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InsurTech: A golden opportunity for insurers to innovate



The insurance industry has remained much the same for more than 100 years, but over the past decade it has seen a number of exciting new innovations and new business models.

Three of the biggest drivers of disruption include:

- **Customer expectations** – The widespread adoption of new consumer technologies in all industries has created new needs for and expectations of insurance solution and interaction channels.
- **Pace of innovation** – So far, incremental innovation has helped insurers meet most new customer expectations. But, with the demands of the shared economy, usage-based models, internet-of-things (IoT), autonomous cars, and wearables, they have an opportunity to do more radical innovations and experiment with new business models. In this context, customers have a need for new insurance solutions, and established carriers (i.e., incumbents) have an opportunity to provide tailored products and services for different segments.

- **Startups** – With easy access to open source frameworks, scaled cloud computing and development On-Demand, technology barriers to entry have been lowered. New players that have the ability to innovate quickly are taking advantage of the opportunity to fill the gaps that incumbents have not.

As part of PwC's Future of Insurance initiative¹, we've interviewed numerous industry executives and have identified six key business opportunities (illustrated below) that incumbents need to take advantage of as they try to meet customer needs while improving core insurance functions.

¹ <http://www.pwc.com/gx/en/industries/financial-services/insurance/future-of-insurance.html>

The promise of InsurTech



Because FinTech offers substantial promise to take advantage of emerging opportunities, funding for startups is surging. Increased funding activity not only demonstrates venture capitalist investors' interest, but also indicates how incumbents may leverage FinTech to address their specific business challenges.

The insurance-specific branch of FinTech, InsurTech, is emerging as a game-changing opportunity for insurers to innovate, improve the relevance of their offerings, and grow. InsurTech, has seen funding in line with FinTech investment overall, and we expect investments to increase as new players and investors enter the space.²

Figure 1: DeNovo FinTech companies* - Total Funding

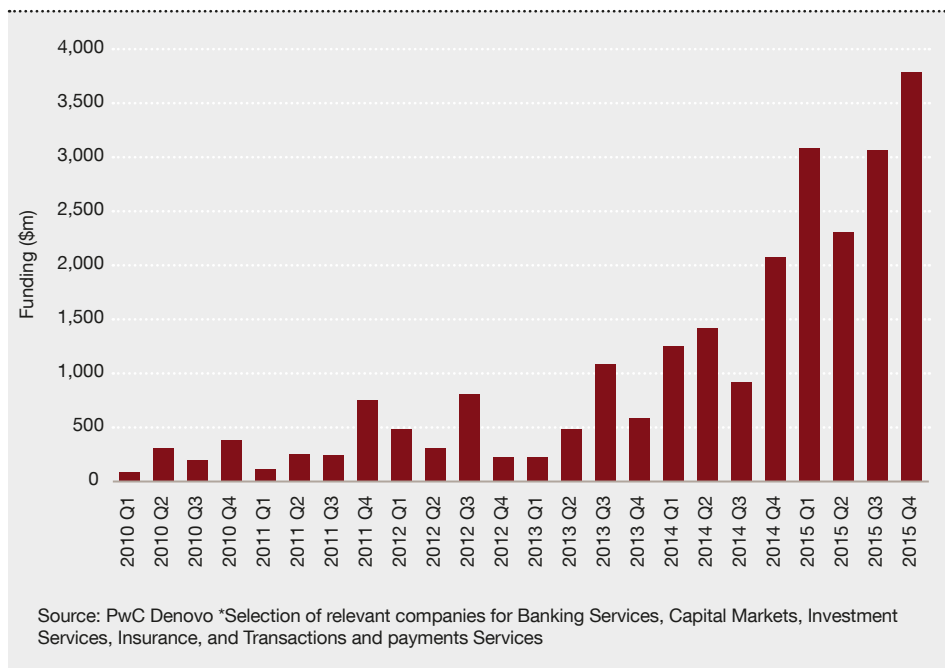


Figure 2: DeNovo InsurTech Companies* Funding

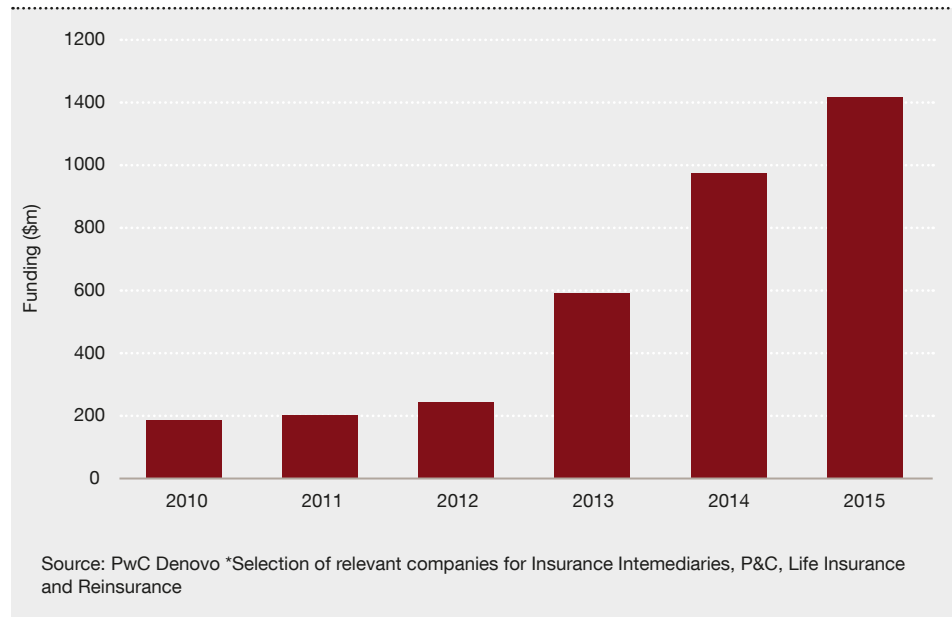


Figure 3: DeNovo Early Stage InsurTech Companies* activity

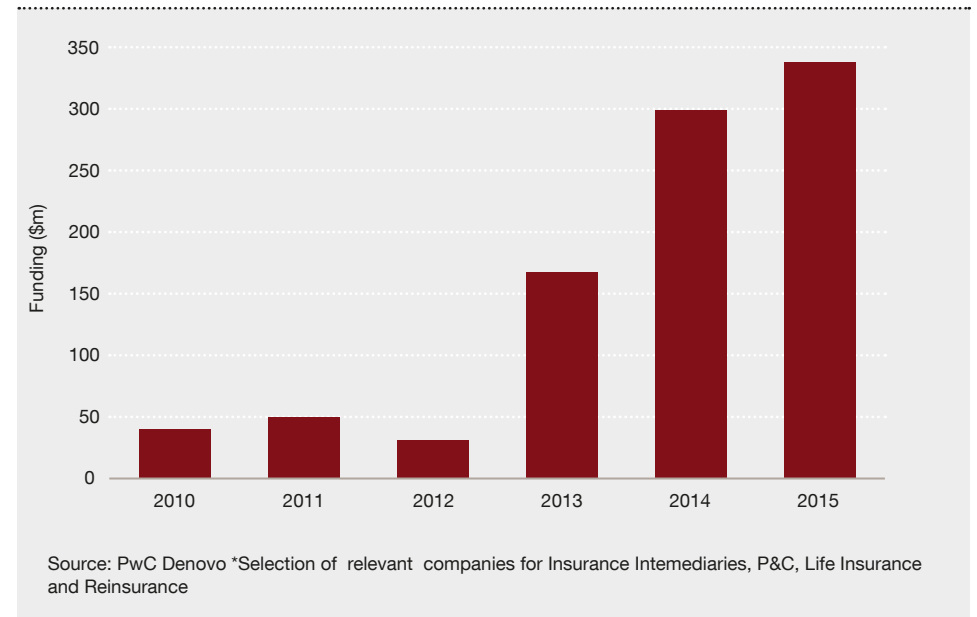
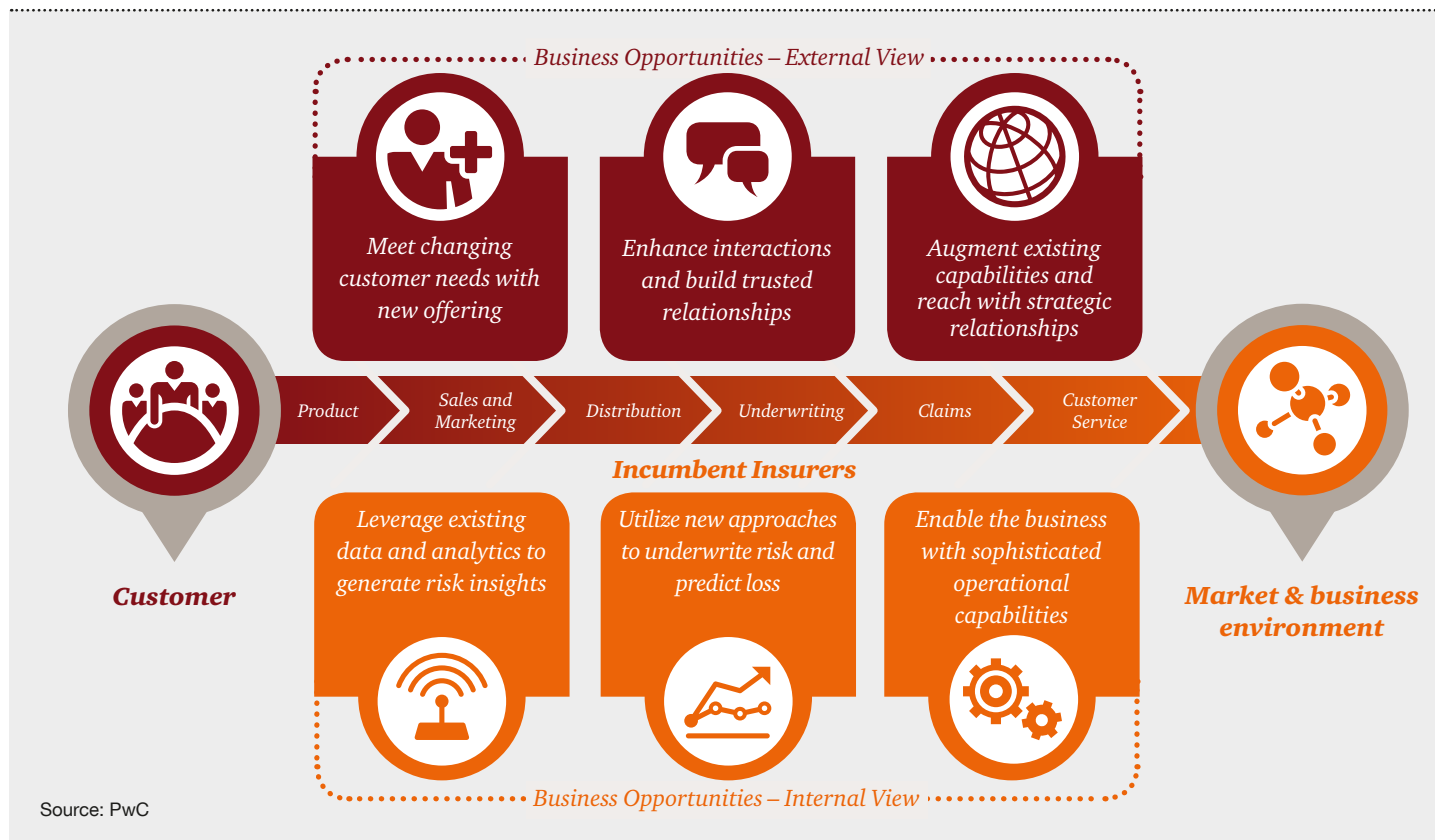


Figure 4: Business imperatives



Source: PwC

Incumbent insurers have been able to slide by with incremental improvements. New entrants are demonstrating that approach isn't enough anymore.



As Figures 2 and 3 show, activity around early-stage InsurTech companies also has generated considerable buzz. Moreover, experienced insurance executives have joined startups, including InsureOn and Lemonade, to help them develop new types of products and services, like small business aggregators and peer-to-peer insurance models. All of this indicates that investors and the industry are eager to get on board with early stage startups in order to meet the six areas of opportunity we illustrate above and describe in detail as follows.

1) Meet changing customer needs with new offerings

Customer now expect personalized insurance solutions. One size simply does not fit all anymore. Usage-based models are partially addressing these expectations, but the sharing economy also is challenging existing, more traditional insurance products. New players are able work from a clean slate and leverage a variety of available resources to fill market gaps. For example:

- Metromile, a startup, has developed a customer- (rather than risk-) centric value proposition for occasional drivers. It offers a low base rate and then charges a few cents per mile driven. Metromile also offers an app that provides personalized driving, navigation and diagnostic tips, and can even remind drivers where they parked. Furthermore, the company has entered into a partnership with Uber that allows drivers to switch from personal to Uber insurance.

- USAA has invested \$24M in Automatic Labs, a telematics platform that claims it will “connect your car to your life” and provides a full suite of integrated apps (including wearables).
- In the life sector, Sureify has developed a platform that allows insurers to underwrite life insurance based on lifestyle data inputs they obtain from wearables.
- In the peer-to-peer space, Lemonade claims to be the world’s first peer-to-peer carrier, but other companies like Guevara and InsPeer have been exploring variations of the same model. Bought by Many, a startup that uses social platforms in its go-to-market strategy, helps individuals join or even create affinity groups, as well as find insurance solutions for their specific needs across different product lines. Of note, leading Chinese insurer Ping An has partnered with Bought by Many to create personalized travel

insurance by leveraging social media data.

Some large insurers have decided to develop startups in-house. For example:

- MassMutual is using internal resources to build Haven, a new, stand-alone, direct-to-consumer business.

2) Enhance interaction and build trusted relationships

Established carriers have to manage increasing customer expectations and provide seamless service despite their large and complex organizations. In contrast, new market entrants are not burdened with large, entrenched bureaucracies and typically can more easily provide a seamless customer experience – often using not just new technology but new service concepts.

For example, self-directed robo-advisors are convenient, 24/7 advisors that provide ready access to information that can empower consumer decisions

about financial planning and investment management. And, investors have taken notice:

- Northwestern Mutual's acquired Learnvest, a leading robo-advisor with an estimated value of \$250+M.
- Other robo-advisors, such as FutureAdvisor, have been part of important deals, while others (including Betterment, Personal Capital and Wealthfront) have raised funds above \$100M.

Moreover, disintermediation and the emergence of new online channels is occurring in all lines of business:

- The Chicago-based startup InsureOn has created an aggregator that specializes in micro and small businesses. It taps into existing profit pools that personal and commercial carriers are trying to reach.

- In order to become a B2C player in the digital small business market, ACE Group has recently taken a 24 percent (\$57.5M) stake in Coverhound, which enables customers to directly compare coverage options and pricing from various carriers.

3) Augment existing capabilities and reach with strategic relationships

The insurance industry historically has included intermediaries, service providers and reinsurers. In most cases, the carrier has led the business relationship because of its retail market position and scale. However, companies increasingly are peers. Accordingly, joint ventures and partnerships are a good way to augment existing capabilities and establish symbiotic relationships. For example:

- BIMA Mobile has partnered with mobile telecoms companies to provide life insurance solutions to uninsured segments in less developed countries.

It offers simple life, personal accident, and hospitalization insurance products on a pay as you go (PAYG) basis for a set time period (usually just a few months). Policyholders can obtain a pre-paid card and activate and manage their policy from a mobile phone.

- AXA has acquired an eight percent stake in Africa Internet Group for EUR75M, opening new opportunities for the company in unpenetrated markets.

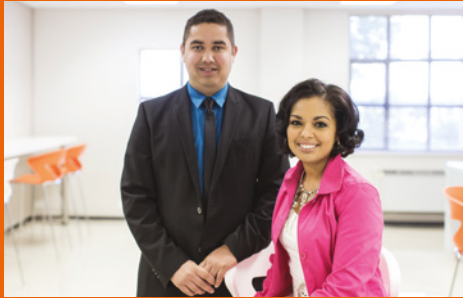
New B2B2C entrants also are helping forge mutually beneficial relationships:

- Zenefits was one of the first to create new channels to connect insurers, brokers, employers and employees.
- Flock, which features broker managed benefits where plans can be designed to cover a range of options from enrollment to life events, offers what it says are "absolutely free" HR and benefits solutions.

4) Leverage existing data and analytics to generate risk insights

Established insurers traditionally have had the advantage over prospective newcomers of being able to leverage many years of detailed risk data. However, data – and new types of it – now can be captured in real-time and is available from external sources. As a result, there are new market entrants who have the ability to generate meaningful risk insights in very specific areas.

- Several internet of things (IoT) companies, including Mnuvo, provide analytics that generate insights from sensor-based data and additional external data sources like telematics and real-time weather observation. The promise of the better risk assessment and management resulting from this model is likely to appeal to personal and commercial carriers.



- Facilitating this real-time data collection are drone startups, including Airphrame and Airware. Drones provide the ability to analyze risk with embedded sensors and image analytics. They also can operate in remote areas where it has traditionally been difficult for humans to tread, thereby saving time and increasing efficiency. In fact, American Family's venture capital arm is investing in drone technology in order to explore new approaches to access and capture risk data.
- In the life space, P4 Medicine (Predictive Preventive, Personalized and Participatory) offers insurers better insights that they can apply to life and disability underwriting. Lumiata is offering the potential for better predictive health capabilities, while Neurosky is developing next generation wearable sensors that can detect ECGs, stress levels, and even brain waves.

5) Utilize new approaches to underwriting risk and predicting loss

Protection-based models are shifting to more sophisticated preventive models that facilitate loss mitigation in all insurance segments. Sensors and related data analytics can identify unsafe driving, industrial equipment failure, impending health problems, and more. More deterministic models like the ones that now exist for crop insurance, are starting to emerge and new entrants are offering both risk prevention (not just loss protection) and a more service-oriented delivery model. For example:

- The South Africa-based company Discovery has a partnership with Human Longevity Inc. They are teaming to offer whole Exome, whole genome and cancer genome sequencing, to its clients in South Africa and the UK. Gene sequencing can identify risks before they manifest themselves as problems, but also raises

ethical questions. It has the potential to completely disrupt life underwriting, and places certain responsibility on the company to help customers manage genetic risks (while being careful about actually mandating lifestyle choices). But, on the whole, managing genetic risks in advance can benefit both the end-consumer and the insurer because, if they work together, they can better manage or even avoid long-term health problems and associated expenses.

- On the automotive side, Nauto, a San Francisco-based company, offers a system that provides visual context and telematics with actionable information about driving behavior, including distracted driving. The company claims that its system can help insurers design new pricing strategies and pinpoint areas of premium leakage that they otherwise may not notice.

6) Enable the business with sophisticated operational capabilities

Effective core systems enable insurers to operate at a large scale. Because of cost, establishing these systems has traditionally been a barrier to market entry. However, access to cloud-based core solutions has facilitated scalability and flexibility. Developments like this, combined with new developments like robotics and automation, have provided new market entrants compelling market differentiators.

As just one example, underwriting automation is now available in life and commercial lines (notably for small and medium businesses). Some carriers have adopted simplified processes and “Jet” underwriting, in which they leverage external data sources to expedite approval. This has resulted from the availability of risk insights that support new underwriting approaches.

Several companies are offering to optimize and augment processes via improved collaboration, artificial intelligence, and more. For instance:

- OutsideIQ offers artificial intelligence solutions via an as-a-service underwriting and claims workbench that uses big data to address complex risk-based problems.
- In addition, automating claims can improve efficiency and also effectively assess losses. Tyche offers a solution that uses analytics to help clients estimate the value of legal claims.



Implications: Think like a disruptor, act like a startup

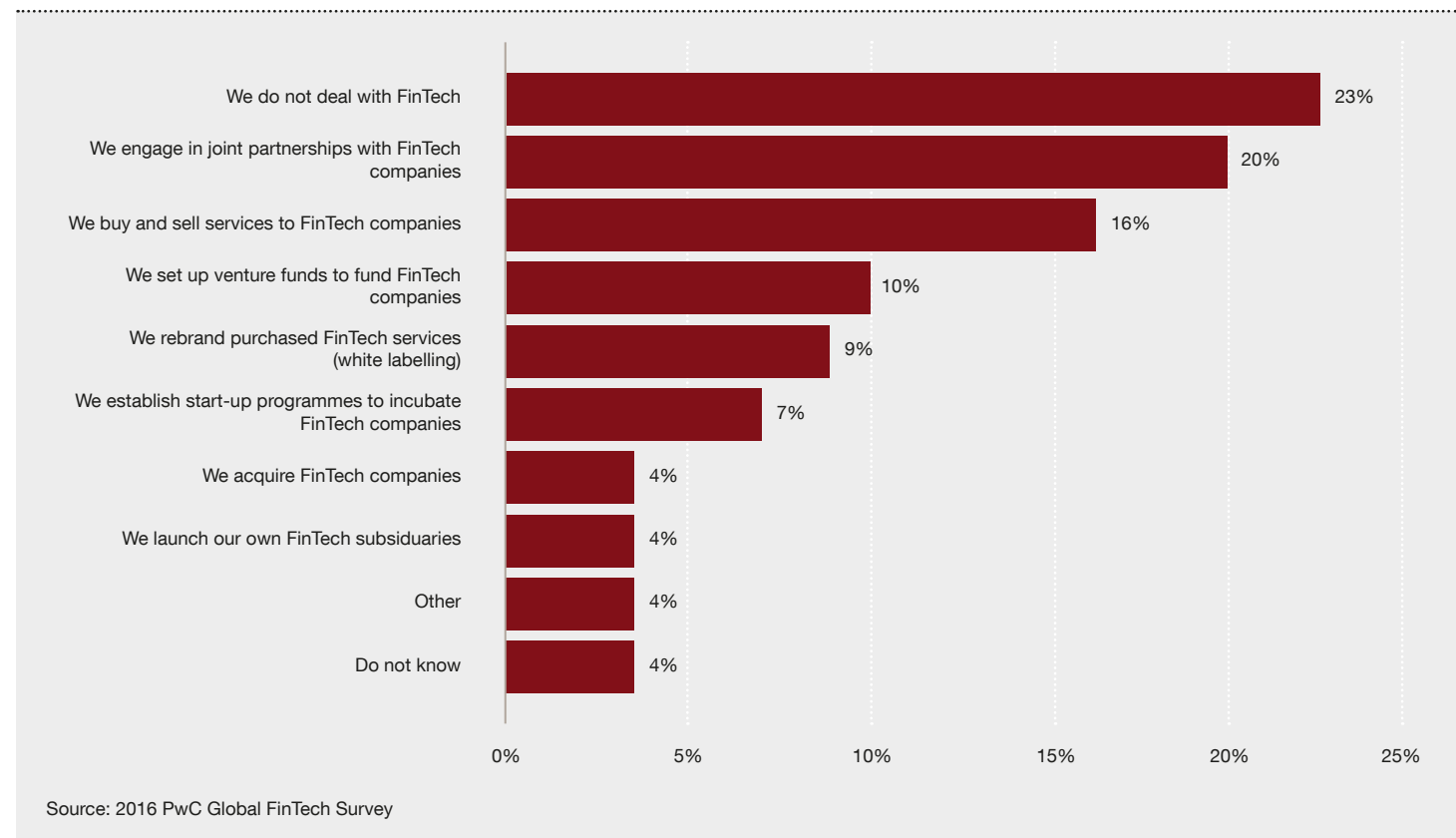
In a time when societal changes, technological developments, and empowered customers are changing the nature of the insurance business, established insurers need to determine how InsurTech fits in their strategies. The table to the right shows the various approaches insurers are taking.

More specifically, insurers are:

- **Exploring and discovering** – 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 can learn about the latest developments directly and in real time.

Action Item: Plan an InsurTech immersion session for senior management. This should be an effective eye opener and facilitate

Figure 5: How do insurers deal with FinTech?





sharing of relevant insights on desired InsurTech solutions. Subsequently, FinTech analyst platforms can keep management up-to-date on the latest developments and market entrants.

- **Partnering to develop solutions** – Exploration should lead to the development of potential use cases that address specific business challenges. Incumbents can partner with startups to build pilots to test in the market.

Action Item: Select a few key business challenges, identify possible solutions, and find potential partners. A design environment (“sandbox”) will help boost creativity and also provide tools and resources for designing and fast prototyping potential solutions. This approach also can help establish the baseline and approach to building future InsurTech solutions.

- **Contributing to InsurTech’s growth and development** – Venture capital and incubator programs play an important role strategically directing key innovation efforts. Established insurers can play an active role by clearly identifying areas of need and opportunity and encouraging/working with startups to develop appropriate solutions.

Action Item: Define a strategy to direct startups’ focus on specific problems, especially those that otherwise might not be addressed in the short term. Incumbents should consider startup programs such as incubators, mechanisms to fund companies, and strategic acquisitions. (N.B.: It is vitally important to protect intellectual capital when imparting industry knowledge to startups.)

- **Developing new products and services** – Being active in InsurTech can 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. This will result in the design of new risk models tailored to underserved and emerging markets.

Action Item: Take a close look at emerging technologies and social trends that could be business opportunities in order to define product strategy, determine required capabilities, and develop a plan to build a portfolio and seize market opportunities.

FinTech has become a buzzword, but whichever way the FinTech/ InsurTech market itself goes, the reality underpinning it is not a passing fad. Insurers that are actively involved with InsurTech in any of the ways we describe above stand to gain whichever way the market moves. They can use their capital and understanding of customers and the market to both inspire and exploit innovative technologies and correspondingly grow their business.

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