Redrawing the lines: FinTech’s growing influence on Financial Services

82% of incumbents expect to increase FinTech partnerships in the next three to five years

77% expect to adopt blockchain as part of an in production system or process by 2020

20% expected annual ROI on FinTech related projects
Key Messages

FinTech and Financial Services are competing less and coming together

More than 80% believe business is at risk

Financial Institutions are embracing the disruptive nature of FinTech

Financial Institutions are learning to partner and integrate

88% of incumbents are increasingly concerned they are losing revenue to innovators

77% of Financial Institutions will increase internal efforts to innovate

82% expect to increase FinTech partnerships in the next three to five years

Key emerging technologies are enabling convergence

Investment in enabling technologies will help narrow the gap

Blockchain is moving out of the lab

Regulations trigger disruption and innovation

30% of large Financial Institutions are investing in Artificial Intelligence (AI)

77% expect to adopt blockchain as part of an in production system or process by 2020

54% of incumbents see data storage, privacy, and protection as the main regulatory barrier to innovation

Managing expectations will be key

The only way to get returns, is to invest to learn

20% expected annual ROI on FinTech related projects
The pace of change in Financial Services seems only to be increasing – as does the urge for the industry to react. The forces shaping this change have led us to reconsider the role of finance, more as an “enabler” than a provider of financial products and services. Mobile money services have proven to be an effective gateway for financial inclusion among the unbanked, a demographic that could evolve into a US$3 trillion payments volume opportunity.¹ Tomorrow, your bankers or wealth manager will coach you throughout your day to take appropriate financial decisions based on a combination of Artificial Intelligence and transaction and contextual data. Frustration and cost will decrease as new business models and emerging technologies are being adopted to streamline onboarding processes, operations and client communication. The influence that FinTech is having on the market is growing and the long-term potential is even greater.

Mainstream Financial Institutions are rapidly embracing the disruptive nature of FinTech and forging partnerships in efforts to sharpen operational efficiency and respond to customer demands for more innovative services. In fact, funding is moving from a venture capitalist dominated field towards more mainstream investments. According to research based on data from PwC’s DeNovo platform, funding of FinTech startups has increased at a compound annual growth rate (CAGR) of 41% over the last four years, with over US$40 billion in cumulative investment.² Cutting-edge FinTech companies and financial innovation are changing the competitive landscape, and are redrawing the lines of the Financial Services industry.

This report assesses the continued rise of new business models and emerging technologies in the Financial Services sector. Our analysis is based on a global survey of 1,308 financial services and FinTech executives and includes insights and proprietary data from PwC’s DeNovo platform.

¹ DeNovo Q2 2016 FinTech ReCap and Funding ReView: The (un)banked is FinTech’s largest opportunity
² We include only non-publicly traded, pure-play FinTech and technology companies focused on the financial services industry. We have excluded China-based transactions from our data due to a concentration of large funding in select transactions. Our data set provides a more informative global view of FinTech funding activity.
FinTech and Financial Services are coming together

FinTech has evolved from startups that want to take on and beat incumbents, to a broader ecosystem of different businesses looking in many cases for partnerships. FinTech startups don’t just need capital, they need customers. At the same time, incumbents need new approaches to drive change and deliver innovation.

Our survey also highlights how innovation is coming from outside financial services and being driven by a variety of sources including tech companies, e-retailers, and social media platforms (see Figure 1). This approach certainly has been prevalent in some Asian markets. The new partnering approach offers alternative strategies for both new entrants and startups but it also carries with it a new set of risks, as we explore further in the survey.

Figure 1: FinTech and disruptive entities

Percentage of respondents who believe entities are likely to be the most disruptive in the next five years

- **E-retailers** are likely to be disruptive by using their large data sets to provide consumer-focused products and services (43%)
- **ICT and large tech companies** are also seen as potentially large disruptors to the FS sector, as they are able to innovate at a far faster pace than incumbents (50%)
- **Traditional Financial Institutions** need to be the most concerned as they are not seen as a disruptive force, but they are best able to leverage FinTech innovation (28%)
- **Social media/Internet platforms** are further entrenching their place as disruptors by leveraging their large client reach to provide new channels for customer service and business models (55%)
- **Startups** are seen as the main disruptors, but many have shifted to B2B models and providing platforms for Financial Institutions (75%)
- **Financial infrastructure companies** should be concerned as more Financial Institutions turn to FinTech infrastructure providers, but they may be seen as enablers of innovation (41%)

Source: PwC Global FinTech Survey 2017
More than 80% believe business is at risk

Many fear losing business to innovators, starting with payments, fund transfer and personal finance sectors. The vast majority (88%) of participants indicated that they are worried that part of their business is at risk to standalone FinTech companies (see Figure 2). This business at risk is due to developments in FinTech and has grown to an estimated 24% of revenues.

More consumers will adopt nontraditional Financial Services providers. Early adopters will most often conduct payment and money transfer activities with nontraditional providers, and personal finance will emerge as the next most populous activity at risk (see Figure 3). Financial Institutions will need to adapt their mindsets to be open to FinTech innovations in order to embrace these developments and keep their customers.

DeNovo’s monthly consumer survey indicates that while 30% of consumers plan to increase their usage of nontraditional Financial Services providers, only 39% plan to continue using solely traditional service providers.
Financial Institutions are embracing the disruptive nature of FinTech

The global financial crisis heralded a prolonged period of business-wide transformation programmes. A decade on, and much investment later, actual outcomes are at best patchy. For many customers and clients, basic products and services look and cost much the same as they did before. Many are therefore looking to embrace FinTech as a way to break this cycle. This embrace isn’t just about the tech, it’s about culture, ways of working, problem solving, customer engagement and new ideas of leadership.

Financial Institutions are putting disruption at the heart of their strategy with 56% of respondents agreeing with this statement, and only small regional differences (from 54% for European respondents to 61% in North America). By becoming self-disruptors, Financial Institutions seek to appropriately respond to innovations and thereby empower their customers on a daily basis. To address customer retention in the context of new “FinTech competition,” Financial Institutions will want to focus on developing intuitive product design, ease of use, and 24/7 accessibility (See Figure 4).

Financial Institutions will also need to disrupt their own operations or processes, which will introduce culture and mindset challenges. Globally, 77% of respondents expect to increase internal innovation efforts over the next three to five years (see Figure 5). This can occur in a variety of ways, including adopting newer technologies such as Artificial Intelligence (AI) or blockchain or changing the cultural environment to one that fosters innovation.

**Figure 4: How to address customer retention**
What do you think are the most important areas to address customer retention in the context of new FinTech competition?

<table>
<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>Faster service</td>
<td>24/7 accessibility</td>
</tr>
<tr>
<td>Payments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset &amp; Wealth Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017

**Figure 5: Changes in internal innovation efforts**
What changes do you expect to see in your internal innovation efforts over the next three to five years?

<table>
<thead>
<tr>
<th>Region</th>
<th>Increase</th>
<th>Stay the same</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>77%</td>
<td>20%</td>
<td>3%</td>
</tr>
<tr>
<td>Africa</td>
<td>89%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>89%</td>
<td>8%</td>
<td>3%</td>
</tr>
<tr>
<td>Latin America</td>
<td>79%</td>
<td>18%</td>
<td>3%</td>
</tr>
<tr>
<td>North America</td>
<td>78%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>Asia</td>
<td>77%</td>
<td>19%</td>
<td>4%</td>
</tr>
<tr>
<td>Europe</td>
<td>75%</td>
<td>22%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Financial Institutions are learning to partner...

FinTech companies create an ecosystem that fosters the collection of vast amounts of data and builds trusted relationships with clientele. Financial Institutions have realised the importance of these ecosystems and are attempting to engage with and bring innovation inside their companies.

Adopting effective growth strategies and integrating with FinTech will be essential to partner for innovation. Partnering with FinTech companies is up from 32% in 2016 to 45% this year on average, but large discrepancies by country do exist (see Figure 6).

In all countries, a large majority of participants, with 82% on average, expect to increase partnerships with FinTech companies over the next three to five years. Partnering with innovators will allow incumbents to outsource part of their R&D and bring solutions to market quickly. FinTech companies also benefit from these partnerships. As they develop new theories and models, in order to test them, they need access to large data sets that incumbents already have. Partnering also gives them access to an existing and large customer base. This is further emphasised by FinTech segments that are starting to transition from purely B2C to B2B. For example, robo-advisory products initially offered as consumer-facing products are now starting to be repositioned as integrated platforms within incumbent Financial Institutions in order to cater to their larger installed client base.

Figure 6: Current and expected partnerships per country

![Percentage of respondents expecting to increase partnerships over the next three to five years and Percentage of respondents currently engaging in partnerships with FinTech companies](source: PwC Global FinTech Survey 2017)
And integrate

Integration will not come easily. There are factors that pose challenges to FinTech companies and incumbents. Differences in management and culture, as well as regulatory uncertainty and legacy technology limitations, are identified by both as being major challenges to working together (see Figure 7). Changes in management and culture concern the business as a whole. By adapting to a more innovation focused culture, incumbents can faster adapt to the ever-changing market. Financial Institutions labour behind a system of checks and balances that can stifle the innovation process, while FinTech companies are generally able to adapt more quickly due to technology advantages and a lack of bureaucracy.

Workplace culture will play an important role in the coming years and incumbents will need to renew their purpose and brand to align with changing expectations in strategic areas such as career path, diversity, flexibility and delivering social value. By implementing a new cultural mind-set companies will be able to find alternative talent sources that will help drive innovation and make working with FinTech companies less challenging.3

Figure 7: Challenges for FinTech companies and incumbents

When working with Financial Institutions (or FinTech companies), what challenges do you face?

<table>
<thead>
<tr>
<th></th>
<th>FinTech</th>
<th>Incumbents</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT security</td>
<td>28%</td>
<td>58%</td>
</tr>
<tr>
<td>Regulatory uncertainty</td>
<td>48%</td>
<td>54%</td>
</tr>
<tr>
<td>Differences in management and culture</td>
<td>55%</td>
<td>40% +1%</td>
</tr>
<tr>
<td>Differences in business models</td>
<td>40%</td>
<td>35% -4%</td>
</tr>
<tr>
<td>IT compatibility</td>
<td>34%</td>
<td>34% +6%</td>
</tr>
<tr>
<td>Differences in operational processes</td>
<td>36%</td>
<td>24% -12%</td>
</tr>
<tr>
<td>Differences in knowledge/skills</td>
<td>33%</td>
<td>24% -5%</td>
</tr>
<tr>
<td>Required financial investments</td>
<td>16%</td>
<td>17% -8%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Note: The percentages at the sides of the graph indicate the change from 2016 to 2017

“Traditional Financial Institutions are too slow in implementing things. For a startup it takes no time to adapt to new circumstances and make changes accordingly. Incumbents take forever. Integrating with them is a nightmare because they lack the culture, know-how, and they lack the incentive.”

CEO of a Latin American FinTech company

“Innovation is happening outside of the organisation, with emergent technologies being leveraged by startups, and if Financial Institutions want to speed up their innovation they need to significantly increase their collaboration with FinTech companies”

Manoj Kashyap, Global FinTech Leader, Partner PwC US

3 PwC, The power to perform: Human capital 2020 and beyond, 2016
Emerging technologies are enabling convergence

FinTech companies are driving market changes by focusing on emergent technologies that will provide a renewed experience for their customers. As incumbents adapt to the market and begin to concentrate on these technologies, they will be able to move closer to FinTech, make use of the technologies to swiftly adjust to the fast-changing environment and regulations, and ultimately provide a better consumer experience.

Investment in enabling technologies will help narrow the gap

The current technological focus of Financial Institutions needs to follow the trends that FinTech companies are setting. Currently, Financial Institutions are concentrating on updating their legacy systems with a strong focus on data analytics and mobile technology (see Figure 8). While most incumbents are struggling to consolidate and manage data and to offer digital customer-service experiences, FinTech companies are putting their spotlight on emergent technologies. Innovators excel at providing products that make existing user experiences better. These developments include technologies such as enhanced biometric security, natural language searches, and chatbots. As they adopt these solutions, they are not only focusing on enhancing client service but also on improving efficiency, reducing costs, increasing security, and making processes more agile. Blockchain, AI, and Biometrics and Identity Management are high on their priority list (see Figure 9).

According to PwC’s DeNovo, recent advancements in AI have pushed the technology to the top of the list for financial services. Startups that apply AI to Financial Services have been funded more extensively, with an average funding of US$1 bn over the last two years.

**Figure 8: Technological areas of investment**

What are the most relevant technologies for your business that you plan to invest in within the next 12 months?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Large FinTech</th>
<th>Large Financial Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analytics</td>
<td>74%</td>
<td>51%</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>Cyber-security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robotics process automation</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Biometrics and identity management</td>
<td>21%</td>
<td>20%</td>
</tr>
<tr>
<td>Distributed ledger technologies (e.g. “blockchain”)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public cloud infrastructure</td>
<td>14%</td>
<td></td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017

**Figure 9: Focus on emerging technologies**

Percentage of large companies that identified these emerging technologies as the most relevant to invest in within the next 12 months

<table>
<thead>
<tr>
<th>Technology</th>
<th>Large FinTech</th>
<th>Large Financial Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blockchain</td>
<td>50%</td>
<td>19%</td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Biometrics and identity management</td>
<td>43%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017

Note: We include only responses of companies with more than 500 employees.
Innovative trends under an industry spotlight

To help industry players navigate the market, we have identified the main trends in the Asset and Wealth Management, Banking, Insurance, and Transactions and Payments Services industries that will be most significant over the next five years.

Figure 10: Trends in FS ranked by importance and likelihood to respond

The size of the bubbles is proportional to the number of related FinTech companies as assessed by the DeNovo platform.

Asset and Wealth Management

1. Increase in digital solutions that firms can integrate to improve operations*
2. Increased innovation in research tools and analytical capabilities to enable better investment decision-making
3. Shift from technology-enabled human relationships to digital experiences with human support

Banking

4. Increased customer empowerment/control of financial matters
5. Emergence of new services and solutions for unserved/underserved customers**
6. Enhanced credit underwriting using non-traditional metrics to determine applicant creditworthiness

Insurance

7. Increased sophistication of data models and analytics to better identify and quantify risk
8. Increased sophistication in methods to reach, engage and serve customers in a highly-targeted manner
9. Rise of aggregators to compare products and services from different providers

Transactions and Payments Services

10. Use of advanced methods, tools and technologies to improve information security and predict, detect and analyse fraud
11. Proliferation of mobile wallets and new payment options
12. Increase in use of consumer data to improve value-added service offerings

* Also the most relevant trend in Banking
** Also a relevant trend for Asset and Wealth Management

Source: PwC Global FinTech Survey 2017 and DeNovo
Banking

Consumer banking will continue to be the epicentre of disruption over the next five years, according to 80% of respondents. Most bankers see personal loans (64%) and personal finance (50%) most at risk in moving to a FinTech company. The focus on intuitive product design, ease of use, 24/7 accessibility, and faster services are seen as the most important areas to address customer retention. However, 63% of bankers see the rise of FinTech as an opportunity to expand products and services. In fact, bankers are increasingly turning to FinTech companies to engage in partnerships (54% vs. 42% last year), and to buy the services of FinTech companies (40% vs 25% last year).

Banks are focusing on the improvement of their operations through digital solutions and are looking to increase customer empowerment and/or control of financial matters (see Figure 10). Based on our survey, banks are also exploring new technologies, such as blockchain, with nearly one-third of respondents stating that they are in the early stages of evaluating their strategy and potential partnerships.

Banks are likely to continue to focus on improvements to their customer experience even if it affects transformational growth opportunities in the short-run and draws attention away from achieving their expected ROI of 20%.

Insurance

Insurance companies (life and non-life) have been accelerating efforts to keep pace with the trends reshaping the market and closing the gap with other financial sectors. In fact, 52% of Insurers continue to see their industry as the second most likely sector for disruption, only after consumer banking. In this context, insurance players are now the most active Financial Institutions and 58% claim to monitor FinTech companies in order to respond competitively. They are increasingly coming together as 45% engage with FinTech companies, compared to 28% last year. Also, 84% will increase FinTech partnerships over the next three to five years.

The increased sophistication of data models and analytics to better identify and quantify risk is seen as the most important trend and the one to which the market is the most likely to respond (see Figure 10). For this reason, Insurers are embracing innovation with a focus on data analytics and 84% are planning to invest in it in 2017.

Incremental innovation may not be enough to sustain profitability in the sector but with an expected ROI of 13%, insurers appear relatively more conservative than other segments of the financial sector.

Transactions and Payments Services

With Fund Transfers and Payments seen by the majority of respondents as areas where consumers are already conducting business with FinTech, 73% of payment companies are concerned that part of their business is at risk to innovators, but this is down from 87% last year. This could point to innovators being seen as less of a threat and more of an opportunity for payments companies, especially as 27% are offering their services to FinTech companies (vs. 17% of respondents across all sectors) and as they are increasingly partnering with them (42% compared to 35% last year).

Payment companies have carefully monitored the rise of FinTech and the implications to their industry, and are investing in technologies (e.g., data analytics, mobile and cyber-security) that closely reflect the most important trends for their industry (see Figure 10). Payment companies are also heavily invested in blockchain technology, with 90% planning to adopt it as part of an in production system by 2020.

Overall, payment companies are confident in their ability to innovate and have high expectations for returns, with an expected annual ROI of 21% on FinTech-related projects.
Blockchain is moving out of the lab

While blockchain was initially explored by the Financial Services sector, the potential of this technology is now being realised by all sectors, including energy, telecoms, and pharma. The technology is moving from hype to reality and we will likely see business use cases becoming more common. This process is still underway, but as more companies are realising the business use cases of blockchain, funding for the technology is increasing. In fact, according to data in PwC’s DeNovo platform, funding in blockchain companies increased 79% year-over-year in 2016 to US$450 mn.

As blockchain becomes part of the strategy, more respondents become familiar with it—with 24% very or extremely familiar versus 17% last year (see Figure 11). North American participants are the most familiar with the technology and we will likely see it being adopted in various timeframes and ways across regions. With the large back-office cost savings and transparency gains from a regulatory and audit perspective that blockchain can provide, it is imperative that respondents understand the potential impact of blockchain on their activities.

Using blockchain in the business will not occur overnight. But with 55% of respondents planning to adopt it as part of a production system or process by 2018, and 77% by 2020, it will rapidly become a common element found in business processes. Some businesses already are making use of the technology. At the end of 2016, a large European bank completed instantaneous payments between two of its clients on a cross-border basis using blockchain technology. This highlights the benefits of using the technology that can eliminate unforeseen charges, delays, and processing mistakes.

The most likely business use cases of blockchain, as seen by 55% of respondents, is in Payments Infrastructure, followed by Fund Transfer Infrastructure (50%), and Digital Identity Management (46%). In fact, the latter is being explored as a possible area of blockchain use by various government services. We have also seen growing interest in the technology from insurance companies in areas such as personal and marine insurance, including claims processes.

The banking sector also has been actively exploring blockchain applications for trade finance and supply chain management. Furthermore, our survey shows that the use of advanced methods, tools, and technologies to improve information security and predict, detect, and analyse fraud is the most important blockchain trend identified and most likely to be responded to by our participants.

Implementing this technology will not come without uncertainty and risks. While most of the technological risks are currently being addressed by developers, academics, and businesses, there is still a lot of regulatory and legal uncertainty for some of the emerging business use cases. With mainstream blockchain arriving soon, regulators need to re-evaluate policies and processes given the enhanced transparency the technology promises.

Figure 11: Familiarity with blockchain

Please describe the extent to which you are familiar with blockchain technology

<table>
<thead>
<tr>
<th>Region</th>
<th>Extremely familiar</th>
<th>Very familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>North America</td>
<td>7%</td>
<td>34%</td>
</tr>
<tr>
<td>Europe</td>
<td>4%</td>
<td>25%</td>
</tr>
<tr>
<td>Africa</td>
<td>2%</td>
<td>21%</td>
</tr>
<tr>
<td>Oceania</td>
<td>5%</td>
<td>18%</td>
</tr>
<tr>
<td>Latin America</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>Asia</td>
<td>4%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Regulations trigger disruption and innovation

The term RegTech has emerged to characterise innovation and emerging tech focused on solving complex regulatory challenges, enabling smarter regulation and reducing complexity in existing regulation and compliance. There are many aspects to this including automation, data and analytics, machine learning and AI, and blockchain and cyber to name but a few.

Historically, regulation was seen as a barrier to entry into Financial Services. The requirements were complex, burdensome and difficult for small new organisations to adopt. Now we see the reverse. Many incumbents are hampered by complex processes and governance they have built up around risk and regulation, and many have also developed a significant degree of risk aversion given some of the headline grabbing issues of the last decade. It’s not surprising therefore to find innovation influencing this area. There is a growing body of complex regulations such as Basel, Dodd-Frank, Comprehensive Capital Analysis and Review (CCAR), General Data Protection Regulation (GDPR), Markets in Financial Instruments Directive (MiFID), Revised Payment Service Directive (PSD2), and so on that lend themselves to solutions that can leverage technology.

These regulatory hurdles can cost the world’s largest banks up to US$4 bn per annum, as many of the processes to address them are still manual. In line with this, survey respondents indicated that regulations in the digital identity authentication and anti-money laundering/know your client (AML/KYC) spaces were strong barriers to innovation (see Figure 12). This is due to the complexity and time consuming nature of managing detailed customer information in a global setting with constantly evolving rules and regulations.

Within the DeNovo platform, we currently follow over 230 startups that help financial institutions manage their regulatory and compliance processes. Funding of these companies has increased at a CAGR of 44% over the last four years with cumulative investment at US$1.4 billion. More relevant trends include 1) the automation of regulatory and compliance processes, typically utilising AI and machine learning, and 2) increased automation of customer identification processes (e.g., KYC/AML) to reduce fraud and improve client interactions.

Regulators are also looking at ways to leverage new technology and analytics to better manage systemic risk and large amounts of data. By accumulating large amounts of data they are able to analyse and assess the market and set the landscape for innovation while ensuring that they evolve. Use of blockchain is also a specific area of interest for regulators given the native ‘regulatory capabilities’ that are embedded in the technology. Transactions can be validated on the fly rather than monitored by intermediaries after the fact.

We are going to see the deployment of ever more sophisticated technology that can monitor, capture and analyse a broad set of data, behaviours, and activity. These are likely to ultimately provide a more comprehensive and efficient approach to regulation and risk management, although there may be some speed bumps along the way.

Figure 12: Regulatory barriers to innovation
In which areas do you see regulatory barriers to innovation in FinTech?

<table>
<thead>
<tr>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data storage, privacy and protection</td>
<td>54%</td>
</tr>
<tr>
<td>Digital identity authentication</td>
<td>50%</td>
</tr>
<tr>
<td>AML/KYC</td>
<td>48%</td>
</tr>
<tr>
<td>New business models (crowdfunding, peer-to-peer lending)</td>
<td>40%</td>
</tr>
<tr>
<td>E-money/cryptocurrency</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017
Managing expectations will be key

Revisiting long-standing assumptions is key. With the infusion of FinTech, Financial Institutions will need to better grasp how quickly technology changes and align this with changing consumer behaviour. Arguably the most important point is that incumbent organisations need to revisit long-standing assumptions. These include rethinking where their competitive strengths rest, how efficient scale can be achieved, what consumers expect of their Financial Institutions, the nature of the competition, and how these might be changing.

The only way to get returns is to invest to learn

Prioritising the innovation process is key for Financial Institutions. The opportunities surrounding FinTech innovation are massive. The Financial Services industry has allocated considerable amounts of capital to projects and initiatives that leverage new technologies and innovative business models in order to respond to industry change. However, many of the institutions engaged in the FinTech journey are challenged by the evolution and are uncertain of the expected returns. Our survey shows that expanding products and services is by far the number one opportunity related to FinTech across all regions (60% of all participants globally) except in Oceania, where participants put more emphasis on cost reduction. Increasing their customer base is also highly ranked by African and Asian participants (see Figure 13).

Figure 13: Opportunities related to the rise of FinTech

In your opinion, what are the opportunities related to the rise of FinTech within your industry?

Source: PwC Global FinTech Survey 2017
Financial Institutions must familiarise themselves with new technologies, assess the implications of various trends, prioritise impact, effort, and opportunity. Multiple emerging digital technologies are changing the traditional way of doing business. In reaction to this, most respondents (51%) are monitoring FinTech in order to respond competitively, with a high of 63% in North America and a low of 38% in Asia.

There are multiple challenges in incorporating innovation into their organisations, including aligning innovation with strategic priorities, building capabilities to ensure agile development and prototyping, as well as commercialising solutions. In order to start seeing possible returns, Financial Institutions will need to streamline their innovation process from the idea generation phase through to commercialisation. While the majority of respondents (61%) see themselves as good at generating ideas, only 41% see themselves as good at developing minimum viable products (MVPs) and 28% as good at co-creating with startups.

Investing to learn is a long process that requires a cultural environment that fosters innovation and attracts talent. A common concern for both incumbents and FinTech companies is that, on average, 80% have trouble hiring and retaining people with the necessary skill-sets needed for innovation. While innovation might be natural for FinTech companies, they have the added challenge of persuading people to join a company with no brand power that might not pay as well as popular tech businesses. This innovation culture should flow through the whole organisation, rather than simply being considered a matter for the R&D lab.

Financial Institutions may eventually be able to achieve their expected ROI through a combination of incremental returns and transformational growth opportunities. On average, participants expect a 20% return on investment (ROI) on FinTech-related projects, with Asian participants’ expecting marginally higher (see Figure 14) and insurers being more conservative than other Financial Institutions, with a 13% expected ROI. Incremental returns can be gained in many ways, including adoption of one of the solutions brought by innovators. But innovation portfolios should also look for transformational growth, such as core business models to better leverage new ecosystems and/or improve positions towards end customers.

Figure 14: Expected ROI on FinTech related projects

<table>
<thead>
<tr>
<th>Region</th>
<th>Expected ROI (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>20</td>
</tr>
<tr>
<td>Asia</td>
<td>25</td>
</tr>
<tr>
<td>North America</td>
<td>23</td>
</tr>
<tr>
<td>Latin America</td>
<td>22</td>
</tr>
<tr>
<td>Africa</td>
<td>18</td>
</tr>
<tr>
<td>Oceania</td>
<td>16</td>
</tr>
<tr>
<td>Europe</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: PwC Global FinTech Survey 2017

“We monitor FinTech activity and report on it, but we struggle to take any action.”

Head of innovation at a European insurance company
Conclusion – Innovation aligned with objectives

The Financial Services industry will be unrecognisable in five years. The innovators of today will not necessarily be the innovators of tomorrow. As younger generations enter the market they will expect the same level of service and innovation that they get from the American GAFA (Google, Apple, Facebook, and Amazon) or Asian BATX (Baidu, Alibaba, Tencent, or Xiaomi) companies. The question then that companies need to ask themselves is: what can I do to ensure that I am not caught at the back of the pack?

To remain at the centre of the Financial Services industry in the future, your innovation journey should be part of an overall strategic agenda and align with all your company’s objectives. While navigating through regulatory compliance, legacy IT issues, cybersecurity, or talent retention risks, innovation needs to be embedded in all aspects rather than being treated as a separate initiative. A focus on the following six factors will help you solidify your approach to innovation:

• **Evaluate emerging technologies**
  Companies need to take a new approach to evaluating the technology coming from innovators. Only by having a team dedicated to monitoring the new technologies globally will companies truly be able to understand their potential for disruption.

• **Take a partnership perspective**
  Partnering implies a coming together of skills and talents and learning from each other. However, companies need to ensure that whomever they partner with, be it a tech company or Financial Institution, is a good fit.

• **Integrate to innovate**
  Legacy systems need to be updated to be able to adapt to future environments and innovate. Incumbents should make use of modern cloud-based or open-source systems utilised by FinTech companies, and they should work together to integrate new technologies in already existing architecture.

• **Create an IT culture that will support innovation**
  Changing an IT culture from one that inhibits innovation to one that is agile and modern will ensure that processes are smooth and new products and services are developed more seamlessly.

• **Concentrate on the customer’s voice and shift thinking to outside in**
  Companies need to listen to the customer’s voice. By analysing data from a variety of sources to ensure that they are focused, they will be able to design and develop new products and adapt older ones to be customer-centric.

• **Foster a company culture that supports talent and innovation**
  A culture that supports innovation in house will attract the right talent. Having the right skill-sets needed to further innovation will ensure that companies are not caught on the back foot and fall behind.

By focusing on these factors, companies will be able to fully leverage the current and future ecosystems that are being created by innovators. The future Financial Services industry will be customer-centric, technologically up-to-date, and supportive of internal and external innovation efforts.
Participant profile

The 2017 Global FinTech survey was based on the responses of 1,308 participants, principally chief executive officers (CEOs), directors /department heads, heads of IT/digital/technology, and other top management involved in strategy and innovation from 71 countries and across six regions.

They are involved in a variety of areas of the Financial Services industry, including banking, asset management, fund payments and institutions, insurance/reinsurance, and FinTech, among others. Most are from large companies, but small- and medium-sized firms are represented.

Figure 15: Type of companies
- Bank 32%
- Asset management company 6%
- Insurance/reinsurance company 14%
- Other 11%
- Fund transfer and payments institution 3%
- Securities broker/investment advisor 4%
- FinTech company 24%
- Venture capital/private equity firm 4%
- Mobile operator 2%

Source: PwC Global FinTech Survey 2017

Figure 16: Origin of participants
- Africa 3%
- Asia 33%
- Europe 39%
- Latin America 13%
- North America 9%
- Oceania 3%

Source: PwC Global FinTech Survey 2017

Figure 17: Type of respondents
- CEO 21%
- Director/head of department 15%
- Head of IT/digital/technology 8%
- Other 26%
- CFO 6%
- CDO/business development 5%
- Head of strategy 4%
- Head of innovation 4%
- Head of products 4%
- COO 4%
- CRO/risk manager 3%

Source: PwC Global FinTech Survey 2017
DeNovo serves as the digital front door on innovation to PwC’s Financial Services practice, providing on-demand consulting delivered by experts in innovation within financial services and emerging technology.

**What is DeNovo?**
DeNovo is a self-serve platform with access to PwC’s subject matter experts. Use DeNovo to understand what innovation is happening, where in your value chain it is occurring, how to leverage technologies and trends, and which companies are doing the innovating. You can ask questions, get practical answers, and better understand how innovation is impacting your business. DeNovo makes innovation practical.

**Take action more quickly**
Have the information you need to drive more revenue, identify more customers, or cut expenses. DeNovo eliminates the noise and provides you with a pragmatic approach to applying emerging technologies.

**Access experts on-demand**
Get direct access to PwC’s dedicated subject matter experts and access to PwC’s 12,000 Financial Services specialists worldwide.

**Request consulting on-demand**
Through custom strategy projects and individual company analysis to help form your business strategy.

**Who uses DeNovo?**
DeNovo helps financial services executives and their teams. DeNovo benefits analysts who need to answer strategic questions with practical recommendations, strategists who need to understand the competitive landscape to formulate business and technology strategies, and technologists who need to know how to practically apply digital innovation to improve their processes and client experience.

To try DeNovo for free, or upgrade to DeNovo Premium for deeper strategic analysis and direct access to subject matter experts, please visit https://denovo.pwc.com.
Acknowledgment

We would like to thank Dariush Yazdani, Grégory Weber, and the PwC Global research team for their involvement in the development of this report. We would also like to thank Javier Baixas, Barry Benjamin, Roberto Hernandez, Stephen O’Hearn, Aaron Schwartz, Jamie Yoder, Kevin Gannon, Michael Raneri, Áine Bryn, and the Global Financial Services Marketing team for their contributions.

For more information concerning the Global FinTech report, please contact Áine Bryn on +44 (0) 20 7212 8839 or aine.bryn@uk.pwc.com. For queries about the data within this report, please contact Grégory Weber on +352 49 48 48 6175 or gregory.weber@lu.pwc.com.

This publication has been prepared for general guidance on matters of interest only, and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, PwC does not accept or assume any liability, responsibility or duty of care for any consequences of you or anyone else acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it.

For more information about the global Financial Services marketing programme, please contact Áine Bryn on +44 (0) 20 7212 8839 or aine.bryn@uk.pwc.com.