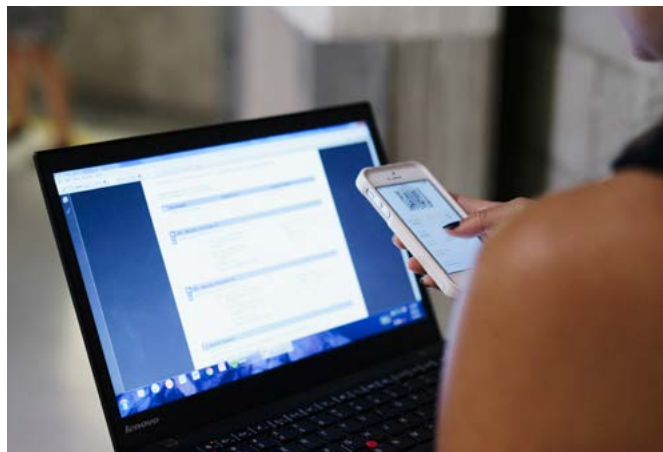


Opportunities await: How InsurTech is reshaping insurance

Global FinTech Survey
June 2016



74%

Three in four insurance companies believe that some part of their business is at risk of disruption

32%

Almost a third of insurers do not deal with FinTech at all



Key messages



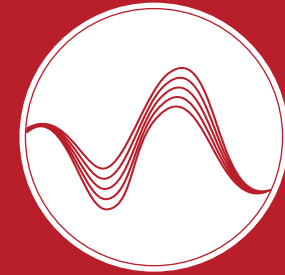
Nine in ten insurers fear losing part of their business to FinTechs



Margin pressure and loss of market share are top FinTech-related threats



Innovation drivers: new customer needs and deeper risk insights



Little responsiveness to emerging innovation waves – insurers focus on commonly adopted trends



Insurers are closing existing gaps around customer centricity and digital channels



Three in four industry players (74%) acknowledge ongoing disruption; most are dealing with FinTechs at different levels



Cooperation with FinTechs is key to connect management cultures and bridge gaps over regulatory and IT concerns

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“Regulatory and capital barriers to enter the insurance industry limit the impact of ‘standalone’ FinTechs. However, the marriage of FinTech capabilities with a backer who brings in capital, regulatory fit and a recognised brand would be transformational for the sector.”

Relationship Management Director/SVP at a large insurer from the UK.



Introduction

Many believe insurance is on the brink of a major disruption, but few are putting InsurTech at the heart of their strategy.

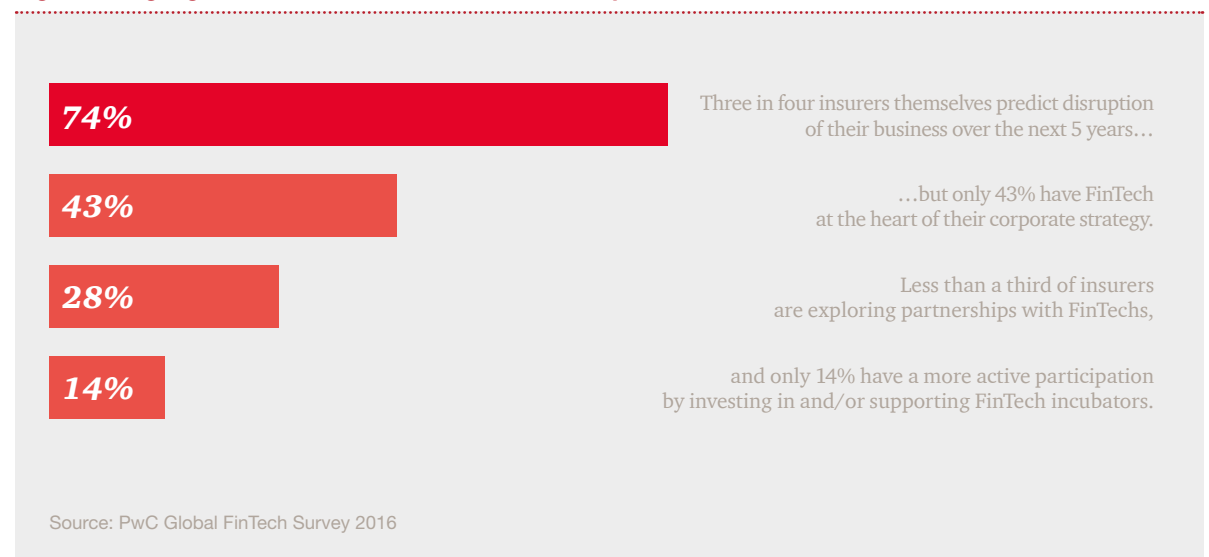
Insurance companies are very much aware of the FinTech revolution: 74% of respondents see FinTech innovations as a challenge for their industry. There is good reason to believe that insurance is indeed heading down the path of disruptive innovation, whether it is the effect of an external factor, such as the rise of the sharing economy, or the ability to improve operations using artificial intelligence (AI).

However, despite these emerging trends, a disconnect exists between the amount of disruption perceived and insurers' willingness to invest to defend against and/or take advantage of the innovation: 43% of the industry players claim they have FinTech at the heart of their corporate strategies, but only 28% explore partnerships with FinTech companies and even less than 14% actively participate in ventures and/or incubator programs (figure 1).

Incumbent insurers who are currently focused on catching up with their competitors around customer centricity and other current trends are missing the opportunity to become proactive. They need to create a clear and consistent message that will demonstrate their willingness to play in the new InsurTech space and act accordingly – only such an approach will position incumbents to be front-runners in the new insurance era.

InsurTech is the FinTech sub-segment addressing existing insurance challenges and opportunities.

Figure 1: Highlights from the PwC Global FinTech Report 2016

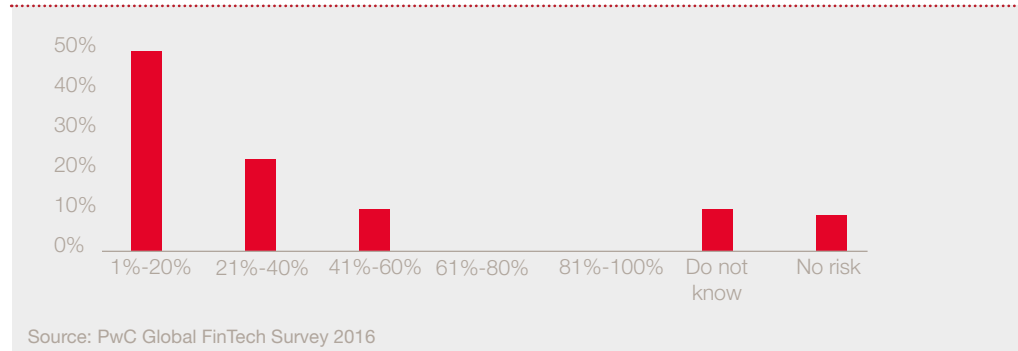


Crouching margins, hidden opportunities

Nine in ten insurance executives, the greatest percentage out of the financial sector, believe that at least part of their business is at risk to FinTech. However, they also see opportunities that the innovative solutions may bring.

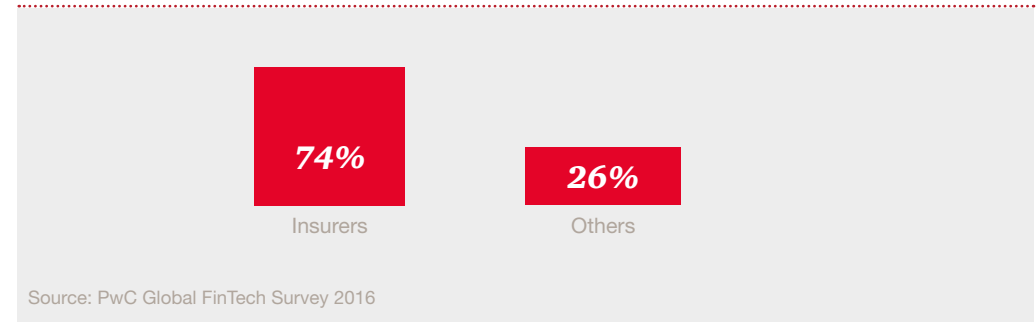
Over a third of traditional operations might be lost due to FinTech popularisation; this pessimistic—or realistic, as some might claim—view is shared by one in three insurance executives (figure 2). In fact, less than one in ten believes that FinTech poses no risk to their business.

Figure 2: What percentage of your business is at risk of being lost to standalone FinTech companies within five years?



Perception of the level of innovation deriving from FinTech in the next five years is three times higher in the views of insurers than perceived by external, non-insurance observers (figure 3). For “outsiders” FinTech-caused innovation happens mostly in banking and other financial sectors. The impact of FinTech on insurance may be further underestimated by “outsiders” due to high barriers to enter the market and stringent regulations.

Figure 3: Proportion of insiders (insurers) and outsiders (other financial sector players) who agree with this statement : "Insurance is likely to be one of the most disrupted industries by FinTech in the coming 5 years."



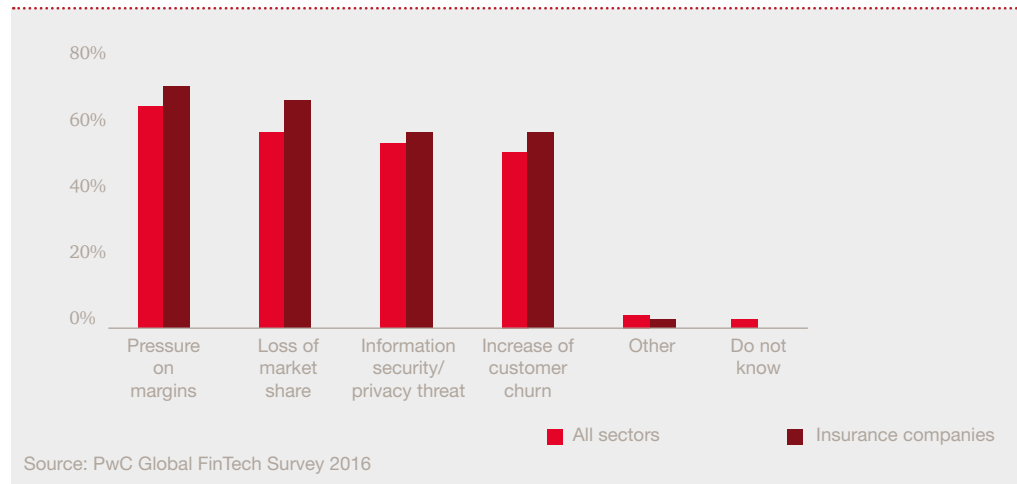
Notwithstanding, the threat of FinTech believed by “insiders” is well grounded, as it is gaining significant momentum in an industry that is mainly driven by data insights. Venture capitalists are looking very closely at start-ups dedicated to reinventing the way people buy insurance, how insurers manage risk, and bring solutions for new needs, like shared economies. Based on companies followed in our DeNovo platform¹, annual investments in InsurTech start-ups have increased fivefold over the past three years, with cumulative funding reaching USD 3.4 billion since 2010.

¹ DeNovo represents the next generation of strategy consulting – a new platform powered by PwC’s Strategy& that is focused on FinTech. Please refer to the Appendix on page 18 for details.

However, since insurance players have an in-depth overview of the situation they better understand how technology is changing the sector and what the potential opportunity areas are. An insider understands how emerging technology can be leveraged to comprehend risk insights, enable the business with sophisticated operational capabilities or utilise new approaches to underwriting and predicting loss. This expert view of the industry is key to anticipate how new technologies will drive insurance disruption as, in fact, most of the industry improvements are being driven by innovation in other ecosystems, such as Internet of Things (IoT), drones, advanced driver assistance systems (ADAS), connected health, etc. (see following sections for more details).²

Insurers are no different from other financial sector players when identifying top threats related to the rise of FinTech: margin pressure (concerning 73% of respondents) and losing market share (69%) are

Figure 4: In your opinion, what are the threats related to the rise of FinTech within the financial services industry?



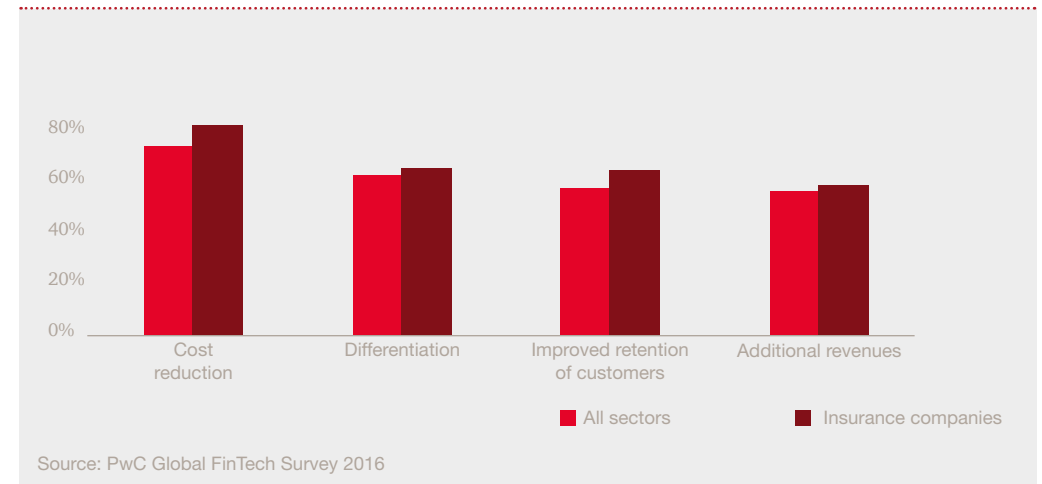
“The balance of our business has other barriers to entry, and we will make use of FinTech concepts.”

CFO at a large insurer from South Africa

what they fear the most (figure 4). Concerns related to an increase of customer churn are also high on the insurance agenda: 59% of insurance survey participants deem it challenging, a second-highest percentage in the financial sector, just after fund transfer & payments companies. This converts into a growing need to optimise the cost structure, while bringing a value proposition to a market adapted to the new context.

From the insurers’ perspective, the most significant gain from FinTech is cost reduction (figure 5). A move towards cloud-based platforms means not only lower up-front costs, but also smaller ongoing infrastructure spending. Only this innovation, when compared to mainframe-based technologies, could reduce costs up to tenfold. Disintermediation, self-servicing and automation of core insurance functions will lead to further savings.

Figure 5: In your opinion, what are the opportunities related to the rise of FinTech within the financial services industry?



² See also *InsurTech: A golden opportunity for insurers to innovate*, PwC, March 2016.

Changing expectations and deeper risk insights

Social and technological trends, which shifted customer needs and expectations, are a source of opportunity for tech-savvy insurers. Those market players who have been taking action and adapting their offerings to changing client demands will at least maintain their market position.

However, this does not guarantee them a truly competitive advantage, since fast-followers can quickly replicate their innovative value propositions. Notwithstanding, by adapting FinTech solutions, incumbents have the opportunity to position themselves as leaders in innovation.

In addition, other areas of opportunity relate to using technology and data to enhance operations and business functions. For example, some insurers use AI technology to enhance internal operations. This has improved their efficiency and automated processes around customer-facing roles, underwriting and claims processing. Such improvements constitute an important base for building a competitive advantage and becoming market front-runners. Such innovative changes, however, demand a deep, strategic approach and decisions around how a company wants to understand and manage risks.

Meeting new needs

From an external perspective, the key business impact that insurers expect from FinTech is the challenge of meeting changing customer needs and the ability to match new offerings with their expectations (figure 6). Clients now expect personalised insurance solutions, and “one size” simply does not fit all. Being active in FinTech could help incumbents discover emerging coverage needs and risks that require new insurance products and services to insure new practices: more and more individuals around the globe are taking advantage of game-changing solutions – they might be a host, a driver or simply a peer that wants to share risk with others.

Insurers also expect to see a growing need to enhance interactions with clients and introduce sophisticated solutions. For example, well-established players could benefit heavily from FinTechs by leveraging their ability to provide a seamless customer experience – often using new service concepts, like robo-advisors.

Another example is linking crowdsourcing with insurance is the P2P insurance business model which is based on the sharing economy concept. Crowdsourced insurance provides access to cost-effective risk capital by bringing together a pool of policyholders.

The incorporation of FinTech solutions will not only result in a better client experience, but will also bring the opportunity to have more and better touch-points in a business where experience delivery mainly happens around buying, billing and claims.

Figure 6: In which areas do you see the most important impact to your business from FinTech?



Leveraging data

In parallel, and from an internal perspective, FinTech is enabling traditional insurers to leverage existing data to generate deeper risk insights. Embracing FinTech could help incumbent insurers gather more insightful and higher quality figures – a game changer, since insurance is a business relying on data risk insights. It would not only increase the speed of servicing and lower costs, but also open the way for ever greater product precision and customisation.

IoT is not only the industry's buzz word but can prove to be very efficient in generating insights from external data sources. Some concrete examples are telematics and real-time weather observation that include sensors – analysis of the gathered data can identify unsafe driving, industrial equipment failure, impending health problems, and more. The sensor-driven approach is also being explored in life insurance by using lifestyle data as input. In turn, digital technology could extend the reach of life, annuities and pension coverage into largely untapped areas such as younger and lower income segments by reducing costs and allowing businesses to engage with customers in more compelling and relevant ways.³ In commercial lines, in turn, input from sensor data could be an important indicator in prevention.

Furthermore, behavioural analytics and advanced data analysis capabilities can help insurance companies gain a deeper understanding of behavioural trends, customary aspects and habits of individuals, allowing for the development and creation of customised solutions and better real-time and fast-track customer service. For example, in-car sensors are already used to measure how safely policyholders drive and offer lower premiums to more careful road users. According to the Association of British Insurers, telematics subscriptions are expected to grow by around 80% a year to reach more than 100 million worldwide by 2018.⁴

Another recently mobilised mechanism, in this example employed to assess claims, is the use of drones leveraging unstructured data, such as aerial images. This technology could be used to capture images remotely, without having humans – insurers and/or clients – access the affected area. Image analytics provides a “panoramic” approach allowing both the insurer and/or the affected client to understand and assess the extent and the severity of damage in real time. Claims assessment and compensation process could take a lot less time.

Better risk underwriting

Traditional insurers find FinTech solutions valuable when developing new approaches to underwriting risk and predicting losses. Protection-based models are shifting to more sophisticated preventive models that facilitate loss mitigation in all insurance segments.

The ability to capture and analyse data from different sensors and sources in near real time opens the door to more pro-active prevention models. From driving alerts to industrial equipment failure notices, this information will allow insurers to develop new approaches to more actively manage risk, most times in collaboration with the insured. We will see a shift from protection to prevention models, and even to deterministic models as has already happened in crop insurance.

³ PwC, *Insurance 2020 & beyond: necessity is the mother of reinvention*, 2015.

⁴ Association of British Insurers, *Global insurance telematics subscriptions to exceed 100 million by 2018, but auto insurance faces dramatic changes*, 6 June 2013.

Learning to surf innovation waves

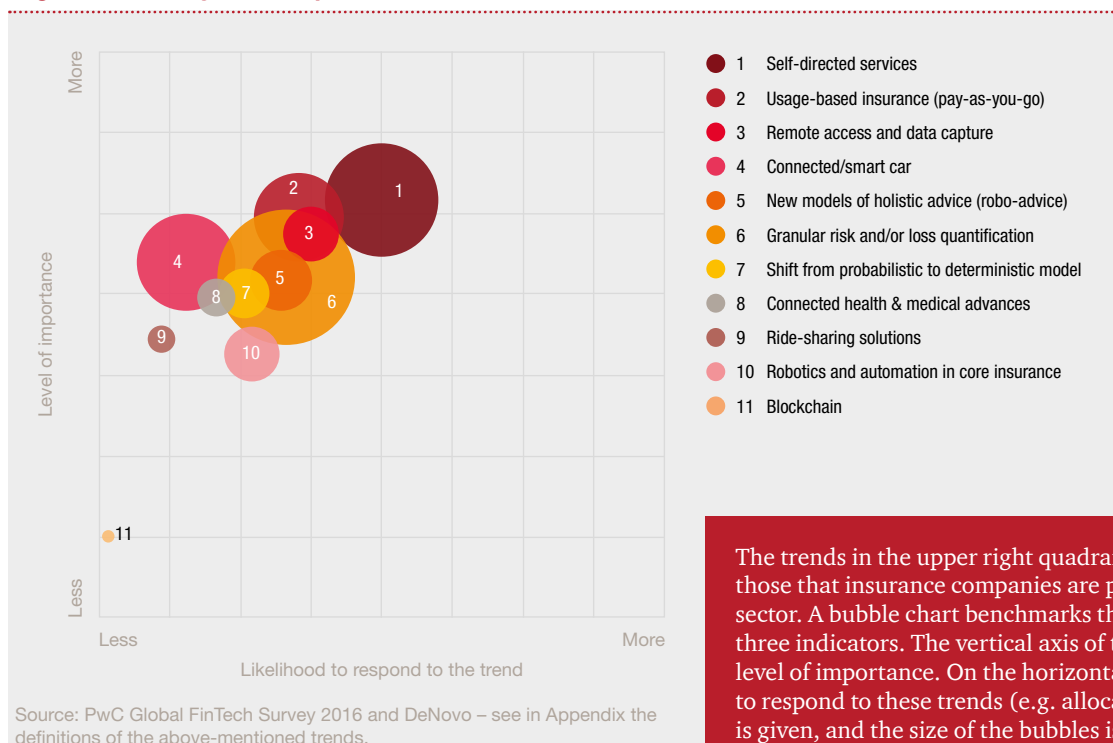
While insurers recognise the importance of most InsurTech-related trends, they focus on commonly adopted ones and are still less responsive to other emerging waves of innovation.⁵

Asked about the most important trends shaping the industry in the next five years and their likelihood to respond to them, insurers named self-directed services as the crucial one. It is also the one the market is by far most likely to respond to (figure 7).

As in other industry segments, insurance companies are investing in the design and implementation of more self-directed services for both customer acquisition and customer servicing.

This allows them to improve their operational efficiency while enabling online/mobile channels demanded by emerging segments such as millennials. In some cases, customer-centric designs create compelling user experiences (e.g. quotes obtained by sending a quick picture of the driving licence and the car vehicle identification number (VIN)), and where new solutions bring the opportunity to mobilise core processes in a matter of hours (e.g. provide access to services by using “robots” to create a mobile layer on top of legacy systems) or augment current key processes, e.g. first notice of loss (FNOL) notification, which includes differentiated mobile experiences.

Figure 7: Industry trend importance versus likelihood to address them



The trends in the upper right quadrant of the chart reflect those that insurance companies are prioritising in their sector. A bubble chart benchmarks the trends according to three indicators. The vertical axis of the graph displays the level of importance. On the horizontal axis, the likelihood to respond to these trends (e.g. allocate resources, invest) is given, and the size of the bubbles is proportional to the number of related FinTech companies associated with the trend.

⁵ An in-depth analysis of InsurTech opportunities can be found in PwC, *Top Issues. Insurance. An annual report*, vol. 8, 2016.

“The impact of an increased use of IoT devices is palpable for the ancillary industries in terms of fewer accidents/incidents in auto, home and commercial insurance.”

Head of IT at a large insurance company in Canada

Changing customer expectations and the need to build trusted relationships are forcing incumbents to seek value propositions where user experience, transaction efficiency and transparency are key elements. As self-directed solutions emerge among competitors, the ability to differentiate will be a challenge.

Usage-based insurance (UBI) models, which are emerging in response to customer demands for personalised insurance solutions, are a runner-up in terms of trend importance.

Industry players deem leveraging new sources of information important and are likely to explore opportunities around UBI and remote access. Current trends show an increasing interest in finding new underwriting approaches based on the generation of deep risk insights. In this respect, usage-based models – rated the second most important trend by survey participants – are becoming more relevant even as initial challenges, such as data privacy, are being overcome. Initially, incumbents viewed UBI as an opportunity to underwrite risk in a more granular way by using new driving/behavioural variables, but new players see UBI as an opportunity to meet new customer needs (e.g. low mileage or sporadic drivers).

Leveraging new data sources to obtain a more granular view of the risk will not only offer a key competitive advantage in a market where risk selection and pricing strategies could be augmented, but will also allow incumbents to explore unpenetrated segments. In this line, new players that have generated deep risk insights are also expected to enter these unpenetrated segments of the market; for example, life insurance for individuals with specific diseases.

Remote access and data capture was ranked the third most important in the insurance landscape.

Deep risk (and loss) insights can be generated from new data sources that could be accessed remotely and in real-time if needed. This ability to capture huge amounts of data must be coupled with the ability to analyse it to generate the required insights. The trend also includes the impact of IoT; for example, (1) drones offer the ability to access remote areas and assess loss by running advanced image analytics, and (2) integrated IoT platforms solutions include various types of sensors, such as telematics, wearables and those found in industrial sites, connected homes or any other facilities/equipment.

The ability to collect and analyse huge amounts of data will allow insurers to shift from protection models (reactive) to more sophisticated prevention models by developing a more granular view of the risk (proactive), thus enabling personalisation. The telematics-based solution that permits pay-as-you-drive offerings is one of the first models to emerge and is gaining momentum; new approaches are also emerging in the life insurance market where the use of wearables to monitor the healthiness of lifestyles could bring rewards and/or premium discounts among other benefits.

More innovation ahead

Only by starting to act today and embracing the challenges holistically will the industry be ready for tomorrow's game-changing trends. Due to the speed of social and technology developments, non-insurance specific trends, such as shared economies, self-driving cars, robotics and medical advances, among others, have the potential to disrupt the market earlier than expected. Even if it is not seen as a short-term need, the potential impact and depth

of implications force insurers to start exploring opportunities from now and position themselves as front-runners of these new waves of disruption:

1. Insurers may need to become more familiar with the implications of innovations of shared economies and smart cars and understand how they can respond to them.

Interestingly, even though responses indicated that smart cars are likely to gain momentum in the coming five years, relatively few insurers declare planning to respond to it. Only by becoming more familiar with this innovation will they be able to decide how to best address this trend.

In our earlier work on the future of auto insurance⁶, we outlined four possible risk scenarios, i.e. risk shifting, risk sharing, risk slicing, and risk reduction. While risk shifting and sharing are increasingly common, we also see risk slicing becoming more prevalent in the near future, particularly in the following ways:

- **Car-sharing** – according to recent estimates⁷, car-sharing memberships will reach 26 million by 2020. PwC expects the sector's revenue CAGR to grow by 23% over the period between 2013 and 2025.⁸ An increasing number of low-frequency drivers is likely to mean at least some reduction in individual premiums. However, this scenario does not necessarily represent only lost premiums. Most of the people who choose not to own cars will need to rent them at least occasionally; accordingly, car-sharing can expand the market for alternative buyers of insurance.
- **Self-driving mode** – in the next five to ten years we also are likely to see more cars with a self-assisted/driving mode: drivers will be shifting between hands-on and hands-off driving. This will result in different risk profiles for a single trip and also different liabilities. This type of risk slicing offers a number of interesting pricing options for auto insurers. Similar to usage-based or mileage-based insurance that telematics-driven auto insurers offer, we could see insurance premiums priced differently based on the mode of driving.

⁶ More details in "Potential impacts of automated driver assistance systems (ADAS) and autonomous car technologies on the insurance industry" paper in PwC, *Top Issues. Insurance. An annual report*, vol. 7, 2015.

⁷ Berg Insights, *The Carsharing Telematics Market*, 2015.

⁸ PwC, *The sharing economy – sizing the revenue opportunity*, 2014.



- **Risk reduction scenario** – and potentially even its elimination – has been gaining increasing acceptance. The first accident of a Google autonomous vehicle in self-driving mode in February 2016 occurred after 1.45 million vehicle miles traveled (VMT)⁹, which is approximately ~0.7 accidents per million VMT, significantly lower than the US average of ~2.0 per million VMT¹⁰. As autonomous driving and ADAS are just beginning to be implemented, technology and acceptance will only improve.

Driverless or autonomous cars equipped with the latest awareness technologies could completely change the industry as we know it and insurers have the opportunity to start adapting today to new needs of insurance solutions tailored for tomorrow.¹¹

2. Robotics, initially leveraged for advice, will lead to additional opportunities in core insurance operations.

Robo-advice based on AI leverages different approaches to support existing advisors and/or to bring direct-to-consumer solutions. Early robo-advisors have typically offered a portfolio selection and execution engine for self-directed customers. The next stage in robo-advisor evolution is offering better intelligence on customer needs and goal-based planning for both protection and financial products. Advanced analytics to simulate future scenarios will help customers and advisors to align financial goals and portfolios.

In general, AI's initial impact primarily relates to improving efficiencies and automating existing customer-facing, underwriting and claims processes. Over time, its impact will be more profound; it will identify, assess, and underwrite emerging

risks and identify new revenue sources, possibly in the following ways:

- **Improving efficiencies** – AI is already improving efficiencies in customer interaction and conversion ratios, reducing quote-to-bind and FNOL-to-claim resolution times, and increasing new product speed-to-market. These efficiencies are the result of AI techniques speeding up decision-making (e.g. automating underwriting, auto-adjudicating claims, automating financial advice, etc.).
- **Improving effectiveness** – because of the increasing sophistication of its decision-making capabilities, AI soon will improve target prospects in order to convert them to customers, refine risk assessment and risk-based pricing, enhance claims adjustment, and more. Over time, as AI systems learn from their interactions with the environment and advisors, they are likely to become more effective than humans. Advisors, underwriters, call center representatives, and claims adjusters will likely be at risk.
- **Improving risk selection & assessment** – AI's most profound impact could well result from its ability to identify trends and emerging risks, and assess risks for individuals, corporations, and lines of business. Its ability to help insurers develop new sources of revenue from risk and non-risk based information will also be significant.

As described, AI in all its forms is gradually bringing new opportunity to the insurance core processes. It's about sophistication and streamlined processes, and also a needed way to bridge the experience gap that may exist between new generations and 30+ years of underwriter's and adjusters' experience.¹²

⁹ Google, *Self-Driving Car Project Monthly Report*, February 2016.

¹⁰ National Highway Traffic Safety Administration, *Quick Facts 2014*, March 2016.

¹¹ For a detailed reading on the topic please check PwC's *The Insurance Industry in 2015* report, vol. 7, 2015.

¹² For a detailed reading on the topic please check PwC's *AI in insurance: hype or reality?* paper, March 2016.

3. Connected health combined with other InsurTech trends will help revitalise life insurance.

Our *Future of Insurance*¹³ thought leadership publication did anticipate a few years ago that sensors will change our ability to predict, prevent and mitigate risk. For life and health insurers, sensor technology is helping to monitor policyholders' health. Devices would alert them to any early signs of illness so they can see a doctor in good time. They could also help to promote safer choices and support verification in areas such as healthy eating and alcohol consumption. Business would benefit from reduced liabilities and could offer lower premiums in return.

Today, connected health and P4 Medicine (Predictive, Preventive, Personalised and Participatory) is a reality and, in addition to the sensors, different players work on developing end-to-end value propositions that will help life insurers to generate deeper risk insights and will bring the opportunity to explore new value propositions, to meet most relevant segments expectations from sophisticated lifestyle based insurance to specific – and affordable – solutions for un(der)served segments with chronic diseases.

In addition, using new sources of data will allow insurers to explore new approaches for life underwriting. For instance, health data, transaction data, activity data, etc. could be leveraged to score risk in a more granular way and also underwrite without the need of physical testing.

In this context, more and more individuals can have access to their genome. Gene sequencing can identify risks before they manifest themselves as problems and has the potential to completely disrupt life underwriting by placing a certain responsibility on the company to help customers manage genetic risks (while being careful about actually mandating lifestyle choices). Nevertheless, on the whole, managing genetic risks in advance could benefit both the end-consumer and the insurer because, if they work together, they could better manage or even avoid long-term health problems and associated expenses.

4. There is still a clear under-exploration by insurers of the blockchain technology, but existing PoCs (proofs-of-concept) and emerging start-ups are already bringing relevant use cases.

Insurers understand blockchain the least from the whole financial sector, with almost a third declaring they are not familiar with the technology at all. However, several areas of opportunity for blockchain across the insurance value chain have already emerged and insurers should explore them to understand blockchain's potential implications. Such an approach will enable incumbents to follow start-ups who are already delivering some minimal viable products; some insurers may also already be developing relevant proofs of concept.

Our PwC research has already laid out different use cases to be explored. In particular:

- Shared economies and on-demand economies
- Auto-settlement claims

- Frictionless capital flows across traditional ecosystem players (agents, brokers, service providers, etc.)
- Streamlined reinsurance and retrocessional transactions
- Liquidity optimisation (capital requirement-related)

Insurers should get familiar with these new concepts and specifically focus on blockchains (public and private ledgers), smart contracts (computer programs to enforce terms of contracts) and DAC (Distributed Autonomous Corporation), among others, and leverage their industry knowledge to assess the potential of these emerging use cases. Blockchain has the power to transform insurance processes by bringing new approaches that rely on decentralised systems and trusted transactions; it may also be the solution to face emerging challenges from new insurance models, such as P2P and on-demand economies.

A few start-ups are already using blockchain technology for P2P and on-demand insurance – in some cases even coupled with IoT solutions to enable specific services. In this context, micro-smart contracts will play an important role to activate on-request coverages in a trusted and streamlined way, and may lead to the design of new insurance contracts.

Also, as PwC has already anticipated, the (re)insurance industry is now concentrating on improving operational efficiency and security. Blockchain, smart contracts, and related innovations can significantly change how companies maintain the privacy and security of non-public information.

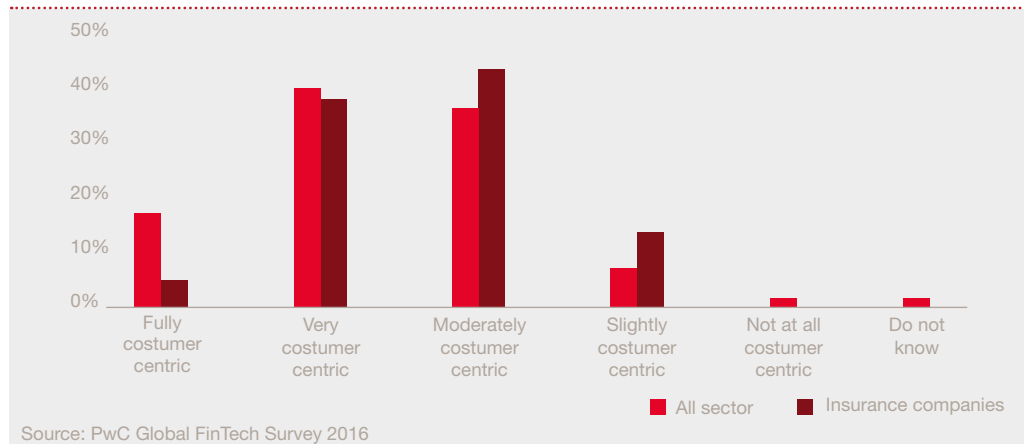
¹³ PwC, *Life insurance 2020: competing for a future*, 2012.

Closing the digital gap around customers

Even though 74% of insurers see ongoing sector-wide innovations and can identify the hot trends, the majority are not yet considering new forms of improvements to address disruption. Executives choose to take a more traditional path and focus on short-term initiatives.

In the new FinTech landscape, insurers should leverage their trusted relationships with customers and their extensive access to client data. The new norm will involve turning away from a linear product push approach to a customer-centric model. Many of the current innovation investments are aimed at closing existing gaps around customer centricity and digital channels, as insurers still have decent room for improvement (figure 8).

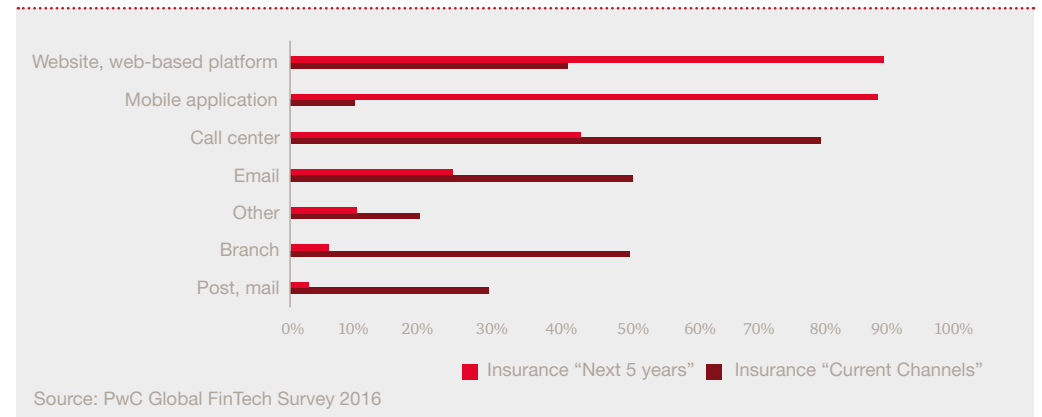
Figure 8: How would you rate your company on delivering true customer centricity?¹⁴



¹⁴ Companies delivering true customer centricity have re-oriented their entire operating model around the customer, increasing customer satisfaction and their own profitability in the process.

Insurance is the most call-centre reliant of the whole financial sector, with 78% of clients contacting the companies by phone. But even though industry players expect significant changes in client habits (figure 9) – they are still rather reluctant to establish strong relationships with FinTechs (see Section 6: Bridging the FinTech gap). In adapting their modus operandi and their action plans, insurers lag way behind the banking sector which is much more active in addressing FinTech.

Figure 9: What is currently the most popular channel of your clients to interact with your company? From which of the following channels do you expect the largest growth in usage over the next five years?



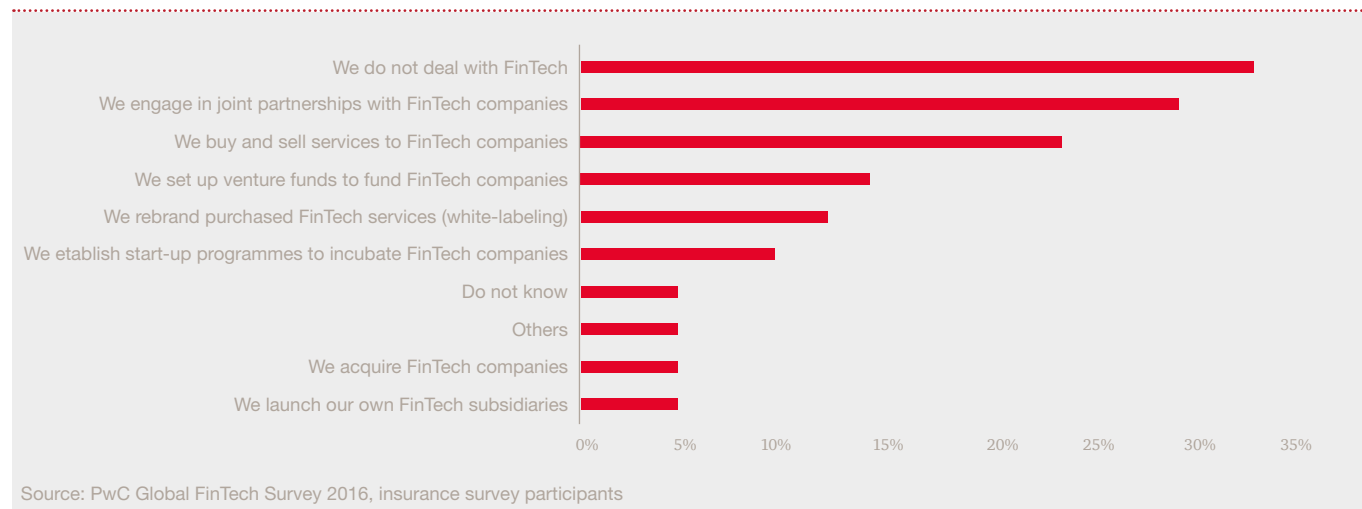
InsurTech mindset in the making

So far, 68% of insurance industry players are dealing with FinTech and have taken concrete steps to address the upcoming challenges and/or embrace opportunities. However, only the most innovative ones have FinTech at heart and explore more active ways to participate in the ecosystem, such as venture funds and incubators.

While 43% of insurers claim that FinTech lies at the heart of their corporate strategies, this does not necessarily translate into action: only 28% explore partnerships with FinTech companies and less than 14% have a more active participation in ventures and/or incubator programs. Still, 38% of insurers don't see the need to have FinTech as a key element of their strategy and, as a result, 32% do not deal with it at all, potentially putting their business at risk by not even exploring the opportunity space (figure 10).

Even though most of the leading insurers may be already participating in the InsurTech ecosystem, the remaining large group of players still has the opportunity to define or refine the appropriate measures for exploring, designing, embedding, and fostering innovation within their organisations. The sooner the strategy is redefined to focus on InsurTech, the greater the chance an insurer has to seize the FinTech-related opportunities.

Figure 10: How are you currently dealing with FinTech companies?



The percentage of insurers who launched their own InsurTech subsidiary or acquired a FinTech company is the lowest in the financial industry (5% of respondents to each). Insurers also lag behind banks and fund transfer & payment institutions in establishing partnerships with FinTechs (28% versus 42% and 35% respectively), as well as buying services from/selling services to FinTech companies (23% versus 25% and 26% respectively).

On the upside, however, is a gradually growing awareness among insurers of the need to address changing market demands. Based on our insight, insurers are increasingly active in taking on a strategic approach and embracing InsurTech. In fact, a significant part of the industry is getting up to speed. Those who address the ongoing disruption in an agile and strategic way will gain customers' trust and, hence, win the market.

Bridging the FinTech gap

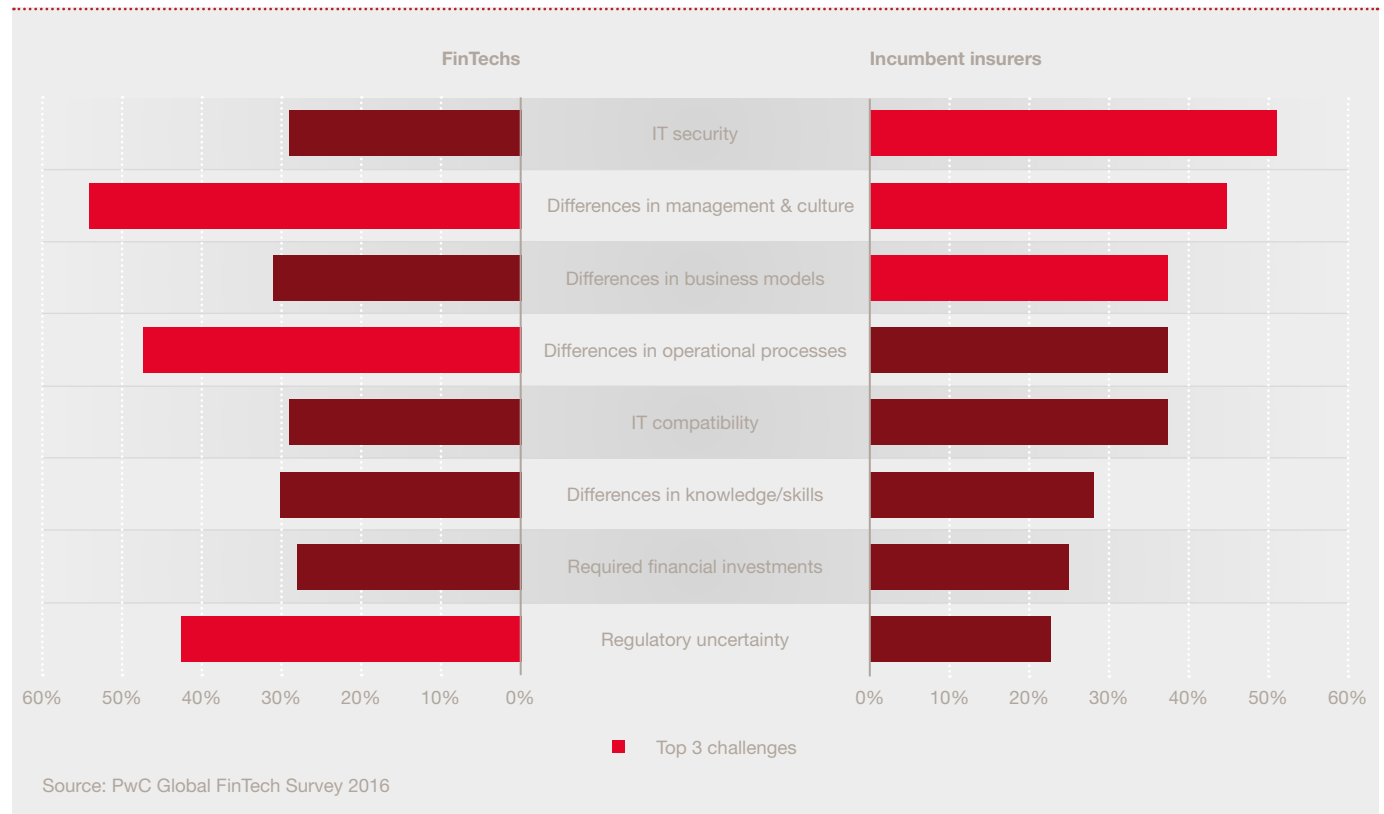
The difference in management and culture is one of the major impediments when insurers deal with FinTechs. Regulation and IT security are also part of the general resistance. Moving forward, both parties need to work together and bridge gaps to overcome misalignments.

Insurers and FinTechs do not yet have well-established business relations, which could be the cause of tension between the two sectors. Both sides enumerate a long list of challenges faced when dealing with one another. At the top of the list from the insurers' perspective is IT security (51% of responses), followed by differences in management and culture (45%). The latter is seen as the main obstacle for FinTechs when dealing with incumbents (54%). The second most often mentioned hurdle is the uncertainty in operational processes (47%), followed by regulatory uncertainty of the financial sector (43%) (figure 11).

Instead of being perceived as an issue, differences should actually be seen as opportunities. FinTechs could complement incumbents and *vice versa*. For example, FinTechs bring an innovative mindset, while incumbents tend to take a long-term perspective. A less disruptive approach, such as this, could prove to be helpful to ground scale models.

Despite existing challenges, insurers have already understood that InsurTech mindset and talent are key to drive breakthrough innovation, hence, they are looking for different ways to collaborate. On the other hand, FinTechs will need to leverage incumbents' expertise around risk and regulation in order to solve more complex problems in the industry and scale new solutions.

Figure 11: Challenges faced by insurance companies dealing with FinTech companies and vice versa



The road ahead

The insurance sector has not yet worked out a consistent approach to disruption. Now is the time for executives to think forward, put innovation at the heart of their strategies and define to what extent they want to participate in the InsurTech ecosystem.

In a glut of changing trends, insurance companies must prepare to embrace the revolution and start seriously addressing the disruption caused by the rise of InsurTech. Consumer habits are evolving rapidly, and more and more clients expect insurance offerings to cater to their specific needs. InsurTech can be the facilitator, yet if not incorporated into core insurance strategies, it might emerge as a serious stand-alone competitor, putting at least some of insurers' business at risk.

Inconsistencies in navigating the changing landscape suggest insurers have the opportunity to define their path forward and state how they want to participate in the InsurTech space as well as in what ways they plan to drive related innovation. FinTech may be complicated and unfamiliar, yet if approached strategically, it could help opportunity-seeking incumbents reinforce their leading positions, and benefit those lower on the ladder by helping them move forward in the race for market share.

To embrace InsurTech, incumbents should take concrete steps:

- **Exploration** – savvy incumbents are actively monitoring new trends and innovations. Some of them are even establishing a presence in innovation hotspots (e.g. Silicon Valley) where they could learn about the latest developments directly and in real time.
- **Strategic partnerships** – some incumbents partner with start-ups and build pilot solutions to test in the market. Ensuring a design environment (“sandbox”) will help boost creativity and also provide tools and resources for designing potential prototype solutions.
- **InsurTech involvement** – incumbents' involvement in start-up programs such as incubators, mechanisms to fund companies, and strategic acquisitions may result in insurers' readiness to address specific problems, especially those that otherwise might not be tackled in the short term.
- **New product development** – involvement in InsurTech could help incumbents discover emerging coverage needs and risks that require new insurance products and services. Accordingly, they can refine – and even redefine – product portfolio strategy.

These four steps should be entwined with an adoption of a pre-defined Enterprise Innovation Model (EIM). Currently, most of the innovation is happening at a business unit level, and mainly focuses on incremental innovation. However, in order to interact with the FinTech ecosystem, incumbents have to define new corporate structures and an organisational culture of innovation.

Even though InsurTech is currently at an embryonic level, new innovative business models within the insurance industry have emerged, such as, microinsurance and pay-as-you-go insurance. The unique value proposition of FinTech capabilities within the insurance industry lies in the shift from complexity and long-termism to real-time, easy-to-use, configurable, customised and cost-friendly products and services, all tied within the mobile and real-time technological era. Regardless of the strategic approach adopted, insurers are not ignoring FinTech.

There is a need for insurers' innovation models to take advantage of market opportunities from ideation through execution. An effective enterprise innovation model (EIM) will formalise the capabilities required to connect with the ecosystem, create meaningful relationships with potential partners, and transform ideas into scalable solutions. In this context, an innovation portfolio under management is aligned with the corporate strategy and balanced to meet incremental innovation needs while exploring other forms of more radical innovation to seize emerging opportunities. For this, the EIM will promote a diverse approach to cover all needs, and will leverage operating options such as innovation hubs, incubators and capital ventures to tap into new opportunities.

*These innovation options and EIM will be explored in more depth in our next report: **Innovating to grow: a new world of opportunity for insurers**, which will be released in Summer 2016.*

Appendix

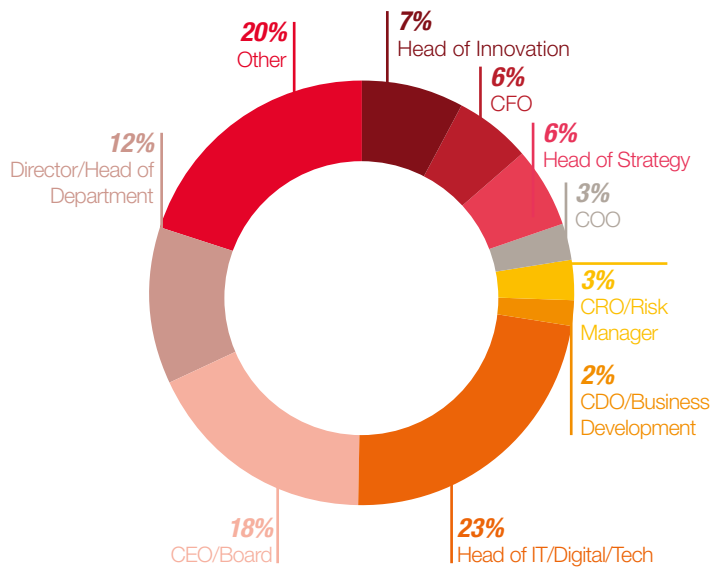
Participant profiles

The 2016 PwC Global FinTech Survey gathered the view of 544 respondents from 46 countries, principally Chief Executive Officers (CEOs), Heads of Innovation, Chief Information Officers (CIOs) and top management involved in digital and technological transformation, distributed among five regions.

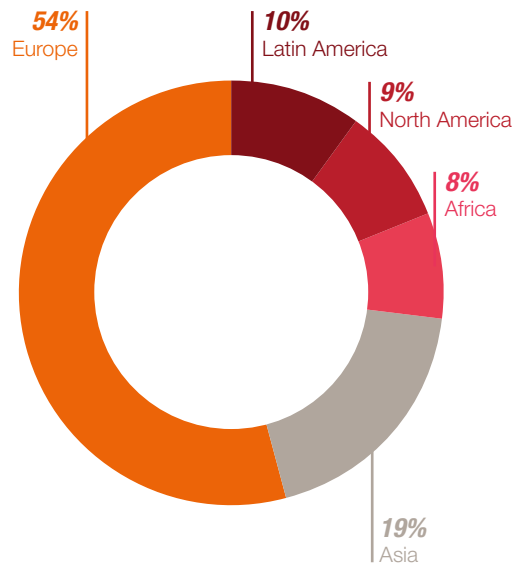
The insurance-focused cut is based on the responses of 79 respondents from insurance companies around the globe.

Breakdown of insurance survey participants

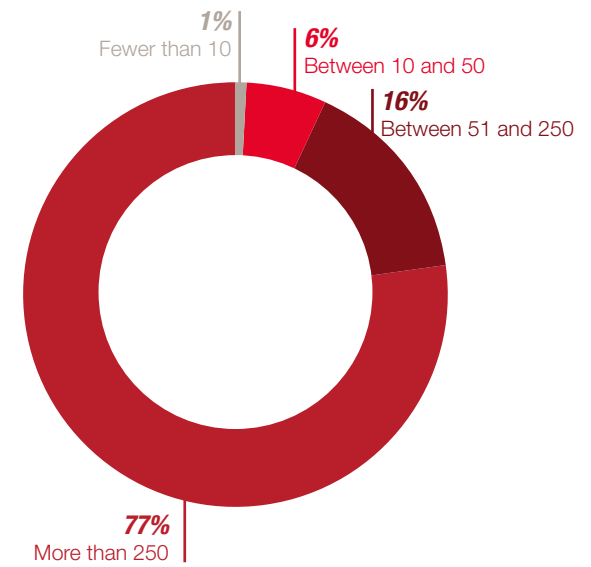
by type of respondent



by geographical location



by company headcount



DeNovo

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What is DeNovo?

DeNovo represents the next generation of strategy consulting – a new platform powered by Strategy&, PwC’s strategy consulting team, that is focused on FinTech. The rapid emergence of disruptive technologies and new business models requires a modern way of delivering strategic advice when and where you need it. Whether you are in the board room or on a phone call with your CEO, DeNovo provides you with answers in real time. Relevant content and insights are delivered to you via web, mobile and direct interaction with our team of innovation strategists.

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Summary of the InsurTech-related trends

DeNovo’s Team is tracking emerging trends in FinTech to explain which start-ups, technologies, trends, and new market entrants are relevant to the insurance industry and more importantly, why. The trends highlighted below are a snapshot in time of the most relevant ones for the sector. For an updated view, please subscribe to the DeNovo platform.

1. Ride-sharing solutions	Rise of new ride and car-sharing business models, or similar sharing economies, that demand new insurance solutions regarding liability and personal injury.
2. Usage-based insurance (pay-as-you-go)	Personalisation of insurance through usage-and behaviour-based models in auto coverage leverages new ways to capture driving data.
3. New models of holistic advice (robo-advice)	New models of holistic advice on insurance/investment needs assisted by automated advisors that leverage advanced analytics and AI.
4. Self-directed services	Use of self-service tools to reduce cost of serving customers and improve simplicity, transparency, and speed of fulfilment.
5. Connected health and medical advances	From wearables to genomics to enable P4 Medicine: Predictive, Preventive, Personalised and Participatory.
6. Connected/Smart Car	Solutions for connected cars and increasingly assisted/autonomous driving that impact auto claims frequency and severity.
7. Remote access and data capture	Use of non-traditional data capturing solutions including remote devices, to improve risk and loss assessments.
8. Shift from probabilistic to deterministic model	Real-time data capture and monitoring technology enabling insurers to shift from a probabilistic to a deterministic claims model.
9. Granular risk and/or loss quantification	Advancement in technology helping to quantify risk and/or loss at a granular level.
10. Robotics and automation in core insurance	Increased use of capabilities such as robotics and AI to automate core insurance functions.
11. Blockchain	Use of distributed and decentralised ledger technology in which transactions are recorded in order to improve payments, clearing and settlement, audit or data management of assets. There is also the possibility to create a so-called “smart contract” using blockchain technology. This is essentially a contract that is translated into a computer program and, as such, has the ability to be self-executing and self-maintaining.

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