Redrawing the lines:
FinTech’s growing influence on Financial Services
Ireland 2017
Fintech Survey | 2017

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76% concerned about losing revenue to innovators

71% expect to increase FinTech partnerships

8% expect ROI from FinTech projects
This report assesses the continued rise of FinTech and emerging technologies in the financial services sector. With new business models, the pace of change in financial services seems only to be increasing. In the future, bankers or wealth managers will expect customers to take financial decisions based on a combination of artificial intelligence, even greater automation, less human intervention and new payment options. FinTech is having a growing influence on the market and the long-term potential is even greater.

Following on from the inaugural PwC study in 2016, this report aims to assess the FinTech revolution and how the financial services industry is getting to grips with innovation globally and in Ireland. It draws on over 1,300 business leaders around the world, including over 40 in Ireland, involved in a variety of areas of financial services: banking, asset & wealth management, fund payments, insurance and FinTech. The report also includes insights from PwC’s DeNovo platform.

Like global companies, Irish respondents are very concerned about the potential disruption from FinTechs, with the majority expecting revenue loss of up to 40%. While disruption is closer to the business strategy for Irish firms compared to global peers, asset & wealth management and insurance are sectors in Ireland that will see a surge in disruption from FinTechs. The survey highlights that while Irish financial services firms may be good at innovation, they are getting poor returns from FinTech related projects.

Other key findings for Ireland include:

- Over three-quarters (79%) of Irish financial institutions expect to increase internal innovation efforts over the next three to five years and is slightly higher than global counterparts. They are also likely to generate more ideas (72%) compared to global counterparts (61%). However, less than half (46%) admit that they are good at commercialising these ideas. It is not surprising, therefore, that the expected annual return from FinTech related projects in Ireland is just 8% compared to 20% globally.
- Adopting effective growth strategies and integrating FinTech will be essential and partnering with innovators is becoming more popular. 71% of Irish firms expect to increase FinTech partnerships over the next three to five years, but is below the global trend (82%).
- Over half (59%) of financial services firms are concerned about IT security when dealing with FinTechs - a similar proportion (58%) plan to invest in cybersecurity in the year ahead and is significantly higher than global plans (32%).
- Leveraging data analytics is seen as the greatest opportunity (54%) relating to the rise of FinTech. Aligned to this, data analytics is the most relevant technology for investment for Irish firms (81%).
- Nearly half (46%) see improving customer retention as an opportunity from FinTech compared to just 28% for global peers. And with more online purchasing, around half (49%) of Irish respondents plan to invest in mobile technology in the year ahead.
- Investment in Artificial Intelligence and the Internet of Things is significantly behind global peers
- Just over one in ten (14%) said that they are familiar with blockchain compared to 24% globally.
- Irish firms are less likely to respond to many of the emerging trends for specific industries: asset & wealth management, banking, insurance and payments.

We see mainstream financial institutions rapidly embracing the disruptive nature of FinTech. Irish companies are forging partnerships in an effort to sharpen operational efficiency and better respond to customer demands. Cutting-edge FinTech companies and financial innovation are changing the competitive landscape, reshaping the financial services industry. We see FinTechs focusing on customers and serving them in new ways, even if that means disrupting how they and others operate. This will be a game-changer in the future.

While FinTech is a game-changer and will disrupt financial services, Brexit is the other major uncertainty. Whilst many FinTech companies are already based in Ireland, significant numbers of EU nationals had also moved to the UK to work in the technology industry. In a Brexit scenario, restricting the free movement of labour may present a challenge for UK-based tech teams. English is the language of business for most top international technology companies. This presents an opportunity for Ireland, as the only English-speaking location in the EU, particularly as Irish financial services organisations are planning to increase partnerships with FinTechs. Ireland has a real opportunity to become a global centre for FinTech, but we need to continue to communicate our attractiveness.

Ronan Fitzpatrick
Digital & FinTech Leader
PwC Ireland
Fintech and Financial Services are coming together.
**Fintech and Financial Services are coming together**

The survey highlights that disruption over the next five years will come from a number of sources. In Ireland, social media websites and internet platforms will be the most disruptive entities in the next five years, followed by ICT companies and start-ups. Globally, however, it is expected that start-ups will be the greatest source of disruption. Traditional financial institutions are expected to be the least disruptive.

Fintech has evolved from start-ups that want to challenge incumbents, and take their market share, to a broader ecosystem of different businesses looking for partnerships. At the same time incumbents need new approaches to drive change and deliver innovation. The partnership approach offers alternative strategies for both new entrants and start-ups but it also carries with it a new set of risks.

**Figure 1: Fintech and disruptive entities**

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

<table>
<thead>
<tr>
<th>Entity</th>
<th>2017 Ireland</th>
<th>2017 Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social media websites/internet platforms</td>
<td>68</td>
<td>55</td>
</tr>
<tr>
<td>ICT and large tech companies</td>
<td>66</td>
<td>50</td>
</tr>
<tr>
<td>Start-ups</td>
<td>64</td>
<td>75</td>
</tr>
<tr>
<td>Financial infrastructure companies</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>E-retailers</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>Traditional financial institutions</td>
<td>20</td>
<td>28</td>
</tr>
</tbody>
</table>

**76% fear they will lose business to Fintechs**

Many fear losing business to Fintech innovators. Over three-quarters of Irish respondents are concerned that part of their business is at risk to being lost to standalone Fintech companies over the next five years, but they are slightly less concerned (83%) compared to last year. Nearly two-thirds (63%) said that up to 40% of their revenues is at risk of being lost to Fintechs over the next five years (Global:63%).
Figure 2: Percentage of incumbents who believe part of their business is at risk
Do you believe that part of your business is at risk of being lost to standalone FinTech companies within the next five years?

Global 2017: 88%
Global 2016: 83%
Ireland 2017: 76%
Ireland 2016: 83%
Similar to last year, the sector likely to be impacted the most by FinTech over the next five years is consumer banking. The Investment & Wealth management and Insurance sectors will see a step-up in disruption compared to this time last year, according to the survey.

The survey suggests that consumers are largely happy to deal with FinTechs. Reflective of the focus in Ireland on the payments industry, Irish consumers are more likely than global consumers to engage in payment activities with FinTechs. Other areas where consumers are more likely to conduct activities with non-traditional providers are money transfers and insurance products. 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 30% of consumers plan to increase their usage of non-traditional Financial Services providers and only 39% plan to continue using solely traditional service providers.

**Figure 3: Which part of the financial sector is likely to be the most disrupted by FinTech over the next five years?**

<table>
<thead>
<tr>
<th></th>
<th>Ireland 2017</th>
<th>Global 2017</th>
<th>Ireland 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer banking</td>
<td>64%</td>
<td>72%</td>
<td>64%</td>
</tr>
<tr>
<td>Fund Transfers &amp; Payments</td>
<td>48%</td>
<td>54%</td>
<td>50%</td>
</tr>
<tr>
<td>Investment &amp; Wealth Management</td>
<td>41%</td>
<td>36%</td>
<td>18%</td>
</tr>
<tr>
<td>Brokerage services</td>
<td>27%</td>
<td>19%</td>
<td>22%</td>
</tr>
<tr>
<td>Insurance</td>
<td>23%</td>
<td>25%</td>
<td>19%</td>
</tr>
<tr>
<td>Fund operators</td>
<td>18%</td>
<td>9%</td>
<td>n/a%</td>
</tr>
<tr>
<td>Commercial banking</td>
<td>16%</td>
<td>35%</td>
<td>12%</td>
</tr>
</tbody>
</table>
Financial institutions are embracing the disruptive nature of FinTech

Retaining existing customers is just as important as gaining new ones. A decade on since the global financial crisis and there is a perspective that the market still contains the same basic products and services, but the speed of evolution has been slower than in other industries. Many financial services institutions are looking to FinTech as a way to embrace innovation. But it is not just about the technology, it’s also about culture, ways of working, customer engagement and new ideas for leadership.

According to the survey, addressing customer retention in the context of new ‘FinTech competition’ for financial institutions will mean greater focus on product and platform design, cost, better customer services and 24/7 accessibility. Irish organisations are more inclined to see disruption closer to the heart of their business. 62% of Irish respondents agreed with the statement that financial institutions are putting disruption at the heart of their strategy (Global:56%).

Figure 4: Activities incumbents believe consumers are already conducting with FinTech companies

What financial activities do you believe your customers already conduct with FinTech companies?

All figures represented below in %

62% are putting disruption at the heart of their strategy
Financial institutions will also need to disrupt their own operations or processes, which will introduce culture and mind-set challenges. Over three-quarters of Irish respondents expect to increase internal innovation efforts over the next three to five years and is slightly ahead of global counterparts (77%).

Emerging technologies such as Artificial Intelligence, Blockchain and robotics, will no doubt have a great role while a shift in the cultural environment takes place to foster greater innovation.

**Figure 5: 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>Feature</th>
<th>2017 Ireland</th>
<th>2017 Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use, intuitive product design</td>
<td>75%</td>
<td>80%</td>
</tr>
<tr>
<td>Design of interface/platform</td>
<td>66%</td>
<td>44%</td>
</tr>
<tr>
<td>Cost (cheaper, lower rates)</td>
<td>57%</td>
<td>53%</td>
</tr>
<tr>
<td>Superior customer service (friendly help chats, etc)</td>
<td>52%</td>
<td>54%</td>
</tr>
<tr>
<td>24/7 accessibility</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Better product design</td>
<td>43%</td>
<td>39%</td>
</tr>
<tr>
<td>Faster service</td>
<td>43%</td>
<td>56%</td>
</tr>
</tbody>
</table>
Figure 6: “My organisation has put disruption at the heart of its strategy”

<table>
<thead>
<tr>
<th></th>
<th>Ireland</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>41%</td>
<td>25%</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>21%</td>
<td>31%</td>
</tr>
<tr>
<td>Disagree</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>11%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Figure 7: 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></th>
<th>Ireland</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase</td>
<td>79%</td>
<td>77%</td>
</tr>
<tr>
<td>Stay the same</td>
<td>21%</td>
<td>20%</td>
</tr>
<tr>
<td>Decrease</td>
<td>-</td>
<td>3%</td>
</tr>
</tbody>
</table>
Financial institutions are learning to partner...but Ireland slightly behind the curve

FinTech companies have excelled at collecting vast amounts of data and build trusted relationships with customers. Financial institutions are attempting to keep ahead and engage with and bring innovation inside their organisations. Adopting effective growth strategies and integrating FinTech will be essential to partner for innovation.

The survey shows that, Irish companies are less likely to engage in partnerships than their global counterparts. However, partnering with FinTechs in Ireland is up from 2016 levels.

Partnering with innovators will allow incumbents to outsource part of their R&D and bring solutions to the 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 to roadtest new products and services with.

Integration

Integration does not come easily. There are factors that cause challenges to FinTech companies and traditional financial services institutions. IT security and differences in management culture are top of the list for financial institutions when dealing with FinTechs. Regulatory uncertainty (78%) is by far the top concern for FinTechs when dealing with financial institutions, and has increased since last year (69%). Just a third are concerned about differences in management & culture compared to 55% globally.

59% of financial services are concerned about IT security when dealing with FinTechs

We are seeing changes in management and culture concern financial services businesses as a whole. By adapting a more innovation focused culture, incumbents can faster adapt to the ever-changing market. 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.
Figure 9: Challenges for FinTech companies and incumbents

As a Financial Services Institution what challenges do you face when dealing with FinTechs?

- IT security (59% 2017 Ireland, 58% 2017 Global)
- Differences in management & culture (45% 2017 Ireland, 40% 2017 Global)
- IT compatibility (38 2017 Ireland, 34 2017 Global)
- Regulatory uncertainty (34 2017 Ireland, 34 2017 Global)
- Required financial investments (31 2017 Ireland, 17 2017 Global)
- Differences in operational processes (28 2017 Ireland, 24 2017 Global)
- Differences in knowledge/skills (14 2017 Ireland, 24 2017 Global)
- Differences in business models (10 2017 Ireland, 35 2017 Global)

As a FinTech company, what challenges do you face when dealing with traditional financial services organisations?

- Regulatory uncertainty (78% 2017 Ireland, 69% 2017 Global)
- Differences in operational processes (44% 2017 Ireland, 38% 2017 Global)
- IT security (47% 2017 Ireland, 43% 2017 Global)
- Differences in business models (44% 2017 Ireland, 36% 2017 Global)
- Differences in knowledge/skills (40% 2017 Ireland, 31% 2017 Global)
- Differences in management & culture (33% 2017 Ireland, 33% 2017 Global)
- IT compatibility (54% 2017 Ireland, 55% 2017 Global)
- Required financial investments (22% 2017 Ireland, 34% 2017 Global)

All figures represented below in %
Irish companies investing in Irish FinTechs

According to the research, over one in two (59%) Irish companies do not have a strong bias towards engaging with Irish organisations having a base here. However, Irish firms do predominantly engage with Irish FinTechs. Over half (52%) of Irish firms said that they had engaged with FinTechs based in Ireland; 29% said these FinTechs were UK based, 29% were in the US and 25% were in Europe.
Emerging technologies are enabling convergence
Emerging technologies are enabling convergence

FinTech companies are driving market changes by focusing on emerging technologies to drive enhanced customer engagement. But just one in five (20%) of Irish respondents believe that traditional financial services institutions are likely to be the most disruptive in the next five years. As traditional financial services companies begin to embed these technologies, they will become more aligned with FinTechs, adjusting more swiftly to the fast-changing environment and regulations, and ultimately provide a better customer experience.

The survey highlights greater investment by financial institutions in data analytics and cybersecurity by Irish companies in the year ahead compared to global counterparts. However, Irish organisations expect to invest less in Artificial Intelligence, Blockchain and the Internet of Things.

Currently we see financial institutions updating their legacy systems with a strong focus on data analytics and mobile technology while investing in cybersecurity. Many are struggling to consolidate and manage data to offer digital customer-service experiences. FinTechs, on the other hand, are putting the spotlight on emerging technologies such as artificial intelligence, robotics, 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.

According to PwC’s DeNovo, recent advancements in AI have pushed the technology to the top of the list for financial services. Start-ups that apply AI to financial services have been funded more extensively, with an average funding of US$1 billion over the last two years.
Figure 10: Technological areas of investment

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

- **Data analytics**: 81% Ireland, 74% Global
- **Cybersecurity**: 58% Ireland, 32% Global
- **Mobile**: 49% Ireland, 51% Global
- **Robotics process automation**: 33% Ireland, 30% Global
- **Artificial Intelligence**: 16% Ireland, 34% Global
- **Public cloud infrastructure**: 14% Ireland, 14% Global
- **Distributed ledger technologies (i.e. Blockchain)**: 7% Ireland, 20% Global
- **Biometrics and identity management**: 7% Ireland, 21% Global
- **Internet of Things (IoT)**: 7% Ireland, 14% Global

**Blockchain becoming mainstream**

We see some businesses around the world already making use of blockchain technology. For example, 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.

**In Ireland**, 14% of respondents confirmed that they are either very or extremely familiar with blockchain, compared to 24% globally. Furthermore, the survey suggests that 45% of Irish respondents say blockchain is not part of their strategic plans (Global: 40%). Nearly a quarter (23%) are either in the early stages of evaluating the technology or experimenting with it compared to 30% globally.

**Just 14% of Irish respondents are familiar with blockchain**
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 will not occur overnight. But with 89% of respondents in Ireland planning to adopt it as part of a production system or process by 2018 (Global: 55%) and 100% by 2020 (Global: 75%), it will rapidly become a common element found in business processes.

The most likely business use case for blockchain in Ireland is in funds transfer infrastructure (44%) followed by payment infrastructure (38%) and post trade settlement (29%). Globally, the most likely business use case is payment infrastructure (55%) followed by funds transfer infrastructure (50%) and digital identity management (46%). The latter, in fact, is being explored by 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.

Globally, the banking sector also has been actively exploring blockchain applications for trade finance and supply chain management. The research highlights 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.

Around the world, the potential of blockchain is now being realised by all sectors, not just financial services, including energy, telecoms and pharma. The technology is moving from hype to reality and we will likely see blockchain increasingly integrated into business models. As more and more organisations see the business case for blockchain, funding for the technology is increasing. According to PwC’s DeNovo platform, funding in blockchain companies increased 79% to US$450 million in 2016 over 2015.

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 significant regulatory and legal uncertainty for some of the emerging use cases. With mainstream blockchain usage coming closer, regulators need to re-evaluate policies and processes given the enhanced transparency the technology promises.
Regulations trigger disruption and innovation

RegTech characterises innovation and emerging tech focused on solving complex regulatory challenges, enabling smarter regulations and reducing complexity in existing regulation and compliance. There are many aspects to this including automation, data and analytics, machine learning, AI, 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 influence 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) that lend themselves to solutions that can leverage technology.

Complying with these regulatory requirements costs 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, Irish survey respondents said that anti-monetary laundering/know your client (AML/KYC) and data storage/privacy protection were the greatest regulatory barriers to innovation and were of more concern than global counterparts. 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.
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 in real time 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.

Within the DeNovo platform, we currently follow 230 start-ups 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.
Managing expectations will be key
Managing expectations will be key

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 huge. 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. The survey shows that the greatest opportunity for Irish businesses from the rise of FinTech is leveraging data analytics followed by improving customer retention. Globally, the greatest opportunity by far is expanding products and services.

54% of Irish respondents say that leveraging data analytics is the greatest opportunity related to the rise of FinTech

Figure 14: Opportunities related to the rise of FinTech
In your opinion, what are the opportunities related to the rise of FinTech within your industry?

- Leverage existing data and analytics: 54% (Ireland), 46% (Global)
- Improve retention of customers: 46% (Ireland), 28% (Global)
- Expand products and services: 43% (Ireland), 60% (Global)
- Respond to competition faster: 40% (Ireland), 38% (Global)
- Increase customer base: 37% (Ireland), 44% (Global)
- Reduce headcount: 29% (Ireland), 30% (Global)
- Differentiate: 26% (Ireland), 29% (Global)
- Decrease IT infrastructure costs: 17% (Ireland), 19% (Global)
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, just over a third Irish respondents (43%) are monitoring FinTech in order to respond competitively compared to 51% for global counterparts. Other key ways in which Irish respondents are dealing with FinTechs, according to the survey, are engaging in partnerships with and buying services from FinTech companies.

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. Ireland is ahead of global counterparts for innovation. Nearly three-quarters (72%) of Irish respondents see themselves as good at generating ideas (Global: 61%), 42% see themselves as good at design thinking (Global: 36%) and 46% see themselves good at commercialising ideas (Global: 43%).

**Figure 15: How are you currently dealing with FinTech companies?**

<table>
<thead>
<tr>
<th>Action</th>
<th>2017 Ireland</th>
<th>2016 Ireland</th>
<th>2017 Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>We monitor FinTech in order to respond competitively</td>
<td>43%</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>We engage in partnerships with FinTech companies</td>
<td>35%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>We buy the services of FinTech companies to improve our operations and services</td>
<td>14%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>We offer services to FinTech companies</td>
<td>23%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>We set up venture funds to find FinTech companies</td>
<td>17%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>We acquire FinTech companies</td>
<td>14%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>We rebrand purchased FinTech services (white labelling)</td>
<td>11%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>We do not deal with FinTechs/Don’t know</td>
<td>15%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

72% score themselves well when it comes to generating ideas
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 in Ireland is that, on average, over two-thirds (68%) 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 multinational 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 return on investment (ROI) through a combination of incremental returns and transformational growth opportunities. Irish respondents revealed that just 13% of their annual turnover is allocated to FinTech matters (IT resources, IT projects etc) compared to 15% globally. On average, participants in Ireland expect just an 8% return on FinTech related projects compared to 20% globally. Insurers globally are 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.

The survey highlights the key threats related to the rise of FinTech as being increased price competition, loss of market share and information security.

Irish respondents expect an 8% annual return on investment from FinTech related projects compared to 20% globally.
“We monitor FinTech activity and report on it, but we struggle to take any action.”

Head of innovation at a European insurance company

Figure 18: What are the threats related to the rise of FinTech within your industry?

All figures represented below in %
Innovation aligned with objectives

The financial services industry will be unrecognisable in five years time. 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, that it 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 service 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, 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. Also having an awareness on the potential for external collaboration and partnerships could accelerate access to new ideas or technologies and supplement internal talent or skills gaps.

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.
Appendices
1. Innovative trends under an industry spotlight

To help industry players navigate the market, we have identified the main trends in Banking; Insurance; Asset & Wealth Management and Transaction & Payment Services industries over the next five years.

Banking

Ireland: Consumer banking will continue to be the epicenter for disruption over the next five years according to nearly two-thirds (64%) of Irish respondents (Global: 72%).

Irish banks rate the emergence of new services and solutions as much less important compared to global peers and are also much less likely to respond to this trend. Irish banks also view the increase in digital solutions to improve operations as far less important than global banks. They are also less likely to respond to the increasing trend of customer empowerment.

Global: Most bankers around the world 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 important areas to address customer retention. And 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 improvements of their operations through digital solutions and are looking to increase customer empowerment and/or control of financial matters. Based on the survey, banks around the world 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 return on investment of 20%.

Only 50% of Irish bankers say new services is an important trend

<table>
<thead>
<tr>
<th>Important</th>
<th>Likely to respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced credit underwriting using non-traditional metrics to determine applicant credit worthiness</td>
<td>87%</td>
</tr>
<tr>
<td>Increased customer empowerment/control of financial matters</td>
<td>76%</td>
</tr>
<tr>
<td>Increase in digital solutions that firms can integrate to improve operations</td>
<td>63%</td>
</tr>
<tr>
<td>Rise of marketplace lending</td>
<td>63%</td>
</tr>
<tr>
<td>Emergence of new services and solutions for under served customers</td>
<td>50%</td>
</tr>
</tbody>
</table>
Insurance

Ireland: Nearly a quarter (23%) of Irish survey respondents say that insurance is likely to be the most disrupted by FinTech over the next five years (Global: 25%). 41% of Irish respondents say that insurance is most at risk in moving to FinTech (Global: 42%).

Irish insurers see the increased sophistication of data models and analytics to better identify and quantify risk as more important than global peers and are also far more likely to respond. Interestingly, the emergence of autonomous vehicles impacting auto claim frequency and severity is seen as much more important than global peers but Irish insurers are far less likely to respond.

Global: Insurance companies around the world have been accelerating efforts to keep pace with the trends reshaping the market and closing the gap with other financial services. Over half (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, a large majority (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 the most important trend and the one to which the market is the most likely to respond. For this reason, insurers around the world are embracing innovation with a focus on data analytics and 84% are planning to invest in it in the year ahead.

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

### Figure 20: Insurance: Trends in FS ranked by importance and likelihood to respond over the next five years

% who said trends are important or very important
% who said they will likely or very likely respond to these trends

<table>
<thead>
<tr>
<th>Important</th>
<th>Likely to respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased sophistication in methods to reach, engage and serve customers in a highly-targeted manner</td>
<td>100% 93%</td>
</tr>
<tr>
<td>Increased sophistication of data models and analytics to better identify and quantify risk</td>
<td>100% 93%</td>
</tr>
<tr>
<td>Rise of aggregators to compare products and services from different providers</td>
<td>86% 78%</td>
</tr>
<tr>
<td>Emergence of connected cars and autonomous vehicles impacting auto claim frequency and severity</td>
<td>72% 66%</td>
</tr>
<tr>
<td>Consolidation of ‘as-a-service’ solutions enabling outsourcing of core insurance functions</td>
<td>58% 69%</td>
</tr>
</tbody>
</table>

**Increased sophistication of data models much more in the spotlight for Irish insurers compared to global counterparts**
Asset & Wealth Management

Ireland: Over a third (41%) of respondents say that investment & wealth management is likely to be the most disrupted sector by Fintech (Global: 36%). Over half (53%) believe that wealth management is most at risk from FinTech disruption over the next five years (Global: 52%). The emergence of new services and solutions is by far the most important emerging trend for asset & wealth managers based in Ireland. At the same time, increased innovation in research tools and analytics for better decision-making and the automation of asset allocation are trends that are seen as much less important in Ireland compared to global peers.

Global: The survey highlights that asset & wealth managers globally are too complacent about disruption to fully take advantage of FinTech. They are aware of the disruption in the industry as 41% believe their customers are already conducting business with FinTechs and 60% see wealth management activities at risk of moving to a FinTech company. However, they seem to be following the traditional approach to innovation and focusing on short-term initiatives rather than considering significant changes to respond to the market.

FinTechs and asset & wealth managers are just beginning to come together, with only 30% engaging in partnerships. Asset & wealth managers are likely to invest in technologies that will improve operational efficiency and increase innovation in research tools and analytical capabilities in order to improve decision-making.

With the FinTech mindset in its infancy in the asset & wealth management industry, achieving their expected return on investment of 24% will be challenging. 95% of Irish wealth managers see the emergence of new services as an important trend but are less likely to respond.

Figure 21: Asset & Wealth Management: Trends in FS ranked by importance and likelihood to respond over the next five years

% who said trends are important or very important
% who said they will likely or very likely respond to these trends

<table>
<thead>
<tr>
<th>Important</th>
<th>Likely to respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>Global</td>
</tr>
<tr>
<td>Emergence of new services and solutions for under served customers</td>
<td>95%</td>
</tr>
<tr>
<td>Shift from technology-enabled human relationships to digital experiences to digital experiences with human support</td>
<td>89%</td>
</tr>
<tr>
<td>Increase in digital solutions that firms can integrate to improve operations</td>
<td>83%</td>
</tr>
<tr>
<td>Increased innovation in research tools and analytical capabilities to enable better investment decision-making</td>
<td>76%</td>
</tr>
<tr>
<td>Automation of asset allocation and how wealth is managed</td>
<td>64%</td>
</tr>
</tbody>
</table>
Transaction & Payment industry

Ireland: In general, Irish respondents are less likely to respond to important emerging trends. Several trends, such as the increased use of consumer data to improve payments and the use of advanced technologies to improve customer security, are identified as very important, but the likelihood to respond is not high.

Global: With fund transfers and payments seen by the majority of respondents as areas where consumers are already conducting business with FinTechs, 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 payment 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 cybersecurity) that closely reflect some of the most important trends for their industry. Payment companies are also heavily invested in blockchain technology, with 90% planning to adopt it by 2020.

Irish Payment industry less likely to respond to many important trends

<table>
<thead>
<tr>
<th>Important</th>
<th>Likely to respond</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ireland</strong></td>
<td><strong>Global</strong></td>
</tr>
<tr>
<td>Increase in use of consumer data to improve proliferation of mobile wallets and new payment options</td>
<td>90%</td>
</tr>
<tr>
<td>Value-added service offerings</td>
<td>82%</td>
</tr>
<tr>
<td>Rise of peer-to-peer payment solutions</td>
<td>80%</td>
</tr>
<tr>
<td>Use of advance methods, tools and technologies to improve information security and predict, detect and analyse fraud</td>
<td>80%</td>
</tr>
<tr>
<td>Rise and adoption of next-generation point of sale solutions</td>
<td>72%</td>
</tr>
</tbody>
</table>

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. The Irish Payment industry is less likely to respond to many important trends.
2. DeNovo

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-service 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 may need to answer strategic questions with practical recommendations, strategists who need to understand the competitive landscape to formulate business and technology strategies, and technologies who need to know how to practically apply digital innovation to improve their processes and client experience.

For more information on DeNovo please contact Ronan Fitzpatrick on ronan.fitzpatrick@ie.pwc.com or call Ronan on 01 792 8287
3. Participant Profile / Contacts

The 2017 Global FinTech survey was based on the responses of 1,308 participants, principally chief executives officers, directors, department heads, heads of IT/digital/technology and other top management involved in strategy and innovation from 71 countries across six regions including over 40 in Ireland. Participants are involved in a variety of areas of financial services including: banking, asset management, fund payments, insurance and FinTech. Most are from large companies but small and medium sized firms are represented also. The survey was carried out in spring 2017.

Activities in which Irish respondents are involved in:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset &amp; Wealth management</td>
<td>41%</td>
</tr>
<tr>
<td>Asset servicing</td>
<td>27%</td>
</tr>
<tr>
<td>Transaction &amp; Payments</td>
<td>25%</td>
</tr>
<tr>
<td>Banking</td>
<td>18%</td>
</tr>
<tr>
<td>Capital Markets</td>
<td>18%</td>
</tr>
<tr>
<td>Insurance</td>
<td>16%</td>
</tr>
</tbody>
</table>

Further reading:

Redrawing the lines: FinTech’s growing influence on Financial Services - Global 2017
Blurred lines: How FinTech is shaping Financial Services - Ireland 2016