 Regional tech bodies/clusters. Operators of physical hubs/co- working spaces. Opportunity for new entrant into region to directly support FinTech development.
Relationship between Financial sector and FinTechs	 Limited examples of collaboration and engagement. Desire from all parties for more collaboration and to leverage some of the experienced business leaders in the region to help the startups. 	• The region needs to capitalise upon the good intentions of the major players by creating vehicles or initiatives for work-based interaction. Activate the ethical, community and corporate values of the major players in a two-way play.	 Major tech employers. Regional tech bodies/clusters. Tech/FinTech communities.

	Key findings	Recommendations	Key stakeholders
Funding for FinTech	 Strong supply of early stage funding compared to other regions. Limited supply of scaleup funding. Some funding is geographically restricted within the region. 	 New scaleup funding needs to be considered and linked to other initiatives such as mentoring and improved work-based revenue relationships with major regional financial services companies. 	Funding community.Public sector.
Physical spaces/hubs	 As with other regions, there is currently no dedicated FinTech space in the form of a physical hub. A limited choice of digital hubs in the region compared to other regions. There are two National Innovation Centres (Data and Ageing) in the region. 	 Increased collaborations between digital hubs and established financial services/tech/FinTech firms to capitalise on the region's resources and capability to meet its FinTech potential. 	 Universities. Major financial and tech organisations. Current & potential hub operators.
Interaction between key players	 Strong business community within the region, supported by a number of organisations. North East has the only FinTech cluster in the North of England (Dynamo North East), which is increasingly active, and FinTech North events are also taking place. 	 Create an independent private and public sector FinTech strategy and implementation group to develop a strategy that can be supported with community engagement initiatives sponsored by the Dynamo North East FinTech Cluster initiative. Continue to encourage and support communication within the FinTech community, including events activity. 	 Regional tech bodies/clusters. Tech/FinTech communities.
Role of the universities	 Opportunity for universities and regional businesses to work collaboratively on FinTech initiatives, including academic syllabi and research projects. There has been increased activity and interest in FinTech from the universities, in particular Newcastle University. The two National Innovation Centres for Ageing and Data are linked to Newcastle University, as is the Institute for Coding. 	 Create a coherent FinTech talent, graduate and research working group across the region's universities to join-the-dots between key themes such as FinTech academic qualifications, financial data, ageing population/medical data, Open Banking, ethics/trust, Al, Blockchain, CyberTech and RegTech. Ambition should be internationally significant. 	 Universities. Major tech employers. Regional tech bodies/clusters. Tech/FinTech communities.

Availability of talent

Established and mature technical talent pool

Significant number of tech jobs are being created by the financial sector

Supply of talent to fill tech vacancies is recognised as a challenge

Strong employee retention

Graduate retention cited as an issue

°Invest Newcastle https://investnewcastle.com/why-newcastle/about-our-city/ The North East has a proud region and one that people retain an association with, whether they grew up there or studied in the region. Throughout our research, we met people who have returned to the region having left to work elsewhere, often in London, with the combination of 'land, sea and city' cited as giving the region a major lifestyle advantage.

As has been widely publicised, there is a national shortage of developers and despite its tech sector strengths, the North East is no different. Sage has had to build new teams outside the region to access a wider talent pool, although they have also created many jobs here and plan to recruit more. Recently, Sage, Newcastle Strategic Solutions, Atom Bank, Virgin Money, and Tesco Bank have collectively announced the creation of 430 new tech jobs.

The financial and technology sectors have historically been major drivers behind North East talent. Major organisations such as Sage, HMRC, DWP and their external subcontractors have played important roles in driving the local digital jobs market. The region has strong expertise in coding, service development, solution architecture & programme leadership. Anecdotally there is also a shortage of good project managers, CyberTech and RegTech/compliance skills.

Today, although finding talent in tech and other key disciplines such as project management is hard, there is a sense in the North East that people stay in jobs once they have them. There are estimated to be several thousand technical job vacancies in the region at present, so the issue here appears to be more about supply of talent than talent retention.

The subject of the retention of graduates carries a different narrative, and whilst the universities do produce good technical talent there is an acknowledgement that retention within the region could be stronger. There is a sense that the region is now more attractive than ever as a place where graduates can stay and build their career which needs to be more aggressively promoted.

The North East has the highest density of STEM students in England⁹ and there are new initiatives taking place in STEM, such as UTC and Institute for Coding. Whilst these initiatives are positive ones, more will need to be done to fulfil the significant long-term demand for talent and skills in the region, skills in the region, although this is not a problem specific to FinTech.

There is acknowledgement in the region that there are uncreated 'jobs of the future' in areas such as data analytics, Blockchain, ethical use of AI, and the application of increased computing power e.g. Quantum. But it seems there is no clear line of sight as to how and where these will be created, and by who.

Diversity appears to be a challenge, with a majority male coding community and all the founders/leaders of the 17 FinTech startups and scaleups being male. Other regions we have researched have also been male dominant, but none to this extent. In the UK, gender diversity at board level has been shown to increase the enterprise value of firms.

Another interesting difference to other regions is the balance of full-time employees vs flexible workforce in the form of contractors and technical consultancies. We have not observed the same number and scale of outsourced technology consultancies in the North East as we have in other regions, and these are the firms who are creating jobs at the fastest rate in other regions.

Stakeholder quotes

"The passion of the people in the north east towards their products, their customers and their region shouts loud and clear."

Sam McIntyre, Managing Director, Europe, XE.com

"When we were talking to institutional investors the only question they had about Atom Bank being based in the north east was whether we can get the talent required here. We think we can, and to date we have done."

Mark Mullen, CEO, Atom Bank

"It's amazing the number of people we meet at organisations in the South with roots in the North East. With a concerted effort from us all, this talent need not be drained from the area in the future."

Tim Gleave, Joint Managing Director, Talent Insight Group

"We have good broad experience in coding, service development, solution architecture & programme leadership".

Richard Fahey, Head of Border Services Portfolio - HMRC CTO

"Historically it has been hard to get enough talent into the north. I've seen a shift in the last 6 months of more funding being available, which is bringing more tech skills to the north."

> Jordan Dargue, Investment Director at NorthInvest and Founder Dargue Associates

"It can be challenging to find the talent. It depends on the need for banking-domain knowledge. The talent pool is growing as a result of government investment and the falling from favour of international outsourcing."

Mike O'Brien, CEo & Co-Founder, Opencast Software

"Over the past 12-18 months I've noticed an increasing number of people returning back to the North East (what we call 'Boomerangs') or moving here for the first time after forging successful careers in London or other parts of the world. These people are usually coming here to be closer to family, to raise children, for love, or for an arguably higher quality of life yet lower cost of living & by bringing their skills, experience & network to our region are playing a very important role in the growth of the local FinTech sector."

> Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"There is a constant requirement to tackle the key skill shortage areas and this need will evolve. There needs to be continued communication and collaboration between skills providers and businesses."

> Karen McParlin, Business Engagement Manager, Business Durham

"The talent is there, we are finding people but there is not the same availability as In other regions where there is more of a contractor and interim mentality. There would be a real benefit to having more of a flex model between internal and external resourcing. A hybrid approach model raises-the-bar and creates a healthy tension in the workplace."

Manila McLean, Digital Director, Newcastle Strategic Solutions

"There are lots of brilliant people here but often they seem to feel they need to leave the region to be successful. You can be successful based in the north east, but we need to give people the confidence to believe this."

Mike O'Brien, CEo & Co-Founder, Opencast Software

"There are fantastic schools and universities but there are not enough jobs to make young people stay. We need to make sure the only option is not leaving, but also to stay and build a career in the north east." Mark Mullen, CEO, Atom Bank

Strength of the overall Financial sector

Strong and diverse financial sector across private and public sector



Core strengths in operational service centres and technology

Multiple major brands are creating tech roles in the North East The region has a wide range of companies, ranging from startups to those employing thousands of people, with core strengths seen in retail banking, call centre management, GovTech and financial middleware.

There is a growing and increasingly confident spread of technical capability within major banks and financial services organisations including Virgin Money, Atom Bank, Tesco Bank, Newcastle Strategic Solutions and BGL Group.

In the public sector, approximately 800 people in the region are estimated to be employed in financial GovTech related roles at HMRC and a similar number at DWP.

The North East has a strong representation of established financial services organisations and major FinTechs:

- Atom Bank is regarded as " a European FinTech" exemplar on a global level (McKinsey, 2018).
- **Sage**, the largest listed tech firm in the UK, manages the payroll of 8 million employees in the UK of which 1.5million get online payslips.
- **True Potential's** software is used by 20% of UK wealth managers and is valued at £2bn. It is the only UK FinTech firm to make it into the Deloitte Technology Fast 50 three years in a row.
- Newcastle Strategic Solutions manages the outsourced banking and lending functions of multiple UK digital banks including well-known brands such as Aldermore Bank.
- Virgin Money, the UK's sixth largest bank, is building a new 200-strong tech hub at its Gosforth site.

- Xe, the global FOREX organisation, has opened a satellite operation in Newcastle and plans to grow its regional presence across the north.
- **Tesco Bank** has recently created 30 new tech roles in the North East.
- **TSB, WorldPay** and **Barclaycard** all have major service centres in the North East.
- HMRC, DWP & service support companies such as Accenture, Cap Gemini & Fujitsu provide an estimated 1,500 local jobs. This tech-orientated financial sector strength does not have a high profile yet is a major general driver in the North East local digital ecosystem.

The corporate financial services community has shown confidence in the North East via its existing strong presence and through some of the recent announcements which have focused on the creation of more jobs in the tech side of the organisations.

More traditionally, the North East has been seen as a strong base for operational activities such as call centres, and this is still the case. We found mixed views on this point in our research, with some people seeing it as a strong source of jobs but others having concerns that it positioned the region as a low-cost operational hub rather than a location for accessing tech talent and experienced leaders.

Our research identified a much larger established finance sector than we initially expected, which is perhaps reflective of the relative lack of publicity attached to the presence of this sector in the region.

Stakeholder quotes



"The financial sector is stronger than you might imagine, but it is not well publicised or coordinated and needs some kind of ambassador to push its successes."

Gavin Sewell, CEO, Honcho

"There is certainly room for growth in the North East financial sector. I don't think this region is yet seen as a powerhouse for financial services despite having some key players."

> Ciara Slack, Senior Investment Manager, Invest Newcastle

"We need to better champion the world-class credentials we have in customer service, analytics, back office solutions & financial payments technologies plus the abundance of high quality students & experienced technical staff who already live here & work remotely as a genuine reason why FinTech companies should consider opening a base here in the North East."

> Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"We have a reasonably large financial sector for the size of the region, but more needs to be done to encourage collaborative working and new startups." David Cox, Associate Solicitor, Mincoffs Solicitors

"Public sector FinTech is pretty mature. We have many experienced technical staff and good outsourced support in the region."

Richard Fahey, Head of Border Services Portfolio - HMRC CTO

"There is clear opportunity to grow Financial Services and other London dominated Professional Services work by another 20,000 jobs."

Angus Kidd, Managing Director, Cord Consulting

CASE STUDY: Newcastle Strategic Solutions

Newcastle Strategic Solutions has grown alongside the North East tech industry to become one of the North East's most successful FinTech businesses and remains committed to investing in the region's tech talent.





Newcastle Strategic Solutions' roots in FinTech date back to the industry's earliest days. As part of Newcastle Building Society, the company launched its first online savings account in 2000, and quickly identified an opportunity to outsource the technology and associated operations to other financial institutions.

Taking on its first client in 2004, Newcastle Strategic Solutions went on to build a strong presence in the North East tech industry, and today employs a team of over 600 people across two offices in Newcastle and North Tyneside.

As the UK's leading savings management platform, Newcastle Strategic Solutions offers a range of technology solutions to banks and building societies which allow them to offer online savings accounts to retail customers. By removing the hurdles these companies face relating to security, infrastructure and customer service, Newcastle Strategic Solutions make it easier for other banks and building societies to offer retail savings services to their customers.

A user-friendly inbuilt online savings platform allows customers to open new savings accounts within minutes, offering innovative features like online maturities and underpinned by robust back-end systems to ensure the highest levels of security and reliability.

Newcastle Strategic Solutions also offers a range of support services, from dedicated customer service teams through to fraud and security support, providing all the resources and technology needed to enter the retail savings market. This end-to-end solution is the driving force behind some of the UK's top savings brands, powering products that regularly feature on best-buy tables and awards shortlists. In a highly competitive space defined by disruption from challenger banks, Newcastle Strategic Solutions is keenly aware of the need to keep pace with ever-evolving customer requirements. Sharing the strong customer focus of its parent company, Newcastle Building Society, end users are at the heart of ongoing development work.

The company invests heavily in the development of its technology and platforms to ensure its offering keeps pace with the rapidly developing online savings market. Recent focus areas have included app development, cloud-hosted solutions and automated testing, combined with an everpresent emphasis on cyber security.

The company is also committed to building partnerships with other FinTech organisations, to leverage new technologies as they emerge and fuel new developments in the marketplace. A recent move towards offering solutions with full API integration is set to open up new possibilities for innovation in future.

With over 150 years of history in the North East through its parent company, Newcastle Building Society, Newcastle Strategic Solutions is committed to investment in growth of the region. A number of tech roles have already been created as part of the company's biggest ever recruitment drive, a major moment in the firm's history. Additional roles are expected to become available throughout 2020 to support the development and launch of new products, services and clients.

By continuing to support the North East's fast-growing tech industry, Newcastle Strategic Solutions hopes to continue to attract and retain high quality talent, securing the region's future in FinTech and ensuring a sustainable future for this important sector.

Strength of the overall Tech sector

North East is the fastest growing tech sector outside London



Home to the largest tech company in the UK (Sage) and multiple private and public sector organisations

The North East needs to raise the profile of its position and capability vis-à-vis other UK city regions

¹⁰One Region, One Sector, One Statement (May 2019) ¹¹ Digital For Growth - North East LEP (October 2019) According to the 'One Region, One Sector, One Statement' report led by Generator, the tech sector in the North East is the fastest growing outside of London¹⁰.

It should be noted the aforementioned report covered a wider geographical scope than this FinTech ecosystem research report, but here is undoubtedly excitement and positivity in respect of the talent and capability in the region. And as highlighted earlier, there have been a significant number of tech jobs created in recent months.

With more than 29,000 IT and digital employees in the North East, in addition to 15,250 creative industries employees, the collective contribution is around £2bn to the northern economy¹¹.

The tech sector is growing faster than all of the mainstream industry groups. In relative growth terms, the digital tech sector is growing at 42% which is over 3x greater than the region's manufacturing sector which grew at 13% over the same time period. This illustrates that tech is a significant growth sector.

There are some very large organisations in both the private and public sector which appear to have influenced the strong level of maturity in the digital talent pool and have developed a robust set of regional skills. Sage, HMRC and DWP alone employ nearly 4000 people.

Regionally, Sage employs around 2000 people of which approximately 400 are involved in building products, while Newcastle Strategic Solutions has 600 staff in its technology and outsourcing business. True Potential is also an established FinTech with major regional technical capability.

There are also some prominent mid-sized tech businesses, for example JHC employs around 100 people in Newcastle to support the trading systems it provides to its financial sector clients, while Opencast Software employs 80 people and is in the process of filling an additional 40 roles created by client demand. Financial services clients account for approximately one third of Opencast's work.

There also appears to be some bandwidth to improve the quality of local IT and infrastructure support, as some companies have stated they have gone outside the region for these services.

Potential improvements are needed for infrastructure, flexible outsourcing and data connectivity; however, the situation is moving fast. The new transatlantic data pipe which connects through a North East node at Stellium Data Centres and the recent announcement that Commsworld are to fit Gigabit performance fibre optics in NE1 are all happening in real time.

Additionally, tech consulting/outsourcing companies with a Northern presence in other major cities could decide to enter the North East market. This could create more jobs and also influence the dynamics of the job market as these firms can often use contractors as part of their workforce.

While there is major positive momentum, the common view is that digital and technology businesses looking to explore locations outside of London are unlikely to short list the region as a preferred centre of operation.

Stakeholder quotes



"We have a thriving tech sector in the North East with lots of opportunity, and we are starting to gain recognition inside and outside the region with strong digital assets such as the National Innovation Centre for Data and Stellium Data Centres."

Ciara Slack, Senior Investment Manager, Invest Newcastle

"The tech sector in the North East has had its ups and downs over the past 8 years but having gone through a bit of a hype phase a few years back, I believe it's currently on the rise again & with some key ingredients now in place it just needs a bit more fuel on the fire to take things to the next level & put it on the national & international map."

> Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"I think there's a significant amount of untapped tech talent in the region."

David Cox, Associate Solicitor, Mincoffs Solicitors

"Moving forward, we need a focused and specialised tech sector in key areas such as Ageing, FinTech, and Digital Construction, to link up with the areas of focus of the LEPs."

Richard Charnley, Investment Manager, Northstar Ventures

"The North East is home to a vibrant tech & digital sector that has grown by 45% over the last 5 years, bringing in GVA of £3 Billion. This is fantastic news for the region but we still need to do more to create an ecosystem that encourages both more start-ups but crucially facilitates the ability for more of these businesses to scale and grow."

Nick Edgar, Senior Director, Virgin Money UK

"What I think people don't realise is that people like us and Scott Logic work with some of the biggest global banks in the world. It often makes no sense to people in Newcastle but those firms allow us to create great high value jobs. It's a good story that they trust the skills of people based in our region. I've been working with Investment banks since 1997 based out of Newcastle." Mike O'Brien, CEO & Co-Founder, Opencast Software

"With Sage, the North East has proven that a FinTech company founded in the region can grow from a start-up to global prominence. This demonstrates that everything is in-place for new start-up's in the region to follow a similar path."

Chris Latimer, Principal Architect, Sage

CASE STUDY: Sage - a North East tech giant embracing FinTech

Like many of the businesses they serve, Sage began as a small start-up business – founded in 1981 in a pub in Newcastle city centre by a local entrepreneur, an academic and a student from Newcastle University – with the aim to leverage new technology to democratise access to financial accounting automation. There was no recognised FinTech sector at the time, but Sage has continued to deliver innovative technology solutions to address the financial needs of business builders worldwide ever since.



From these local roots, Sage has grown to become the only technology company in the UK FTSE 100 and the largest technology company in Europe, with 13,000 colleagues serving 8m customers across 23 worldwide markets, including high-profile organisations such as the BBC, Uber, BMW, Virgin, and Etihad Airways. Importantly, in the context of this report, Sage continues to be driven from their Global HQ and spiritual home in the North East of England.

To survive in the FinTech market requires continual innovation, so this case study spotlights some recent exciting technology innovation, led from the North East, which is powering Sage's transformation into becoming a great SaaS company for its customers and colleagues alike.

Sage Business Cloud is the brand name for a product portfolio of native cloud and connected cloud propositions, covering a range of Accounting, Financial, Payroll and People products. But underneath these products sits an established set of unified global services called Sage Service Fabric, covering critical global capabilities such as Banking, Payments, Compliance and Document Exchange.

These services are built once, in a manner that is easily consumable by any Sage Business Cloud product, and are developed, deployed and iterated rapidly and independently from the products that rely upon then. They are also integrated with a broad ecosystem of best-of-breed partners who are plugged-in to provide Sage customers with best-in-class functionality, as well as global coverage and multi-segment capabilities.

The Banking Service, for example, developed entirely in the North East office, integrates directly with most leading banks from around the world, enabling more than 100,000 Sage customers to get real-time bank feeds automatically imported into their accounting software (more than 2m transactions were imported last month alone). An ML-powered rules engine applies custom and derived rules to automate in-product reconciliation, saving our customers c.3.85 years of manual effort to date.

The Payments In and Payments Out Services seamlessly bring payment processing into the Sage Business Cloud product, enabling Sage customers to make immediate or scheduled payments to their suppliers or employees, or to get paid faster by their own customers, via popular payment processors like Stripe, PayPal and GoCardless (more than £1bn value processed per year). Recently, the Sage Salary and Supplier Payments service (powered by Modulr) won 'Best Collaboration Initiative' at the Emerging Payments Awards 2019.

Additionally, the Compliance and eDocuments Services enable Sage customers to automate financial tax reporting and electronic document exchange, which keeps their businesses compliant, saves time and money, and reduces the risk of fraud.

In addition to the impressive scale highlighted by the figures above, a recent success story has been the internationalisation of Sage's newly-acquired Intacct product – previously a US-focussed native cloud accounting product. Since acquisition, Sage Intacct has been integrated with Sage Service Fabric in order to leverage localised bank feeds, payments capabilities, regulatory reporting and government submissions. By virtue of plugging into these existing localised services, Sage Intacct has been able to launch significantly ahead of schedule into both the UK and the Australian markets in the past few months.

The Sage Intacct product team estimate that leveraging Sage Service Fabric has accelerated their launch into these markets by almost two years faster than it would have taken otherwise – thereby accelerating Sage's continued evolution into a world-class SaaS company, born and raised in the North East of England.

Strength of the FinTech startup/scaleup community

FinTech is at an early stage in the ecosystem lifecycle, with a higher proportion of startups vs scaleups than other regions researched



Several North East startups have established national awareness via high profile programmes

In relative terms, the FinTech startup community is strong in comparison to other regions Whitecap has researched The North East has a good track record of developing mature and well vested organisations in this sector including Atom Bank, Newcastle Strategic Solutions, and True Potential. This research has identified 17 FinTech startups and scaleups operating in the North East and in terms of public profile, the region has some stand-out firms including Honcho, Kani Payments and Paid, which is located on Teesside but active in the North East.

We calculated that the sector could potentially sustain over 40 FinTechs, based on the size of the finance sector. Whilst this indicates the sector is undersize, the 'gap' is smaller than we have found in other regions.

Honcho, Kani Payments and Paid were all successful in winning a place on the prestigious Tech Nation FinTech Programme for 2019, ensuring that the North East was the best represented region of the UK outside of London with 13% of the cohort of 23 firms, and accounting for one in three of the non-London programme members.

Tech Nation received over 100 applications to take part, and 40% of the 23 successful firms were based outside London. Tech Nation said that the cohort shared four key challenges, which related to hiring talent, business development, raising funding, and having strong in-house tech capability but less commercial experience. This highlights some of the challenges highlighted in this report into the North East are not unique to the region.

- Paid were one of only 10 FinTech startups to win a place on the Barclays Tech Stars programme in 2019, a cohort described by Barclays as 'Ten companies redesigning the financial sector'.
- Honcho launched to market in September, and its app was built by Newcastle-based app developer Hedgehoglab, itself a North East tech success story which has scaled up rapidly over recent years working across multiple sectors.
- In October 2019, Newcastle-based tech firm Block Matrix raised a £1.6 million (\$2 million) investment for its Bottle Pay app, which allows users to send Bitcoin payments via social media. In November, Tech Nation announced Bottle Pay was one of the semi-finalists for its Rising Stars programme. Kani and Paid previously took part in this programme.
- TrackMyRisks is a London-based software company offering a governance solution in the regulated financial services sector. It has a key reseller in the North East in Guide & Protect, sister company of Talbot Jones, who have been an active participant in the FinTech North events programme.

The North East has yet to have a participant in the FCA's Sandbox and is the only region we have analysed which has not yet featured in the five cohorts to date.

Two areas that stand out requiring attention are the apparent lack of mentoring of FinTech startups by mature organisations in the sector, and also there does not appear to be a current action plan to capitalise upon a positive startup situation in the region.

Stakeholder quotes

Be part of it Jane Beadnell Photoaraph

"There are some great startups and scaleups in the North East but they aren't really a community as happens in London "

> Shaun Fooy, Senior Manager, North East England, British Business Bank

"The general tech talent in the North East is good but specialist FinTech experience is rare. Startups also find it hard to compete with blue chip salaries."

Dylan McKee, Co-Founder, Nebula Labs

"Getting funding for our business would have been much easier if we were based in the US or Shoreditch, but we like living in the North East!"

Gavin Sewell, CEO, Honcho

"There's a good range of support locally, but the FinTech businesses would be better served with more funding, which is what is needed to allow rapid development in this sector."

David Cox, Associate Solicitor, Mincoffs Solicitors

"FinTech North's Newcastle events have had high attendance and this shows a growing strength and level of interest in FinTech in the region. We need to achieve critical mass and create space for it."

> Aidan Dunphy, Director, Flektion Consultancy

"Accessing startups/scaleups support and working with different partners is likely to be part of our future. The concept of working together in a 10 minute pitch environment like I saw at the Sage FinTech North Conference is a brilliant way to get engagement."

> Manila McLean, Digital Director, Newcastle Strategic Solutions

"Things start but don't scale – we need to go outside the regional boundaries to get traction for our new businesses."

John Wilson, Chief Operating Officer, Stellium Datacenters

Relationship between startup/scaleups & established Financial Sector

Limited examples of collaboration and engagement



Desire from all parties for more collaboration and to leverage some of the experienced business leaders in the region to help the startups

There is a commonly held view amongst the people we interviewed that whilst there are several big established financial brands in the North East, there is little evidence of collaboration between them and local SMEs.

We found good evidence of a positive attitude towards engagement from the larger brands, with Sage recently taking active steps to link with local firms including hosting the FinTech North conference at the end of September. Being a relatively new company with huge ambitions, Atom Bank has had a regional engagement strategy from the start, acquiring Grasp, a regional tech company in 2016. At a initial Dynamo FinTech Cluster meeting in June 2019, at which Whitecap Consulting proposed this research, it was noted that it was the first time that the financial tech sector heavyweights, such as Atom, Sage and Newcastle Strategic Solutions had engaged together on a regional strategy discussion.

Working together, top priorities for the sector were discussed and listed as;

- 1. Access to Talent.
- 2. Leveraging resources, profile and tech needs of financial services sector.
- 3. Increase volume of early stage FinTechs.

We found there to be a desire to activate and mobilise some of the experienced business leaders in the region to help the startups. More awareness of the support available in the region can help to encourage early stage entrepreneurs and businesses.

Sage has made several strategic acquisitions as part of its growth, including Autoentry, an Irish firm that automates data entry, and Inacct, a US based management accounting insight tool. Sage's philosophy appears to revolve around coaching and developing the management teams it acquires, which it believes can lead to better integration and likelihood of acquisition success. It would like to extend this philosophy to the local FinTech community.

Although more a case study of two existing organisations, it is interesting to note that Accenture has established

a Newcastle Campus from where it services GovTech developments in the region. It has developed 100s of apprentices to fulfil its clients' needs. Like Atom Bank, the inspiration and commitment of a handful of individuals has led to these kinds of step changes.

Newcastle Building Society has partnered with PayLink, a Lincoln-based FinTech solution provider which uses Open Banking data to help customers in financial difficulty by providing a digital debt help service. Newcastle Strategic Solutions has an embedded local community ethos and wants to strongly align this with its future activities.

Good locations are also seen as a vital component of coworking and examples in the region include Barclays Tuspark Eagle Labs, Salvus House in Durham and Sunderland's Evolve business centre at Rainton Bridge. All these spaces want to create an open working mentality to foster connection and enhanced communication.

Intentions are positive, though there is no preferential corporate treatment for local startups and scaleups other than enhanced communication through initiatives such as the Dynamo Noth East FinTech cluster.

The financial sector is largely driven by corporate strategy rather than an ethical, corporate-social or regional desire for fruitful interaction. Larger business tend to view smaller businesses as outsourced development partners and less so as potential future acquisition targets. There is generally no local acquisition position advantage for a regional startup, although this could change with the deployment of an effective ecosystem strategy.

Stakeholder quotes



"There should be a FinTech sourcing check list framework open to bidders. It helps firms like hedgehoglab if similar NE businesses are doing well." Sarat Pediredla, Chief Executive Officer, hedgehoglab

"Startups without customers soon become fold-ups, so the key is to link the startups with potential customers." Jeremy Coupland, Financial Services Specialist, Northern Powerhouse, Department for International Trade

"This is an area that needs more focus, collaboration, marketing & money invested into it. I'd like to see all the larger financial & professional services pooling money & resources into a single, coordinated effort to promote the North East's FinTech credentials at a national & international level."

> Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"There is a tremendous opportunity to develop the sector by working with the companies we have up here, particularly the financial services companies. We need to get into these companies to find out their business development roadmaps so indigenous companies and new entrants or spin outs can look to work with them, providing solutions to whatever issues and opportunities are identified."

Guy Currey, Director, Invest North East England

"A critical mass of talent is crucial. I'm looking outside the business silo a lot more and we encourage everyone to do that. It would be great to use these spaces like NICD to get small sprint teams together to work on projects/problem solving."

Richard Morgan, Principal Architect, Sage

"We need major financial services/FinTechs to be front runners who take the initial risks allowing others to follow in keeping the market place competitive. It's a trust issue, someone makes a punt, others follow to innovate, grow and improve."

Karen Elliott, Associate Professor, Newcastle University

"Our strategy up to now has been predominantly to build, but as we branch into broader propositions, we will look for more opportunities to partner with others, particularly within the FinTech ecosystem. Allowing a smaller organisation to access a large customer base for testing is a good first step in collaborating and even a route to investing."

Manila McLean, Digital Director, Newcastle Strategic Solutions

Funding for FinTech

Strong supply of early stage funding compared to other regions



Some funding is geographically ringfenced within the region

Increasing experience of tech and FinTech funding deals Atom Bank has to date raised £450m via regional, national and international investors, giving the North East a fantastic FinTech funding case study that shows location does not need to be a barrier.

Within the region, the funding landscape paints a mixed picture. In contrast to what we have observed in other regions, there seems to be a good supply of early stage funding support, but not as much for scaleups.

The North East offers a variety and mix of funds and players including Maven, FW Capital, NEL, Mercia, North Invest, Northstar, and various angel investors. Growth Capital Ventures is a crowdfunding platform in the North East which led the recent crowdfunding campaign by B-North, a new challenger bank.

The profile of Venture Capital investment is now becoming more heavily biased towards digital technology business models, so local funders are becoming increasingly aware of and interested in tech businesses, including FinTech Scaleup funding is currently more challenging, with companies often mixing in-regional and out region sources. Honcho Markets, for example has used Crowdcube, alongside more traditional sources.

In June 2019, Sifted used Pitchbook data to rank non-capital cities across Europe by the number and value of angel, seed and early stage VC deals closed between 2013-18. Newcastle was ranked 15th in this list, making it the second highest ranking northern city behind Manchester. On the list, 10 of the top 20 were UK cities.

In FinTech, there are not a plethora of specific regional options and the EDRF backed funds that have been a

prominent feature in the region over recent years are not always well aligned to invest in financial services sectors.

A commonly expressed view is that more expert knowledge and 'risk capital' suitable for loss making businesses in high growth sectors like FinTech would be beneficial. This feedback is something we commonly hear in other regions of the UK, and the risk attitude of specialist investors in London and Silicon Valley is often cited as something that is missing.

North Invest told us that in 2019 they received 10 funding applications across the north from FinTech startups, increasing from 6 in total during 2018. One application originated from the North East, the same number as in 2018. All 10 FinTech funding applications received by North Invest in 2019 were from male founders.

Perhaps the bigger challenge here is how to help businesses to navigate the funding landscape and to quickly engage those investors who are most aligned to their businesses and plans for growth. As with several of the other findings in this report, this resonates with what Whitecap has seen in the other regions in which we have analysed.

There are many recent communication and training initiatives underway in the region to address this such as Finance Camp, North East Growth Hub and Newcastle Angel Hub.

Organisations such as NEL have toured the region explaining the launch of the new Jeremie funds and this has been well received. We also found the traditional investment organisations extremely easy to engage in the region and the quality of corporate finance support is also very high with numerous options available.

Stakeholder quotes



"We are too heavily reliant on public sector and EU funding. There is not enough private angel or VC investment"

> Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"With NVM, Maven, Foresight, YFM regularly in region it's the strongest it's been for scaleup funding. Startup and Seed funding is more limited, and if it was not for the Jeremie funds, little early stage funding would be available."

Aaron Lawson-Clark, Investment Associate, NVM Private Equity

"Investors buy people and plans, there's no reason why businesses based in the north east or any other region can not raise investment from London, New York or anywhere else"

Mark Mullen, CEO, Atom Bank

"We can be too hard on ourselves. We are still early in the journey of building a tech ecosystem in the north east. Over the next five years we will start to see more impact as the angel community grows from exits of successful tech entrepreneurs."

> Richard Charnley, Investment Manager, Northstar Ventures

"The key is awareness. The capital is available." Jamie Fraser, Investment Manager, Maven Capital Partners

"It would help potential investors to be consistently clear on the 2-3 key skills the region has a strong reputation for - For example: Tech, Offshore Power and Professional Services."

Angus Kidd, Managing Director, Cord Consulting

"We're seeing more and more activity in FinTech and InsurTech in the north, and I keep coming across more and more funds who are focusing outside of London, which is refreshing."

> Jeremy Coupland, Financial Services Specialist, Northern Powerhouse, Department for International Trade

"Many people seem to think raising £2-3m from Venture Capital is easy, as they see pre-revenue businesses backed at sometimes crazy levels in different countries and contexts. I think it's far better to plan and work for just what's required for the next step. We started an app business from a university grant, took on projects and built revenues from external and internal work right from year one. Other elements we bootstrapped ourselves."

Dylan McKee, Co-Founder, Nebula Labs

Physical space / hubs

As with other regions, there is currently no dedicated FinTech space

There is no FinTech specific accelerator despite a strength in sector startups

Limited choice of digital hubs compared other regions

Two National Innovation Centres (Data and Ageing) offer potential focal points for FinTech and other tech and data orientated sectors The North East is home to some high-profile hubs including the National Innovation Centre for Data (NICD) and National Centre for Ageing, but like the majority of other UK regions outside of London, it does not have any dedicated FinTech spaces at present. Indeed, 85% of the accelerators attended by FinTechs in the UK are located in the capital.

Although physical spaces and hubs are not currently as widespread in this region, this is partially offset by the fact that the large companies here want to invest in their own workspaces and a flexible 'work anywhere' staff mentality.

Most recently the North East digital sector has been served by the Ignite accelerator programme and historically there has been acceleration specific funding programmes.

In Newcastle, TUS Park/Barclays Eagle Labs is a popular and well used co-working space in the city centre which hosts a variety of events and is home to the regional offices of organisations including Plan Digital and XE.com. In July, WIRED listed it amongst The UK's Best Coworking Spaces (that aren't WeWork).

NatWest has one of its national Entrepreneur Accelerator Hubs based in Newcastle, although this is not one of its four FinTech accelerators, which are based in London, Bristol, Manchester and Edinburgh.

Beyond this, there is not a wealth of hubs for startups and scaleups and our overall observation is that the North East currently offers fewer choices of digital collaborative spaces than are available in other regions. WeWork was consistently mentioned as the kind of operator that is missing from the region.

It should be noted that although WeWork has over 60 UK buildings, more than 50 of them are in London and the only one in the north of England at present is in Manchester.

The National Innovation Centre for Data (NICD) had roots in a call from Dynamo's chair Charlie Hoult for a regional innovation hub. The link between data and FinTech is integral but it is unclear how this is actually going to be leveraged above academic type consultancy interventions.

None of these initiatives directly target the FinTech ecosystem, which contrasts some other regions such as Birmingham, which launched its first accelerator programme, named 'Velocity' in October 2019, while Bristol/ South West England has been served by the broader but FinTech savvy SetSquared partnership.

The North East has several significant business parks that are affiliated with established financial services, tech and FinTech: Cobalt and Quorum (both North of Tyne), Team Valley (Gateshead), Aykley Heads (Durham), Doxford International Business Park and Rainton Bridge (both Sunderland).

Currently though, the density of modern flexible workspaces is understated in comparison to what we have seen in other city regions, but there are some significant plans to change city centre and just-out-of-centre landscapes via major redevelopments.

The impact of incubators and accelarators

The value to startups of attending incubator and accelerator programmes is now better understood and recognised (across multiple tech sectors not just FinTech), but the challenges of operating FinTech programmes outside of London remain.

A BEIS survey of 428 startups that have participated in an incubator or accelerator found that most considered the programme to have been significant or vital to their success. The startups perceived direct funding to be the most useful support they received as part of the programme. This was followed by access to office space, lab space and technical equipment.

The report also found the launch of an accelerator is associated with a significant increase in the number and value of investments made by VCs into non-accelerated seed and high-tech companies, relative to non-accelerated seed but non-high-tech firms. More than half of UK accelerators are based in London. The scarcity of specialist FinTech incubators and accelerators outside London is more acute and 85% of the accelerators attended by UK FinTech firms are in London.

The challenges of operating a FinTech accelerator outside of London are primarily linked to the supply of relevant firms. BEIS found that the average size of an accelerator cohort was 16 businesses and the average length of a programme was just over 6 months. Incubator programmes run for longer, usually two years. Given the relatively small number of early stage FinTech companies across the regional cities, it is understandable that most of the FinTech accelerators are based in London.

Whether a 'build it and they will come' approach to creating a regional FinTech accelerator would be successful is a source of regular debate in all the cities we have researched. It will be interesting to see whether the new government takes any action in this area but providing any funding for regional accelerators that are able to support FinTech.

Stakeholder quotes:

"We can't ignore London but we have to develop the community in the north east where small and large companies and investors can meet and collaborate."

Dawn Dunn, FinTech Cluster Manager, Dynamo North East

"We could do with some WeWork style locations where like-minded similar stage businesses can congregate like they do in Shoreditch."

Gavin Sewell, CEO, Honcho

"There are some great facilities in the region but little interaction between them it seems!" Anon

"There are some great workspaces in the region, but they are still underused as not enough people fully appreciate the added value they can bring in terms of collaboration & knowledge sharing. As well as encouraging more local entrepreneurs & established businesses to start spending time in places like the TusPark Eagle Lab, Racquets Court & PROTO, we should make a concerted effort to encourage more companies based in London, Edinburgh & other FinTech capitals around the world to expand into our region by taking desks there."

Paul Lancaster, Founder & Director, Plan Digital & Newcastle Startup Week

"We need clusters to be formed and several incubators and scaleup spaces to be created."

Richard Charnley, Investment Manager, Northstar Ventures

CASE STUDY: Durham - an emerging FinTech location at Aykley Heads

Over recent years Durham has become a well-known location in FinTech nationally and internationally, thanks to being the home of Atom Bank, one of the highest profile brands in the FinTech.





Atom Bank is an app-based bank which has been judged in the top 10 FinTech global innovators for the last 4 years by FinTech Innovators (H2 Ventures and KPMG). It is an organisation with customer service is at its heart and scooped awards at the 2019 North East Contact Centre awards. In March 2019 its oldest customer turned 100.

Launched in 2014, Atom Bank is now based at Aykley Heads Business Park, a location which is in the process of being redeveloped and expanded and will house over 6,000 people. Aykley Heads sits on the edge of the city within a wooded landscape following the relocation of County Hall to the banks of the river.

Amongst the 60 organisations already located Aykley Heads are the North East Chamber of Commerce, law firm Swinburne Maddison, and Watersons, an IT company with its HQ in Durham where it accesses talent from regional universities. It also has bases in London, Glasgow, Sydney and Perth.

Aykley Heads has been well provided with broadband infrastructure in preparation for redevelopment plans and as part of the Police HQ relocation. The current fibre piping in the city has the capacity to be increased tenfold.

Investment Funding for scaleups is available locally via Finance Durham and a suite of tech sympathetic funds under NE Finance. Finance Durham was established as a £20m evergreen fund managed by Maven Capital. It was designed so as to be able to co-invest with EU backed funds from NE Finance and managed by fund managers sympathetic to tech businesses – Maven itself, Mercia and North Star. Durham City Incubator (DCI), based at Salvus House, is an accelerator programme for entrepreneurs and growing businesses in County Durham. It is aimed at local businesses that have been trading less than twelve months or looking to launch an ambitious, potential high-growth start-up, and offers a six-month fully funded accelerator programme.

DCI supports ambitious entrepreneurs in Durham with the vision to start and scale up their business. It particularly encourages student and graduate talent from Durham University and New College Durham to apply.

InsureTech startup Honcho started in a 5-person office and now has a wing of the 2nd floor of the Salvus House building at Akyley Heads, allowing it to grow as it established itself. The firm has so far benefitted from funding from Finance Durham alongside crowdfunding.

In terms of access to talent, Durham University is a top 5 UK University and top 100 in the world and is where Atom Bank recruits maths graduates for their ability to work on the complex algorithms which sit behind its technology. The university is ranked in the world top 40 for the employability of its 18,700 students.

As Mark Mullen, CEO of Atom Bank, said at the FinTech North Conference in 2019: "When Atom started out, our seed capital came from a small group of North East-based investors. Our institutional investors, all based in London, had only one question about us choosing Durham as our home: can you access the talent? The answer is yes."

Interaction and communication between key players

Strong business community within the region, supported by a number of organisations



FinTech North events have created a means via which the FinTech community can come together in the North East and across the north Dynamo North East is widely recognised and acknowledged as key player in bringing together the tech community in the North East, and the launch of its FinTech Cluster has been well received, which has included launching a networking group called FinTech Friends.

FinTech North has partnered with Dynamo on several fronts to deliver events and discussion groups, and the organisations have provided mutual promotional support to each other. Dawn Dunn, Dynamo's FinTech Cluster Manager, has become a well known face at FinTech North's events across the North of England and Scotland.

Digital Union, Entrepreneurs' Forum, Sunderland Software City, Digital Catapult and Tech Nation were all cited as good facilitators of networking opportunities in the broader business sector.

Many points of feedback were received from both private and public sector participants on the viewpoint that the regional strategic level ambition for tech and FinTech was disconnected both at an intra-regional level and externally within the Northern Powerhouse when Newcastle was not being included as a destination for visiting DIT missions. Liverpool, Manchester and Leeds have all hosted elements of previous programmes.

There was a sense that regional roll-out initiatives were generally slow, some were not truly 'bought-into' from the

start by those that instigated them and that initiatives lead to diplomacy and roll out of "buzzwords" rather than creation and implementation a visionary regional agenda.

Despite this, Inward Investment teams have been successful and very welcoming to onboard FinTechs and Financial services organisations looking to locate in the region. This is despite a specific FinTech inward investment offer.

Invest North East, Newcastle City Council, Newcastle University and Business Durham stand out as truly FinTech engaged participants both through this research exercise and in the broader ecosystem community.

An overarching concern is the North East's lack of profile on an international Inward investment or global outsourcing level. Positioning the North East in a around its major city and forming a cohesive profile could be of great benefit. A similar approach has been adopted for Liverpool City Region, Greater Manchester and Leeds City Region.

Digital and Tech businesses looking to the UK outside of London often cite M4/Reading as preferred centre of operation. Other cities e.g. Manchester are generally secondary. The North East needs to challenge this thinking about its position vis-à-vis other UK city regions.

On a more radical note, the region may needs to think about whether a Glasgow, Edinburgh, Newcastle, Durham, York Eastern seaboard mentality is a better fit than the Northern Powerhouse for its global macroeconomic profiling.

Press and media

Topics covered as a proportion of FinTech news articles in the North East 2017-2019



Topics covered as a proportion of FinTech news articles in the United Kingdom 2017-2019



Press and social media

During the course of our research we reviewed the press and social media mentions relating to FinTech in the North East. We used data from Meltwater to conduct this analysis.

Press coverage

Since 2017 there have been over 10,000 press articles mentioning FinTech in association with the North East. Overall in the UK there were over 475,000 articles, giving the North East a 2% share of voice.

The FinTech mentions in articles relating to Talent and Funding were proportionally considerably higher than the overall UK splits, and both were higher in percentage terms than any other region we have researched. This provides further evidence that the issues covered in this report relating to these two topics are known ones in the region.

Interestingly, the press articles relating to FinTech and Tech were lower in the North East than any other region we have researched, suggesting that there is an opportunity to shout louder about the vibrant tech sector in the region and how it can support the development of the FinTech ecosystem.

Social media

We found that the first time the region was associated with FinTech on social media¹² was in 2010, when there were two mentions. In 2019 this number will be around 550, which is similar figure to the West Midlands and Bristol but around half the number of mentions in Manchester and Leeds.

In other regions, we have found a direct correlation between FinTech events and social media mentions, with peaks in mentions coinciding with the dates of the events.

¹²Figures available via Meltwater include Twitter and Facebook, but not LinkedIn.

Stakeholder quotes



"Before Dynamo North East there was little going on in tech networking and little tech entrepreneur connectivity. The same now applies to FinTech." Aaron Lawson-Clark, Investment Associate, NVM Private Equity

"FinTech North has been the biggest catalyst of moving things forward and has made a huge positive contribution towards shaping the attractiveness of the north in financial services. Without FinTech North it would have been really hard to achieve this." Jeremy Coupland, Financial Services Specialist, Northern Powerhouse, Department for International Trade

"We have a lot to ask from the ecosystem. We are looking for talent in many of our Digital and Tech practises such as automated testing, digital design, infrastructure development and devops."

Manila McLean, Digital Director, Newcastle Strategic Solutions

"It's good that there are some established platforms such as Dynamo North East, and we just need to continue building on this."

David Cox, Associate Solicitor, Mincoffs Solicitors

"Cloud is a huge opportunity. We are always thinking how we can extend our products through our development ecosystem and create development partnerships via open APIs. We'd like to see regional partnerships for software development and create multiple opportunities for our partners to extend our solutions."

Lindsay Phillips, Executive Vice President, Sage Product Delivery, Sage UK

"We recently opened a regional outpost at Tuspark, central Newcastle. The amount of regional goodwill has overwhelmed me and our Bracknell based management team."

Grant Murray, Regional Manager, XE

The role of universities

Opportunity for universities and regional businesses to work collaboratively on FinTech initiatives, including academic syllabus and research projects



There has been increased activity and interest in FinTech from the universities, in particular Newcastle University

FinTech can be a challenging field for universities to engage in, as it crosses over several disciplines including business, finance, computing, and data.

The North East offers a strong source of IT graduates and with 51,000 STEM students has the highest retention rate of STEM graduates in the UK. There are several ways universities can engage with FinTech, with these revolving primarily around the academic curriculum, research, business engagement and computer science graduates. In other regions, universities offer FinTech related qualifications including Masters Degrees. The North East is developing its thinking along the same lines although there are no FinTech-specific qualifications available at present.

There is active research taking place in the region. Karen Elliott, Associate Professor at Newcastle University Business School and her colleague in Computer Science, Professor Aad Van Morsel are very visible promoters of FinTech and have secured a £1.2m research project related to FinTrust. Ethics and AI, which they will work on with Atom Bank.

In October 2019, Dr Matt Sutherland from Northumbria University Business School announced a £281,120 research project win with Sage, to form an 8-person research team around training accountants with better knowledge of digital technology that can drive SME productivity, and in turn economic growth. This is only one of six Random Control Trials to be funded through Round Two of Business Basics ran by The Dept. for Business Energy Industrial Strategy (BEIS). Northumbria also has strengths in Blockchain and banking.

Durham University Business School is particularly active in data analytics for risk pricing, as well as Blockchain. Its work spans several disciplines notably finance, maths and computer science, and includes partnerships with Dartmouth College in New Hampshire, the University of Trento and the University of Rome, Sapienza.

There is a common view amongst those we spoke to in the region, which is that collaboration with the universities is challenging. There is lots of positive talk but a requirement for more action and engagement, and to 'ioin the dots' between business, academic aualifications, innovation centres and major outside-of-region data or FinTech initiatives.

In terms of collaboration with business, the new Newcastle Innovation Centres for Ageing and Data are linked to Newcastle University, as is the Institute for Coding. At the University of Sunderland, Sage interacts heavily with the Computer Science team and have a deep interest in AI and its applications.

The universities in the region also have some highprofile alumni and this may represent an opportunity for strengthening brand association with the financial or FinTech sectors. As an example, Alison Rose, the Chief Executive of RBS, studied at Durham University.

In October 2019, Neil Hunt, a Durham University graduate who went on to become Chief Product Officer of streaming service Netflix has made a £2.7m donation for work to get more women into leadership roles in the tech sector.

The improved regional university profiling has led to Edinburgh University to start to engage in the North East through its ambitions for a new Global Open Finance Centre of Excellence (GOFCOE), spearheaded by North East native Kevin Telford who has actively been engaging with the FinTech community across the north and Scotland in recent months.

If a coherent FinTech strategy, talent and research working aroup could be established across the universities this could be a powerful initiative.

Stakeholder quotes

"We need to pitch FinTech to students in Business Schools and Computing Science, raising awareness of local career opportunities while producing 'educated and industry ready' people." Karen Elliott, Associate Professor, Newcastle University

"Great strides are being made by Newcastle, Durham and Teeside universities for startup/SME collaboration."

Nicholas Flynn, Co-Founder, Nebula Labs

"There is a willingness by the universities to engage, however the message of the value of knowledge needs to be stronger, and more flexibility to allow businesses to access the knowledge. For example, six months for a KTP project to be approved is too long." Angus Kidd, Managing Director, Cord Consulting

"I think what we're seeing now across the UK is the universities starting to build momentum and engagement with commercial opportunities and business than I've seen before. There are now more non-academic people who can talk commercial language and are easier to connect with. These are very positive steps but we are still well behind where the American universities are."

> Jeremy Coupland, Financial Services Specialist, Northern Powerhouse, Department for International Trade

"The ability to have a flow of talent coming through to businesses is critical. Young people need quality careers guidance when they are at school and to gain a clear understanding of the opportunities within this sector. Businesses and universities should continue to work closely to ensure relevance of education for businesses and help to close the skills gap" Karen McParlin, Business Engagement Manager, Business Durham

"A real need is for business and academia to work more together to break down communication barriers around research funding. It is only funding that keeps academia going."

> Sardar Jaf, Senior Lecturer, Computer Science, University of Sunderland

"Partnering with students and top talent to work collaboratively to solve problems such as new tech, theories, design-led thinking and a set of real-world problems can help to thoroughly test concepts and is a good precursor for recruitment. We have an established Apprentice program and work collaboratively with the National Innovation Centre for Data. Working closer with Academia – schools through to higher education and STEM related subjects is becoming a bigger part of our strategy." Manila McLean, Digital Director, Newcastle Strategic Solutions "I am passionate about my work as it creates a synergy between theory and practice. In conjunction with industry, it is pleasing to see how research can be garnered to yield solutions to contemporary issues to the benefit of industry and society. Specifically, opening financial technology and banking across society to remove inherent biases in data to make an impact on societal needs, desires and aspirations using co-creation of knowledge and practice as a platform to address current and future challenges in this emergent field."

Karen Elliott, Associate Professor, Newcastle University

CASE STUDY: FinTech at Newcastle University Business School

Newcastle University Business School has an active involvement in FinTech, led by Dr Karen Elliott who has been an academic at Newcastle University for 4 years, having previously been at Durham University.





As a Senior Lecturer in Enterprise and Innovation, Dr Elliott coleads the interdisciplinary EPRSC £1.2m 'FinTrust: Trust Engineering in Financial Services' project in conjunction with Professor Aad van Moorsel from Computer Science and industry partner Atom Bank. Her recent academic career focuses on the social aspects of FinTech—the ethical use of data, trust and removing bias from machine learning and thus, algorithms (Al).

Via this work the Business School has built up strong collaborations within the FinTech industry and associated academic networks including FinTech North, the FinTech National Network, Fdata, Open Banking, the NE FinTech Ecosystem, TUS Park and various other contacts across Yorkshire, the North East and Scotland.

Internationally, there has been collaboration with the Portugal FinTech House, Georgia Atlanta FinTech Academy and IBM via an IEEE working party. The current work surrounding the production of an ethical toolkit for technology-based firms has helped demonstrate the relevance of the university's garnering trust and ethical protocols across many different applications and industries together with co-created objectives. This has created considerable excitement around the research.

Two projects recently developed by Dr Elliott with pending funding from APEX (Royal Society) and The UK Aid: Impact Programme aim to explore gender diversity and creating a new industry ethical standard for machine learning and AI development.

The APEX project draws on the UK FinTech ecosystems to cocreate an industry standard and social license to operate, whilst the UK Aid project transports this work to South Africa in linking with Professors Pretorius and Brookes to address socio-economic deprivation via first, education then utilising Open Banking and FinTech applications to improve the local region, again interesting and exciting opportunities. These societal challenges bring together social and computer sciences in developing unique and viable solutions for different contexts demonstrating our capability and expertise. Partnerships are key, the benefits of industry collaborations for academic roles.

"The synergy of research to industrial problems, through funded collaboration, not only has impacts on one's career progression, but also the pleasure derived from seeing pioneering work in places such as South Africa translate into practical solutions that affect people and their lifestyle is especially rewarding.

This invaluable co-creative collaboration extends to the classroom to share with students where I have introduced 'live' case studies with Caixa Bank in Spain for students themselves to apply theory and practice while partners come into the classroom to create tangible benefits for students critical thinking skills, recent examples being Grant Murray (xe.com); Kevin Telford (ThoughtWorks), Mark Richards and Peter Kerr (Auxinoker.com) and James Thwaites (Whitecap Consulting & FinTech North). This is vital in positioning Newcastle University at the forefront of study and enriching the students' experiences from those who are active in the sector.

Our ongoing plans for industry engagement involve continuing to work closely with FinTech North in establishing and growing the NE FinTech Ecosystem while collaborating with Edinburgh University to build the Global Open Finance Centre for Excellence (GOFCOE). In addition, exchange knowledge with Georgia's FinTech Academy (US) and Portugal's FinTech House to inform the creation of an MSc in FinTech for Newcastle University, I believe this continued co-creation of knowledge will provide the same benefits and impact upon industry partners while benefiting students."

> Dr Karen Elliott, Senior Lecturer (FinTech), Newcastle University Business School

Participating organisations

Atom Bank	HMRC
Barclays	Honcho Markets Ltd
Block Matrix	Innovate Finance
Blocknorth	Invest Newcastle
Bottle Pay	Invest North East England
British Business Bank	Kani Payments
Business Durham	Lingua Communication Services Ltd.
Business Enterprise Fund	Maven Capital Partners
Campbell Reed	Mincoffs Solicitors
Caspian	Modular Law
Computershare Loan Services	National Innovation Centre for Data
Cord Consulting	Nebula Labs
DAC Beachcroft	Newcastle Building Society
Department for International Trade (DIT)	Newcastle City Council
Dynamo North East	Newcastle Strategic Solutions Ltd
Fdata	Newcastle University
Financial Conduct Authority (FCA)	North East Combined Authority
FinTech North	North East LEP
Flektion Consultancy	North Invest
Fundr.org	North Tyneside Council
Gateshead Council	Northstar Ventures
GPS	NVM Private Equity
Growth Capital Ventures	Omni Strategic
hedgehoglab	Opencast Software

Paid Plan Digital **Ryecroft Glenton** Sage UK SCL Scott Logic **SRM Solutions Stellium Data Centres Talbot Jones Talent Insight Group Tech Nation Tech North East ThoughtWorks TrackMyRisks** TSB **TUS Park** University of Durham **University of Sunderland** UNW VaultComms Virgin Money UK Waterstons Whitecap Consulting XE.com

Whitecap and FinTech North

Whitecap Consulting

Established in 2012, Whitecap Consulting is a regional strategy consultancy headquartered in Leeds, with offices in Manchester, Milton Keynes, Bristol, Newcastle and Birmingham.

Whitecap typically works with boards, executives and investors of predominantly mid-sized organisations with a turnover of $c \pm 10m \pm 300m$, helping clients analyse, develop and implement growth strategies.

The firm works with clients across a range of sectors including Financial Services, Technology, Outsourcing, Consumer and Retail, Property, Healthcare, Higher Education, Manufacturing and Professional Services, including Corporate Finance and PE.

Over recent years, Whitecap has become increasingly recognised as a specialist in the FinTech market with a range of public and private sector assignments including organising FinTech trade missions for The Department for International Trade into the Northern Powerhouse, working closely with the inward development agencies.



www.whitecapconsulting.co.uk

FinTech North

In 2016, Whitecap co-founded FinTech North as an event-based entity to help promote the growing FinTech activity across the North of England.

Today FinTech North provides a focal point for communication, engagement and collaboration between numerous regional, national and international stakeholders.

Operating on a not for profit basis, FinTech North has become firmly established, hosting regular events in multiple northern cities including Leeds, Manchester, Liverpool and Newcastle. These events attract speakers and attendees across a range of disciplines and interests including policy making, funding, innovation hubs, startups and scaleups through to corporate organisations.

In 2019, FinTech co-founded the FinTech National Network in collaboration with Innovate Finance and FinTech Scotland. The Network now also includes FinTech Wales, FinTech Northern Ireland, and FinTech West, which Whitecap also helps operate.

FINTECHNORTH

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Manchester

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Bristol

Newcastle

Birmingham

The information contained in this report is of a general nature in relation to the FinTech sector in the Leeds City Region and is not intended to address the circumstances of any particular individual or entity. Appropriate professional advice should be sought before taking action relating to the contents of the report. Whitecap Consulting has endeavoured to provide accurate and timely information but cannot guarantee the accuracy of such information at the date of publishing or in future.