THE START-UP VIEW: A YEAR IN FINTECH

How a maturing industry is moving towards collaboration to create value for customers and society

startupbootcamp FinTech

pwc

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Executive summary

The financial technology (FinTech) sector continues to evolve. After several years of excitement about the sector's potential to change the face of financial services, some of that change is starting to be realised, with leading FinTech companies commercialising their services at pace, both independently and in collaboration with incumbents.

Inevitably, early expectations have had to be shifted. Where FinTech companies were once seen as a threat to the incumbents, promising disruption in an industry suffering from a loss of customer trust, the emphasis has shifted to collaboration. FinTech now also has a lens on technologies that address operational challenges as well as customer expectations.

Advances in areas such as artificial intelligence, big data and blockchain offer huge opportunities in this context. These areas are opening up new avenues of growth and delivering greater operational efficiency and productivity, while all the time focusing on specific customer pain points.

"We think that the ongoing trend of a maturing FinTech space will stay the most exciting one" says Elias Reitter, Group CSO of Arvato-Bertelsmann. "This does not only focus on Blockchain and artificial intelligence but the real integration and new use cases that come along with that".

From our position at the heart of the FinTech ecosystem, Startupbootcamp and PwC enjoy a unique view of emerging trends in this sector. Based on the qualitative intelligence and experience gleaned from this work over the past 12 months, as well as quantitative insight from the programme's application data and UK funding data, this paper provides key insights into the evolution of the FinTech sector.

Our key findings are:

Despite Brexit, the UK should remain a global FinTech leader. Economic and political uncertainty poses a threat, but the European FinTech sector is in a healthy position, led by the UK. Regulators across Europe are following the UK's example as they seek to foster an agile environment conducive to innovation; the UK, meanwhile, has built FinTech bridges with a

growing number of international markets and continues to attract investors from territories such as Canada and Japan.

More start-ups want to work with existing financial services businesses. Growing understanding of each other's cultures and working practices has seen FinTech companies and incumbents work together much more frequently. Start-ups offering a business-to-business proposition accounted for 56% of applications to Startupbootcamp last year and for 71% of UK funding; their focus is very often on improving incumbents' internal operating processes.

The most successful artificial intelligence and machine learning advances put the customer at the centre. FinTech companies pioneering these technologies have moved towards a design-led approach. The increasing volume of open source material available to start-ups has enabled them to focus on technological advances from the perspective of specific customer problems.

Serving the un(der)served has become a key priority for start-ups globally. FinTech companies are aware and concerned about the unfairness and opportunities that arise from a huge number of people that are not served by the financial services sector. More than one in 10 applications to Startupbootcamp FinTech 2016 (12%) came from start-ups aiming to tackle issues of financial inclusion and wellbeing. Traditionally a focus in developing countries, UK and European FinTech companies are increasingly engaged with these issues too.

Great change has taken place in the collaboration between start-ups and incumbents, but these are only the first steps as there is more work to be done. Much progress has been made as FinTech companies and incumbents have got to know each other better, but the search for the perfect collaboration model continues. Until now most projects end on proof-of-concept or pilot studies. The next phase of growth is to turn more of these into real business. Too many corporates are struggling to measure success in FinTech.

“We think that the ongoing trend of a maturing FinTech space will stay the most exciting one. This does not only focus on Blockchain and AI but the real integration and new use cases that come along with that.”

Elias Reitter,
Arvato-Bertelsmann

The FinTech landscape (UK)

Key takeaways from this chapter:

Last year in the UK, the value of venture capitalist (VC) driven investment in FinTech fell by 33.7%. In the context of the positive 10.9% increase in VC driven investment globally this looked worse.

Brexit has created uncertainties for the FinTech industry. Will the UK remain an attractive place for entrepreneurs, whether start-ups will have access to capital and whether regulatory passporting rights will be taken away?

There are still many positives to draw from including increasing innovation around Europe, growing interest in the UK market from international investment funds and continued collaboration with the UK regulator.

The FinTech sector is not immune to changes in broader market sentiment or geo-politics - and 2016 was a year of unusual volatility. Eurozone anxiety is set to continue with elections in many countries looming large in 2017.

Against this backdrop, there are inevitably questions for the FinTech sector to ponder. Will investors be less prepared to commit their capital given the cloudy outlook? Are prospective entrepreneurs going to be more cautious? Might the centre of power for Europe's FinTech sector shift away from London given the Brexit vote? While these remain unknowns, in the short term there are positive signals that we can draw from.

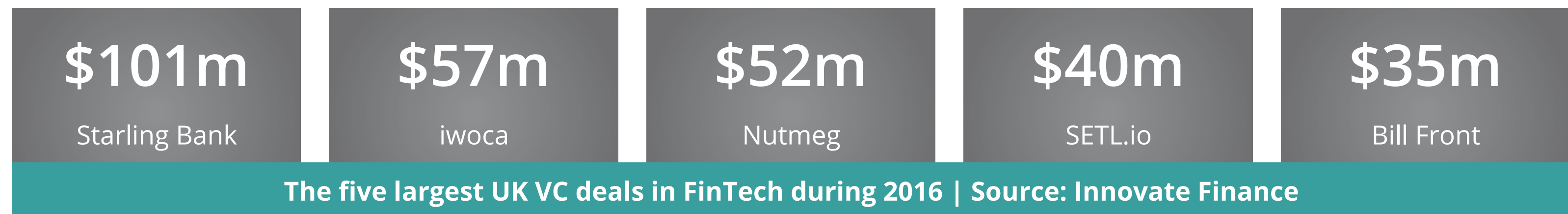
In fact, investment in FinTech globally held up remarkably well during 2016. Innovate Finance data suggests there was $17.4bn worth of VC investment worldwide over the course of the year, a 10.9% increase compared to 2015. However, in the UK there was a different story to tell, as deal value drastically decreased by 33.7% to a total of $783m.

Despite this large drop there are positives we can take away from the UK's investment figures. There was a 5.5% increase in the number of VC deals completed, showing that there is still interest in the innovation occurring in the UK. Also despite many blaming the large drop in investment on the Brexit referendum, nine of the top 20 UK FinTech deals closed post Brexit, with the total investment for this period tallying $368m. All in all, despite a difficult economic year we can be positive about the outlook for FinTech investment.

FinTech businesses face a number of other headwinds as they seek growth, investment and customers. One issue is the tough climate for incumbent financial services businesses, an obvious source of investment and collaboration in the FinTech sector. As these firms face economic, regulatory and market challenges of their own, they are under mounting pressure to show attractive returns on investment in innovation. There is a view that FinTech is the Financial Services industry outsourcing its own research & development (R&D). If this is true then return on investment (ROI) models are likely to be inappropriate and we will see corporates frustrated with the scalability of what emerges from such programmes.

The reality for many financial services businesses is that investment into the FinTech sector is necessary to keep pace with their peer group, but also to explore and discover new business models that will help them to compete with up and coming tech companies. However, the as-yet unproven revenues of potential investee companies together with an ROI expectation more suited to corporate change programmes, make this a tough case to argue with the C-suite.

With all this considered, the biggest talking point of the second half of the year has been the impact of Brexit on FinTech and the uncertainties that lie ahead.



The five largest UK VC deals in FinTech during 2016 | Source: Innovate Finance

The Brexit effect

The shockwaves caused by the UK's decision to vote for Brexit in last June's referendum have certainly reached the FinTech sector, with three questions in particular now troubling many:

Will the UK now become less attractive as a talent pool for young entrepreneurs? While the UK is currently home to a third of all technology start-up employees in Europe, tougher immigration rules and a supposedly less attractive environment could jeopardise that. At the Startupbootcamp FinTech Selection Days (a three-day event where we invite up to 20 of the top start-ups that applied to the programme), 16 out of 19 companies had non-UK CEOs, showing the importance of international talent in the UK.

Will start-ups' access to capital be jeopardised? The sharp fall-off in VC led investment in FinTech companies during the second half of last year suggests Brexit weighed heavily on investors' minds - we do not yet know whether this will continue.

What access will UK FinTech companies have to the EU once Brexit is completed? Were the UK financial services industry to lose its passporting rights, FinTech companies might struggle to do business in Europe. However, we find that most early stage FinTech companies have a domestic focus so this should not be an issue.

It is important to stress that such concerns remain purely hypothetical given that negotiations over the terms of Brexit have not yet begun and are unclear. However, despite this uncertainty we have found the impact Brexit has had on early stage start-ups to be minimal so far. Jan-Michael Gorecki, CEO of KyoLab (a participant in the Startupbootcamp FinTech programme) said "Brexit has been more about speculation than actual impact for us".

One of the key areas of speculation is whether London will remain the "FinTech capital of Europe" or be surpassed by cities such as Paris or Berlin. However, rather than seeing these

cities as competition, there is a positive story to be told around increasing innovation across Europe.

Indeed, there are several countries now following the UK's lead to reduce regulatory restraints and increase innovation. This is particularly coming from countries we wouldn't necessarily immediately associate with FinTech. Lithuania, for example, is set to establish a new regulatory regime to ease the way for FinTech start-ups and is working with the FCA to ensure businesses that the UK regulator has approved get fast-track approval from the Lithuanian authorities. London-run Revolut and Contis have already secured passporting rights.

It's also important to stress that London's pre-eminence in the FinTech space is the result of disparate factors, many of which are unaffected by Brexit. The UK has always encouraged innovation and Innovate Finance believes that "critical to this has been a forward thinking, open and collaborative regulatory regime driven by the FCA". The fact that London is home to such a large concentration of financial services businesses and technology companies, in close proximity to one another, is also a natural advantage.

In fact, the UK's FinTech sector has continued to progress since the Brexit vote. Some examples include the London FinTech "bridges" forged with China, South Korea, Singapore, India and Australia. Japanese firm Softbank, meanwhile, has said the headquarters for its £80bn technology investment fund will be located in London, which is an encouraging sign for investment.

In short, while Brexit has given FinTech companies and the broader investment community pause for thought, progress has continued since the referendum. There will be uncertainty in Europe whilst negotiations develop in the years to come, but we will see continued support from the regulator to encourage innovation and even if we see loss of investment and talent from the European region, this can be compensated by other territories, such as Asia, coming to the UK. London will still remain a global capital of FinTech, but we might see its growth slow down compared to other regions.

Top trends in FinTech - 2016

Key takeaways from this chapter:

There has been a rise in B2B businesses from both enabling start-ups, looking to work with incumbent firms and disrupting start-ups, targeting the SME space.

In AI and machine learning more emphasis is being put on customer problems now that more open source material is available on the technology.

FinTech companies can help the financial services industry reach out to un(der)served customers.

Despite the uncertainty in the FinTech landscape, the sector continues to develop and evolve. Our analysis of the leading trends in FinTech during 2016 have been underpinned by two distinct sets of data, as we have sought to understand the views of both start-up businesses and investors:

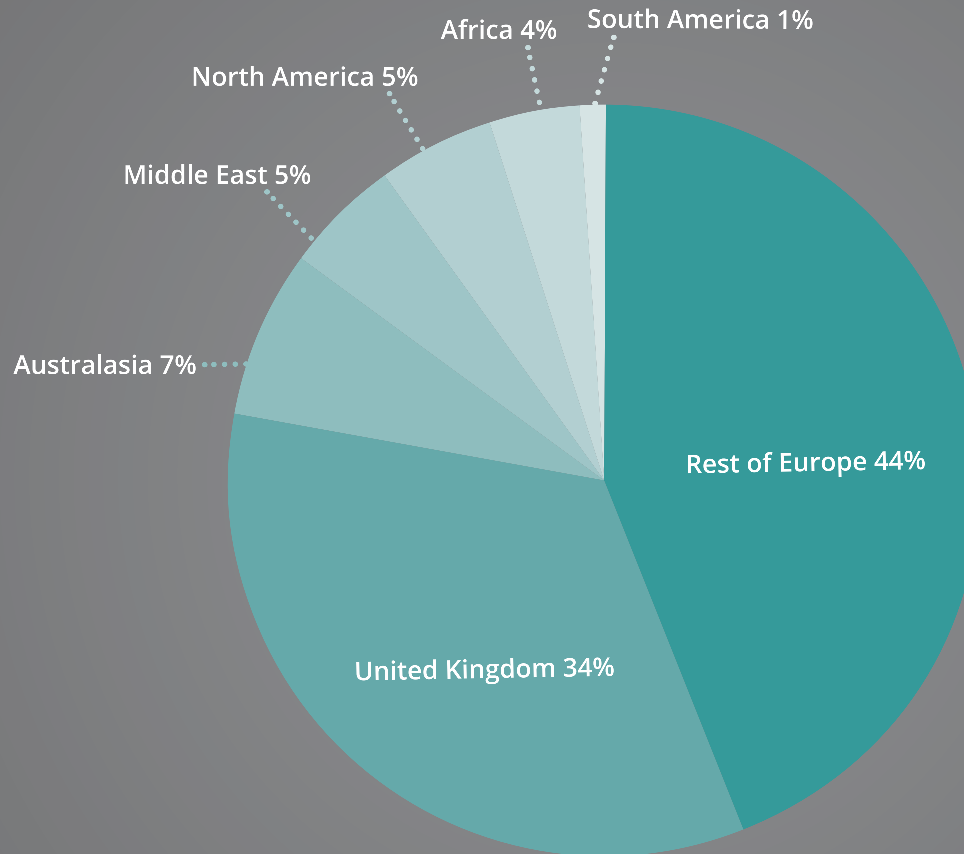
The demography and business sectors of the 400+ companies that applied to Startupbootcamp FinTech London 2016 (and the 1,000+ companies the accelerator looked at);

Total funding rounds for UK FinTech companies during 2016 (measured by volume of deals rather than value, which is skewed by large deals).

The Startupbootcamp data is unique as it gives us a focused view on pre-seed stage companies, recently created, showcasing where entrepreneurs see opportunities in FinTech.

The data covers applications from 51 different countries, underlining the extent to which London remains a hub for global FinTech companies. The UK itself was the single biggest contributor of applicants. That is not surprising, but relative to other countries, its share of applicants rose significantly last year, from 22% in 2015 to 34%, showing the constant growth of innovation within the UK.

Where the Startupbootcamp applications came from



As for the types of businesses, the FinTech sector spans an increasingly broad range, with sub-sector demarcations blurred by increasing crossover, particularly as businesses embrace more ambitious targets. However, to facilitate comparisons, we categorised applicants to the Startupbootcamp programme using the same categories as in our 2015 report that were originally set by the World Economic Forum.

Categories set by the World Economic Forum

Cloud solutions and improved processes - new technologies are helping financial services companies to improve processes and make efficiencies by outsourcing them to FinTech providers, often using the cloud

Cashless world - existing payment systems are being adapted to enable new payment methods and customer behaviours

Smarter, faster machines - blockchain, machine learning and artificial intelligence have been enabled by the increasing power and decreasing cost of computing

Shifting customer preferences - upcoming companies are creating new ways for customers to interact with financial services, driving change throughout the industry

Empowered investors - new technologies are transforming the way institutional and retail investors make investments

Crowdfunding - new ways of raising and investing capital are changing the landscape of capital markets

Alternative lending - new ways of assessing creditworthiness and issuing credit are transforming lending markets

New market platforms - regulation and technological advances in capital markets have resulted in several new trading platforms emerging

Emerging payment rails - cryptocurrencies and other new technologies are transforming the way individuals and companies make payments

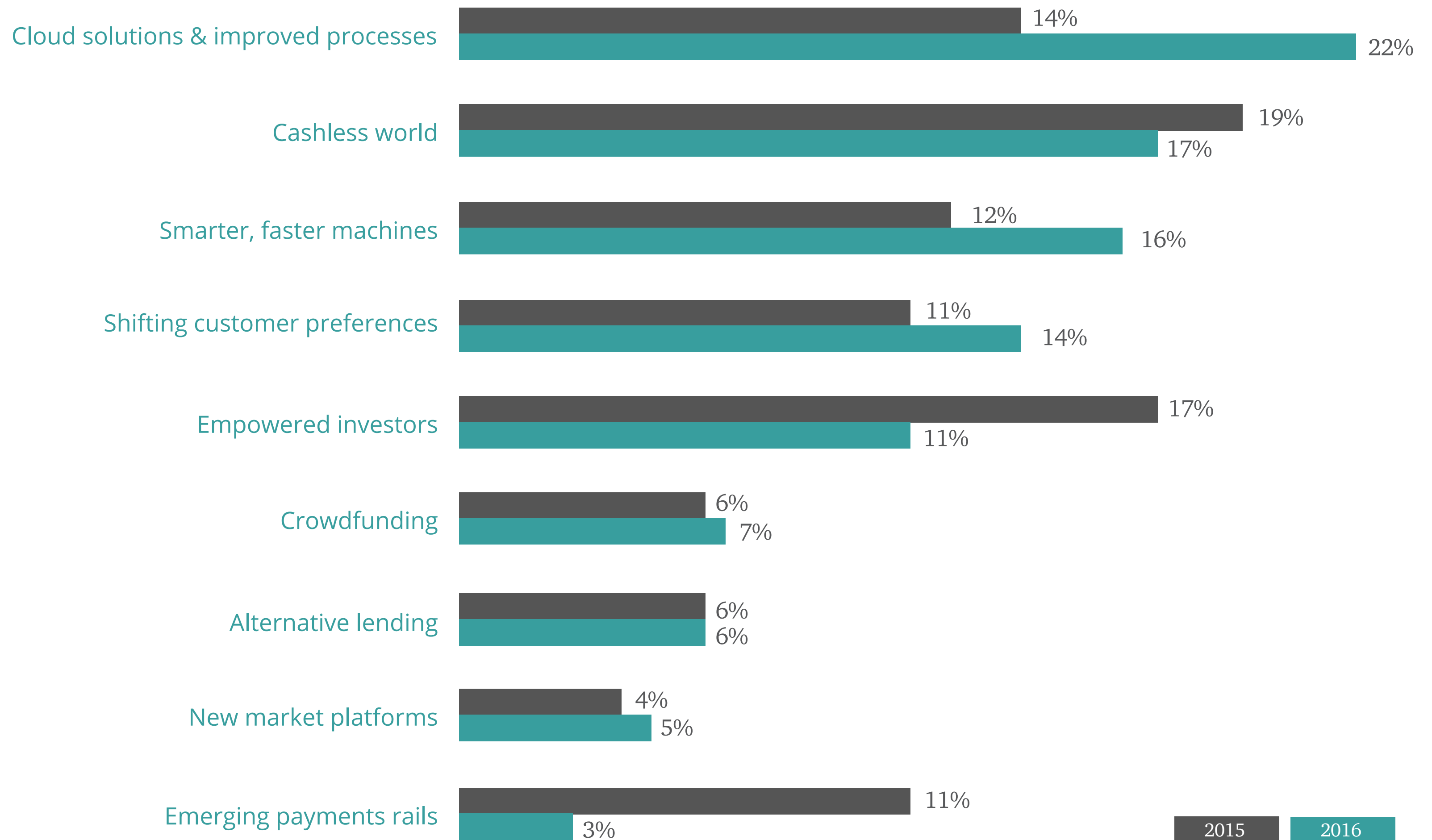
A comparison of 2015 and 2016 Startupbootcamp applications

As the graph to the left shows, 2016 saw a marked increase in the percentage of companies in the cloud solutions category. More start-up businesses are seeking to target established financial services companies looking to improve operational efficiency, reduce costs and become more agile. Smarter, faster machines was the other category in which applications leapt ahead: as our understanding of these technologies gets better, the ability for start-ups to identify real-life examples of human problems that these technologies can address has increased.

By contrast, there were fewer applications from start-ups in the payments sectors, and particularly from those working with cryptocurrencies. Nevertheless, innovation is now moving beyond the achievements already made in the retail sector towards business-to-business (B2B) solutions. “This whole area has been underinvested and has thus suffered from a lack of innovation” says Ben Britt, General Partner at Route66.

In last year’s report, we discussed the strength and continued growth of companies in the empowered investors space. However, this year we have seen a drop of 6% from applications in this category. There are several reasons why this might have occurred. One of the strongest arguments is that successful funding rounds never followed this trend. Although accounting for 17% of applications in 2015, Empowered Investors only made up 6% of successful funding rounds. This lack of support from investors might have dissuaded entrepreneurs from targeting this area.

In other areas, application levels have stayed broadly similar year on year, suggesting steady innovation.

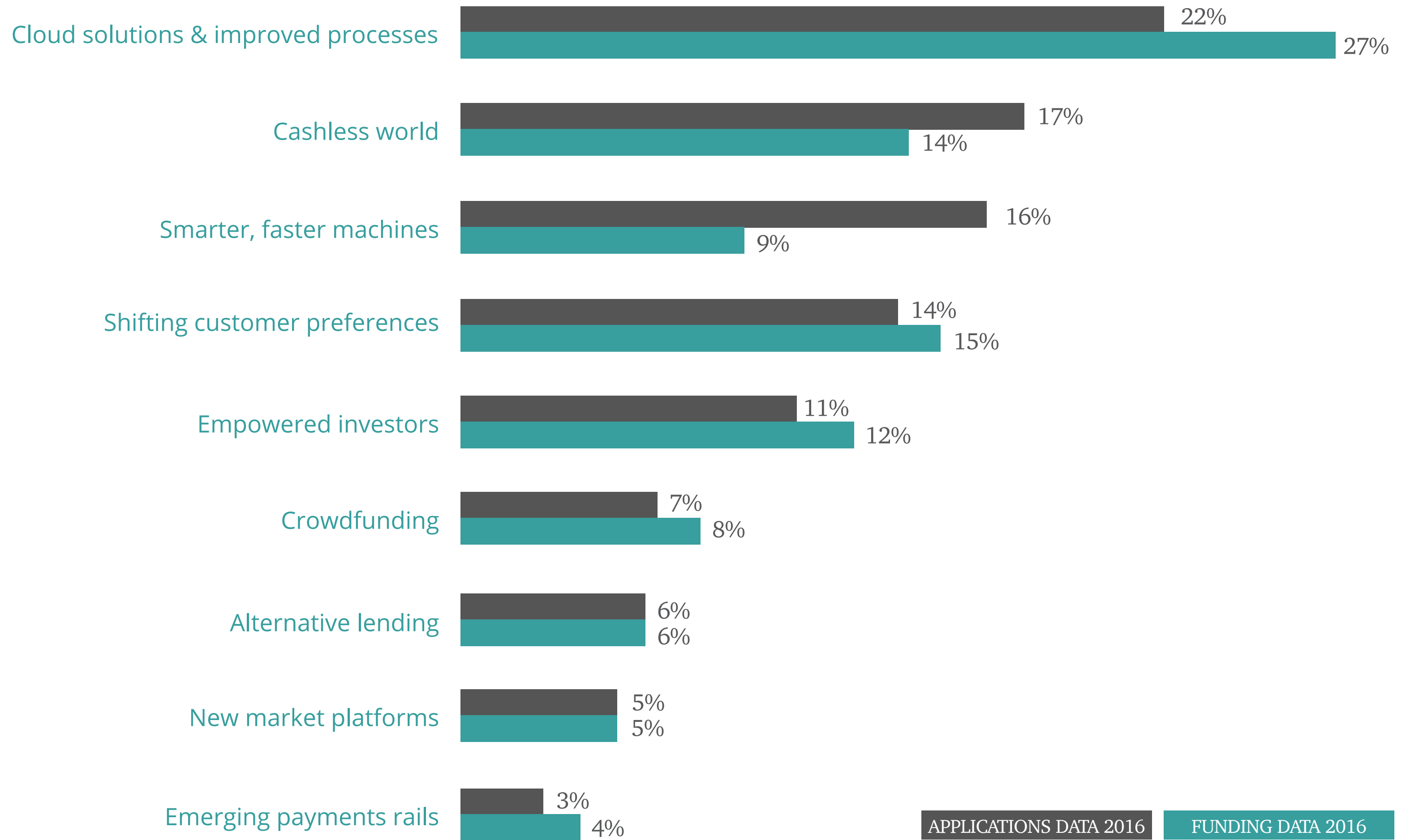

Cloud solutions & improved processes
14%
22%
Cashless world
19%
17%
Smarter, faster machines
12%
16%
Shifting customer preferences
11%
14%
Empowered investors
17%
11%
Crowdfunding
6%
7%
Alternative lending
6%
6%
New market platforms
4%
5%
Emerging payments rails
11%
3%
2015
2016

A comparison of 2016 Startupbootcamp application data and 2016 UK funding data

As we can see on the graph on the left, the funding data we analysed also follows very similar trends to the application data, suggesting a maturing industry. Investors and entrepreneurs are starting to align in their understanding of the key opportunities in the industry. The only significant difference we can see is the lower percentage of the data set invested in smarter, faster machines. This could be because, for a lot of investors, it is too soon for them to be investing in this technology. But it could also be because a lot of the innovation in the space, particularly from blockchain, is occurring within incumbent organisations.

Whilst we analysed both data sets based on the categories above, further analysis was done to get a deeper understanding of what types of business models and technologies these companies used. Some of these categories included blockchain, robo-advisors, challenger banks, AI & machine learning, financial inclusion and more. Through this research, we identified three key trends during 2016:

i. The rise of B2B companies: enablers & disruptors;
ii. The human applications of AI and machine learning are emerging fast;
iii. FinTech companies are starting to serve the un(der)served.


Cloud solutions & improved processes
22%
27%
Cashless world
17%
14%
Smarter, faster machines
16%
9%
Shifting customer preferences
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15%
Empowered investors
11%
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Crowdfunding
7%
8%
Alternative lending
6%
6%
New market platforms
5%
5%
Emerging payments rails
3%
4%
APPLICATIONS DATA 2016
FUNDING DATA 2016

i. The rise of B2B companies : Enablers & Disruptors

The advent of the FinTech sector prompted headlines about the disruptive threat that start-ups posed to the incumbent financial services sector. Applications to the first Startupbootcamp FinTech programme in London three years ago were certainly dominated by start-ups that had ambitions to take market share from the incumbents - including many of the programme's partners - by reinventing traditional models.

This year we have seen the rise of B2B businesses with 56% of applications and 71% of funding rounds coming from start-ups in this space. However, we have seen this increase of B2B from both enablers and disruptors.

The emergence of enabling businesses reflects increasing recognition of the potential for FinTech start-ups technologies and solutions to confront some of the most pressing challenges facing incumbent financial services providers - including their high cost-to-income ratios, which have plagued many large banks and insurers for some years now.

On the other side, traditionally disruptors have been retail companies trying to win over customers from incumbents. However, this year we have seen more disruptors in the corporate space.

Through our analysis we have identified three key types of B2B FinTech start-ups:

Enablers - Improving internal processes - 27% of funding rounds and an 8% rise in applications to Startupbootcamp from businesses in the cloud solutions and improved processes space reflects the need of incumbents to reduce costs, boost customer acquisition and allocate capital more effectively. As PwC reported in its 'Blurred Lines' study last year, there is a need for "solutions that banks can easily integrate or incorporate to improve and simplify operations". A good example of such a business is Trakti, a peer-to-peer platform that enables companies to reduce operational costs linked to contract negotiation by 30%.

Enablers & Disruptors - Trying to scale their business whilst supporting incumbents - start-up businesses seeking to scale

up face challenges that are becoming even more formidable in a crowded FinTech marketplace, but working with an incumbent can be a shortcut to success. Take, for example, moBILLity, which helps customers unlock savings on their bills through a chat-based solution that connects financial and non-financial data; though it is a consumer-facing business, it has also opted to work with banks to serve their customers (and acquire new ones).

Disruptors - targeting small and medium-sized enterprises (SMEs) - this segment has often proved difficult for incumbent financial services companies to serve, requiring complex solutions and offering thin profit margins, but FinTech has been a glimmer of hope for this segment. Start-ups are more suited to dealing with smaller scale organisations and can focus on creating products specifically for SMEs. The Startupbootcamp cohort includes Pace Invoice, which helps SMEs to accept payments from their international customer base, and Penta, a digital banking operation, aimed at German SMEs.

Out of the three different routes that we have seen start-ups take in this area, the SME example is particularly interesting. SMEs represent a large proportion of global GDP - 49.8% in the UK alone - and will become even more important as technology and globalisation reduce the need for economies of scale. “FinTechs have spotted that there are a range of opportunities to support SMEs in running their businesses, leveraging sales, invoicing, payroll and accounting data,” says Jehangir Byramji,Senior FinTech Lead at Lloyds Banking Group. “Banks can work with these FinTechs to help SMEs solve their problems. The Lloyds Bank Business Toolbox is an early example when it launched in 2014”. We can look forward to even more progress being made in the coming year in this space, as more FinTech companies look to target this currently underserved sector.

The continued rise of enablers will also be fascinating to watch in the future. Incumbent financial services companies increasingly recognise that drastic action to improve processes is necessary. Start-ups, meanwhile, have the tools and technologies to help, and can grow quickly by working with the incumbents.

ii. The human applications of AI and machine learning are emerging fast

There is no shortage of technologies with potential for FinTech companies to exploit. The percentage of applications to Startupbootcamp from entrepreneurs in the smarter, faster machines category was 16% in 2016, as the approach of design thinking evolves. We found that applications in this area mainly focussed on artificial intelligence (AI) and machine learning.

AI and machine learning, by which we refer to all the multifarious aspects including deep learning, natural language processing and many more has been a significant trend in FinTech. One in 10 applications to Startupbootcamp last year came from businesses seeking to exploit these technologies.

What we have seen in the past from technology focussed people and organisations is a desire to understand and develop AI & machine learning, with finding a use case often coming as a secondary activity. This year FinTech companies in this space are identifying customer problems to be solved and then considering how technology might help. This is exciting: technology should enable organisations to create value, for both customers and themselves, and the greater the focus on where that value is required, the greater the chances of success.

The financial services sector is certainly not alone in recognising the potential of AI and machine learning, with significant investment in such technologies over the past year coming from corporations including Google, Facebook and Amazon. The global AI market is expected to be worth more than $16bn by 2022, achieving annual growth rates of more than 60% between now and then.

For FinTech companies in particular, potential AI applications are likely to focus on the opportunity to reduce the amount of human resources required for less valuable work, freeing up employees to focus on more value-add areas. Machine learning, meanwhile, offers an opportunity to enhance the customer experience, particularly as businesses learn how to better exploit their data.

“Chatbots” are already a well-established application of AI and machine learning, with tools becoming more accurate and useful as they are used more extensively. Virtual assistants such as Google Voice and Amazon Alexa are increasingly popular. The financial services sector is also making good use of such tools in customer services, particularly in the area of payment systems and online banking.

Enterprise Bot, a member of the 2016 Startupbootcamp cohort, provides a good example of what is already possible, having developed AI-powered virtual assistants that can be deployed as white label solutions on various platforms to improve customer service. “People entering these fields now are not necessarily people from a technology background but from the business side,” observes Enterprise Bot CEO Pranay Jain. “This has allowed for a much better understanding of the problem - AI/blockchain aren't seen individually but rather as tools to solve a problem for banks and consumers.”

There will be further progress in years to come, especially as more data becomes available. Moving on from retail applications, incumbents and start-ups should be looking at how AI and machine learning can solve more complex issues and queries, offering both business-to-consumer (B2C) and B2B functionality.

What about Blockchain?

Blockchain was arguably the most discussed FinTech trend of 2016, dominating technology-related discussions in the financial services sector, amid increasing expectation that it will transform the way businesses transact. However, we have not seen the same traction with blockchain start-ups as we have seen with AI & machine learning. Only 6% of applications to Startupbootcamp came from companies using blockchain technologies - and the majority of those came from start-ups focused on digital currencies, just one of four different lenses through which PwC views this area.

PwC believes there are multiple uses for blockchain across four broad areas of business:

Digital currencies - speeding payment and reducing the cost of cross border transactions both though established crypto-currencies like bitcoin and through the potential for central bank backed digital currency;

Digital assets - recording assets from securities to real estate on a blockchain distributed ledger can simplify settlement of transactions, reduce delay, cut costs and eliminate multiple layers of intermediaries;

Smart contracts - automating the exchange and finalisation of complex agreements such as mortgages, insurance policies, derivatives contracts, letters of credit, providing a single source of the latest version and trusted mechanism to share and agree updates;

Identity - blockchain can support a secure record of personal identity, a tamper proof history of transactions completed and the potential ability for consumers to control information such as no claims history and health records.

One reason that start-up innovation may have slowed down in this space, compared to incumbents, may be that most blockchain solutions are aimed at multiple parties and require cooperation between multiple firms. This is something that smaller start-ups do not necessarily feel they have the reach to do. It may also be that, unlike AI & machine learning, there is less common understanding of blockchain technology which makes it more difficult for entrepreneurs to identify blockchain as a solution to specific business issues.

The key in this space will be to move away from a focus on technology to the problems that blockchain may be able to solve - to put human applications at the heart of development by combining expertise on blockchain with user delivery and experience knowledge.

To achieve success in this field we will also need to see more collaboration between corporates and start-ups. When discussing whether incumbents are winning the race against start-ups in blockchain, Chris Huls a blockchain specialist from Rabobank, argued: “Blockchain is, in the end, all about collaboration, so chances are good that the combination of incumbents and start-ups will win”. We have already started to see progress in capital markets, retail banking and insurance. This will continue to grow, as will other areas of the FS industry such as asset and wealth management.

However, blockchain is becoming industrialised and is starting to become a tool for businesses. There are many start-ups that are currently unrelated to the technology, but have plans to adapt their businesses and use it in their future plans (whether this is to store data or negotiate deals). This means we will start to see fewer “blockchain” start-ups and more start-ups “using blockchain”.

iii. FinTech companies are starting to serve the un(der)served

The issues of financial inclusion and wellbeing have risen steadily up the agenda in recent times, for the financial services sector and its customers alike. For an industry that acknowledges it lost customer trust following the global financial crisis of eight years ago, providing genuine solutions to deep-seated societal problems represents an opportunity to reconnect and reengage. On top of this, global problems, such as the refugee crisis, have heightened public awareness of issues around displacement.

Financial inclusion solutions focus on serving those people who do not currently have access to financial services - and therefore lack freedom of choice or even basic security. Financial wellness, meanwhile, concerns those people whose access is better, but who do not have the knowledge or experience to make financial decisions and use the services available to them effectively.

The numbers are overwhelming. Some 2 billion people worldwide are unbanked and have no access at all to financial services. In the UK alone, 2 million adults aren't using the banking services available to them.

For the financial services industry, where incumbents are operating on thin margins in the face of mounting pressure, reducing these numbers is not an obvious commercial priority. Yet the industry recognises its moral obligation to help. FinTech companies can provide the key. We have already seen technology deliver some advances, with innovation that has seen better provision for underserved customers including the elderly, farmers and SMEs.

In all, 12% of applications to Startupbootcamp last year came from start-ups focused on areas related to financial inclusion and wellbeing. In the past, we have seen the majority of these companies coming from developing regions trying to solve the issue of financial inclusion. This has not changed with one fifth of these companies coming from African (mainly solving issues around payments and money transfers). However, we have also seen strong growth in this area from within the UK and Europe (63% of all the financial inclusion and wellbeing applicants), mainly focussing on financial wellness. This shows that this is an issue that is growing across the world.

“FinTech has widened the opportunity and choice for people wishing to manage their money online. The majority of people banking online report that they ‘worry less’ when they have more choice and control around their real-time money management. This can have a significant impact on wellbeing given that financial stress is ranked as one of the rop causes of mental health issues in the UK.”

Leigh Smyth, Lloyds Banking Group

From our cohort we had two examples of companies that target this space. One is Europeone, which aims to provide banking services to over 30 million Europeans on the move around the continent, who struggle to get service from local banks.

Incumbents will play a role too. Some incumbent organisations, such as Lloyds Banking Group, already have initiatives in place that explicitly focus on addressing social and economic problems. But FinTech companies can do much more to build on such work with financial management tools, education platforms aimed at children and adults, and robo-advice services that will help the financial services industry to substantially reduce the un(der)served population.

“We know that there are more than 13 million people in the UK with low financial capability” comments Leigh Smyth, Head of Digital Inclusion at Lloyds Banking Group. “FinTech has widened the opportunity and choice for people wishing to manage their money online. The majority of people banking online report that they ‘worry less’ when they have more choice and control around their real-time money management. This can have a significant impact on wellbeing given that financial stress is ranked as one of the top causes of mental health issues in the UK”.

Incumbents should be looking to collaborate with these FinTech companies in order to enhance and deliver on their financial inclusion strategies. The un(der)served market is a big challenge and a great opportunity for FinTech. It will also continue to develop as a public policy issue.

Start-ups and corporate collaboration

Key takeaways from this chapter:

Collaboration between FinTech companies and incumbent financial services providers increased significantly during 2016.

Despite more pilots and proof of concepts (POCs) between incumbents and FinTech companies, there needs to be a step forward from incumbents to be more open to fail and learn at speed and differentiate between innovation investment and running change programmes.

More start-ups will emerge with propositions focussing on facilitating collaboration between FinTech companies and incumbents.

A common thread through all the key trends that we have seen in the last year is that there are lots of opportunities for FinTech companies and incumbents to work closely together. While it has taken some time for incumbent financial services businesses to start finding ways to work with emerging FinTech companies, closer collaboration was a clear theme of 2016. We have seen this at Startupbootcamp with many companies from our cohort lining up POCs and pilots with corporates.

An example case study of where corporate collaboration has been successful from the programme is the work Rabobank is doing with Enterprise Bot. Maurits Lancee, innovation manager at Rabobank, discussed the Rabobank and Enterprise Bot Pilot - "During the accelerator program we managed to set up a pilot with Enterprise Bot and Rabobank North America Wholesale Banking. For a chatbot to become client facing, most large financial institutions want to know if the team can deliver, but also if the solution being built is up to their quality standards. In order to keep momentum, a narrow scoped (internal) pilot was agreed upon, with the help of high executive involvement from

the start. In most projects you would see that the corporate would define what is required, after which the start-ups would start working on a solution. However, incumbents often forget to ask what the start-ups need in order to be successful. Think about data and information that is needed, regular IT support, easy access to higher management but also someone who can move obstacles internally. Next to the technical work we are doing with Enterprise Bot, we are also learning a lot about how to improve our collaborations with start-ups."

There is no one-size-fits-all model of collaboration - nor should there be - and the increasing number of instances of incumbents and FinTech companies working together is encouraging. However, there is still a lot of progress to be made. Organisations are struggling to understand how to measure the success of relationships with FinTech companies. Taking a traditional KPI driven approach may not be the correct method, whereas seeing pilots and POCs purely as R&D may lead to few being converted into full-scale partnerships or acquisitions. Where progress needs to be made with incumbent firms is the need to have business led R&D with a focus on implementation. Nevertheless, the direction of travel is to be welcomed and should accelerate.

We can also look forward to more innovation in this space from the FinTech companies themselves. For example, Railsbank, one member of the latest Startupbootcamp cohort, is helping other FinTech companies with the challenge of building relationships and integrating with larger financial services providers. New FinTech start-ups, as well as existing operations expanding across borders, often find it technically difficult to open a banking relationship, which can take as long as nine months. To alleviate this problem, Railsbank has built a banking-as-a-service platform and compliance firewall technology; this connects start-ups to a global network of banks.

It is initiatives such as this that will characterise collaboration between FinTech companies and incumbents as we move forward. They will be crucial if FinTech innovation is to be commercialised and made widely available.

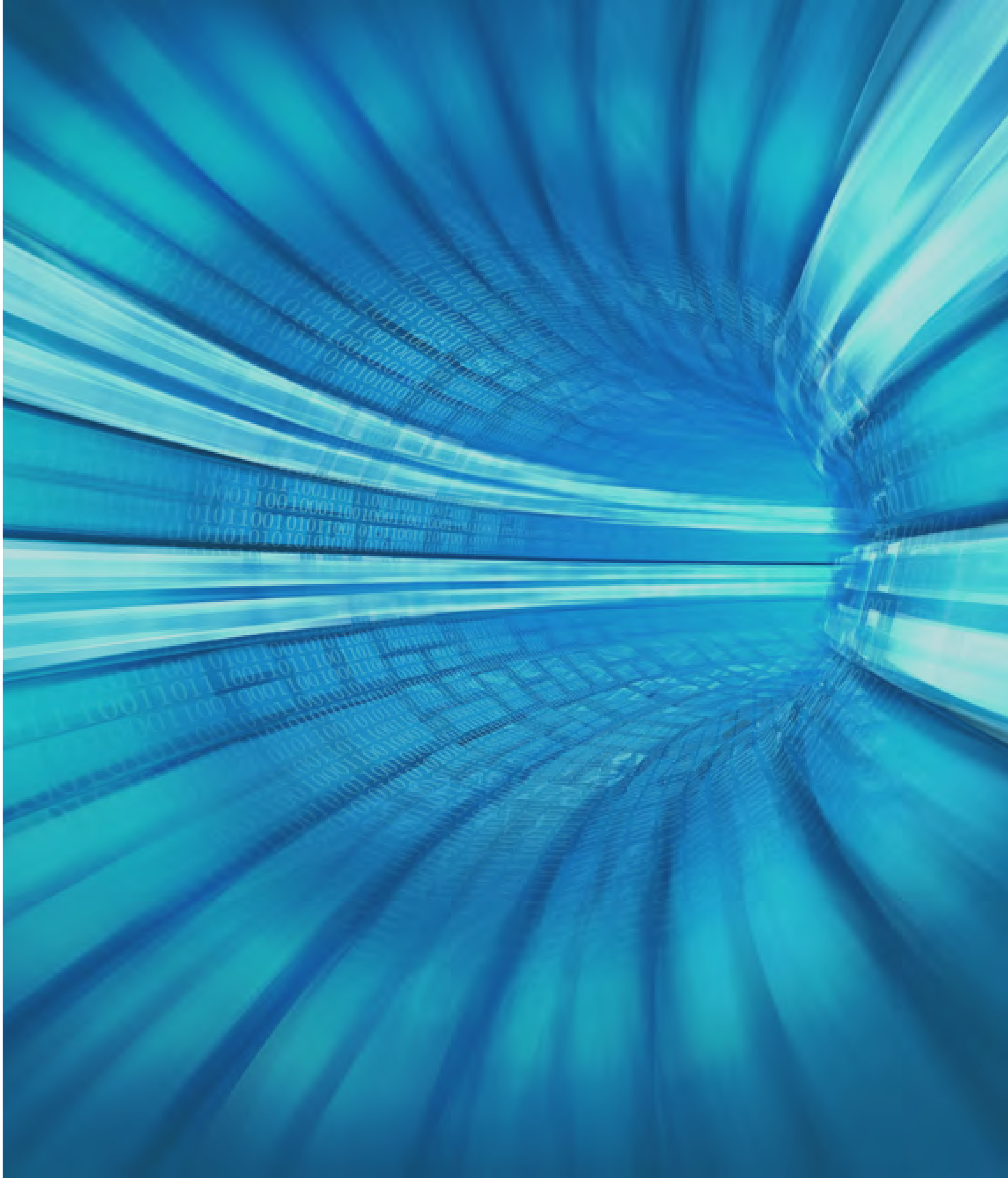
The road ahead

Key takeaways from this chapter:

WealthTech start-ups will move centre-stage as the asset and wealth management sector finally embraces the potential of FinTech innovation.

RegTech will be an important area of focus as compliance pressures continue to mount.

FinTech innovation in banking will move on at speed, as challenger banks launch and expand their offerings and open banking changes the industry landscape.



i. WealthTech

The asset and wealth management (AWM) sector has so far been slower than other areas of financial services to recognise the threats and opportunities that FinTech companies pose. PwC research last year found that 83% regarded FinTech companies as some form of risk to their business. However, one in six didn't see FinTech as a threat at all, while more than a third (34%) said they had no engagement with FinTech companies. No other sector of the financial services industry was so sanguine or disengaged.

However, 2017 will not simply be business as usual. For one thing, FinTech start-ups exploiting technologies, such as artificial intelligence and machine learning, are now in a position to take customers from incumbent asset and wealth management businesses. Also, the imperatives of regulation such as MIFID II and PSD2 to try and make AWM more transparent will require incumbents to adapt quickly and to move away from their legacy systems. With increased competition driving prices down and increased regulation driving compliance costs up, AWM firms are facing huge margin pressures and are looking for lower cost delivery models.

Within wealth management, we will see more incumbents investing in digital solutions to improve their internal processes. This might range from implementing CRM systems to exploring robotic process automation.

Whilst this will help wealth managers to become more efficient, there is also scope to improve the customer experience. Robo-advisors provide a good solution to do this. We are already seeing some new propositions in this space, particularly from a B2B perspective. One example from the Startupbootcamp FinTech programme is Zenith One, an intelligent white label platform aimed at financial advisers who want to work with the next generation of investors more profitably through online and mobile communication channels that are compliant and controlled.

Successful robo-advisor propositions will be those that take a hybrid approach with relationship managers. In Europe, only 23% of high networth individuals are active users of robo-advisors. A third of non-users are aware of robo-advice solutions and would consider using them in the future. This highlights a clear market opportunity if the right solution is discovered.

Furthermore, within asset management we will see similar innovation within organisations to improve internal processes but we'll also see new market platforms emerge that make it easier for asset managers and brokers to find information. One example of this is ZeroFlows, a member of our cohort. ZeroFlows, enables asset managers to access first-hand information and hard to find liquidity in emerging and frontier stock markets on their market platform.

ii. RegTech

The Financial Conduct Authority describes RegTech as "the adoption of new technologies to facilitate the delivery of regulatory requirements", and is supporting start-ups in this area. In a period of consistently rising compliance pressure - as well as the mounting challenge of managing cyber security in a data-focused environment - such innovation will be welcomed across the financial services industry.

All the more so since many incumbent financial services providers have felt compelled to increase compliance hiring and spending; as these incumbents look to protect their margins and reduce costs, they will embrace new technologies.

This year will require the sector to devote resources to regulatory change including MIFID II, PRIIPS and PSD2, as well as to the challenges posed by the UK's decision to leave the European Union. To take MIFID II as just one example, the regulation requires compliant businesses to maintain comprehensive audit trails and more transparent trading systems than ever before. Legacy systems will struggle to cope. Meanwhile customers want more, not less, digitally driven insight and exploration into savings goals.

Against this backdrop, the financial services sector increasingly recognises the need to shift to a new way of working. There is an opportunity to employ technologies that enable a much more agile way of dealing with regulation, reducing the cost of evolving the business in a changing environment.

For these reasons, FinTech companies offering RegTech solutions will find themselves in huge demand during 2017 and beyond. More such businesses are emerging: 4% of applications to Startupbootcamp came from RegTech companies in 2016.

One member of the cohort, KyoLab, provides an example of what is exciting incumbent providers. KyoLab enables clients to archive and monitor mobile messaging, including messages from WhatsApp, WeChat, Yahoo Mobile and others; it provides an audit trail and a basis for dispute resolution for all popular mobile messaging apps and supports devices whether they are company-issued or BYOD (bring-your-own-device). "It is all about identifying and mitigating compliance risks to help businesses ease regulatory costs," says Jan-Michael Gorecki, CEO of KyoLab. "2017 will see further upsurge in RegTech start-ups."

iii. Open banking

The banking sector is set for further FinTech breakthroughs in 2017. As PSD2 and the UK's open banking initiative take centre stage, banks are being forced to provide access to customer accounts through open APIs; competition watchdogs see this as a huge opportunity to increase innovation (and to improve customer choice). At the same time, machine learning, blockchain and internet of things technologies all offer opportunities for banks to improve the way they run, through enhanced risk management, lower costs and greater operational efficiency.

Investment and retail banks have already been enthusiastic participants in blockchain proof-of-concept initiatives and this is likely to progress into live pilots in 2017. Meanwhile, the internet of things could transform the way customers bank, from the in-branch experience to risk profiling of mortgage applications.

Other developments include the increasing need for advanced authentication and onboarding processes in the face of regulatory change. Just 3% of applications to Startupbootcamp's 2016 programme came from businesses working in this area, but this is likely to be due to a crowded market in this space. We will need to see more of these companies being used and integrated into banks processes as we move into a PSD2 world. Furthermore, the number of FinTech start-ups focused on data will increase, as banks seek analytics solutions and machine learning technologies that enable them to generate actionable business insight from the exponential increase in customer information available to them.

The banking landscape has already changed, with challenger banks emerging across Europe in recent years. New entrants to banking, including organisations such as Tandem, Monzo, Starling and Atom, are showcasing what is possible with emerging technologies and operating with cost-to-income ratios far lower than the incumbents. But, while last year was an important period for these challengers, with many releasing minimum viable products (MVP), their share of market is set to increase in 2017 as mobile banking becomes more popular and the new entrants expand their offerings.

"Banking customers will increasingly be attracted to the propositions enabled by open and flexible data", says Lukas Zoener, CEO of moBILLity. "We will see the first huge impact of PSDII throughout Europe in 2017, especially in the UK with very interesting consumer-facing propositions," he predicts.

A closing note from Francisco Lorca

There has been much to talk about in 2016, but for FinTech it was a coming of age year. We have seen this once young sector maturing, with the lines between FinTech companies and incumbents blurring.

In the future, we will probably all smile when we hear the term FinTech. As the whole financial services industry learns how to embrace partnership and collaboration, technology-driven innovation will simply become business as usual. Finance will be made of technology, incumbents and start-ups all intertwined in one place.

The three areas where I have seen this move forward are:

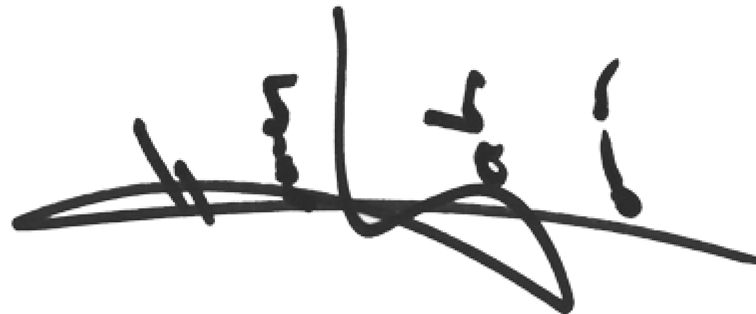
Change of founder profile and professionals working in innovation in banks - Many of the entrepreneurs we have seen emerging in recent years have been seasoned professionals who have been part of the financial services sector in some way or another and are now applying new technologies and new operating models to solve old problems. We have also seen incumbents searching to hire people for their innovation teams that do not necessarily fit the 'traditional' mould in order to encourage a change in the way of working.

Change of mind-set and attitudes - Where once the objective of entrepreneurs was to take on the incumbent providers, we are now seeing more mutually-beneficial partnerships between FinTech companies and established providers than ever before. Incumbents now recognise the threats they face and understand FinTech companies can provide the solutions that will enable them to build much stronger relationships with their clients.

Increase in appetite and execution to carry out pilots - As FinTech companies and incumbents have better understood each other, they have become increasingly more open to new ways of working together. This has allowed the commercialisation of new ideas to accelerate. FinTech companies and incumbents have been testing the boundaries of new technologies and business models from blockchain to AI and machine learning through more pilots. Although a positive, we need to start seeing more of these pilots being transitioned into commercial relationships.

This has all been done under the unstable macro environment of 2016. Despite political, economic and financial uncertainty causing people to believe FinTech might be derailed, at Startupbootcamp we have yet to see any real impact yet. This year, we have seen the sector's entrepreneurs, including the Startupbootcamp FinTech 2016 cohort, consistently proving that they have genuinely transformative ideas to offer - and that these ideas are commercially viable.

One can only imagine what is next to come next, but both incumbents and start-ups should be prepared to embrace the change.



Francisco Lorca, MD of Startupbootcamp FinTech

PwC

PwC works with financial services companies to implement FinTech innovation, from strategy through execution, and helps FinTech start-ups accelerate and scale their businesses to reach their full potential.

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Startupbootcamp FnTech is the leading accelerator focused on financial innovation. We provide funding, mentorship, office space in the heart of London and access to a global network of investors and VCs, for up to 10 selected FinTech start-ups across the globe.

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