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InsurTech Rising: A Profile of the InsurTech Landscape

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RESEARCH

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EXECUTIVE SUMMARY

The insurance industry now includes a number of technology-driven (InsurTech) startups that are seeking to deliver more customer-centric insurance products and services in more efficient ways. Approximately 1,500 InsurTech startups are currently operating around the world. Additionally, more than \$9 billion in disclosed capital has been committed to over 700 InsurTech investments over the past five years.

To understand the changes taking place in InsurTech, the Milken Institute Center for Financial Markets undertook an in-depth quantitative and qualitative analysis of the InsurTech ecosystem, including profiling more than 100 InsurTech platforms operating around the world. This report is intended to be a resource for industry participants, policymakers, and regulators interested in understanding more about the tech-driven changes taking place in today's insurance sector.

We provide several takeaways about the past and present of InsurTech. The growth and proliferation of InsurTech firms began to accelerate in 2010, largely driven by an increase in venture capital funding. Compared to other parts of the FinTech space, such as alternative payment providers and digital lending platforms, the interaction between industry incumbents and new entrants in the development of InsurTech generally involves more cooperation and collaboration than direct competition and disruption. The InsurTech ecosystem is supported by several private-sector initiatives, like innovation hubs and accelerators, as well as public-sector regulatory sandboxes that are specific to InsurTech.

This report also explore issues and questions related to the future of InsurTech. For instance, will the efficiencies from InsurTech translate into more cost-effective insurance products and services for the end user? Will the customer-centric focus of InsurTech lead to more innovation and will it translate to a more inclusive marketplace that provides insurance products and services to customers not currently served? Will the recent entrance into InsurTech of large technology companies such as Amazon, Google, Alibaba, Tencent, and Paytm lead to more direct competition and disruption?

BACKGROUND

Over the past few years, the insurance industry has gradually emerged as an area of opportunity for entrepreneurs seeking to address the inefficiencies and lack of customer-centricity in the current insurance ecosystem. Technological advancements, coupled with the capture and analysis of vast quantities of data, have paved the way for tech-driven insurance platforms and technology providers to address significant challenges and shortcomings in the insurance industry.

Various studies have sought to explain why insurance technology is emerging as a powerful force and what the evolution of the insurance value chain will look like. Past studies, such as the Milken Institute's report on remittance-linked insurance products, have focused on insurance products and services themselves.¹ Few studies have undertaken an analysis to identify the emerging InsurTech platforms, track their progress since inception, and evaluate whether their efficiency gains translate to more affordable products and services that lead to greater financial inclusion.

In the landscape accompanying this paper, we profiled more than 100 InsurTech platforms.² The profiles include information related to the organizational structure of each platform, how they operate, their growth since inception, and other noteworthy information. Based on the landscape, the paper provides several takeaways in an effort to help inform both policymakers and regulators on the seismic shifts occurring in the global insurance ecosystem and the efforts to foster and support InsurTech.

Ultimately, it remains to be seen whether InsurTech truly is disruptive and capable of addressing issues related to inclusion and access. The InsurTech space continues to evolve, with a diverse landscape of tech-driven insurance platforms and technology solution providers that seek to address the numerous pain points associated with today's insurance industry.³

¹ Ziyi Huang, Aron Betru, and Jackson Mueller. "Leaving Transferred Money on the Table: Will Remittance-Linked Financial Products Add Value to Development Financing?" Milken Institute. March 6, 2017. <https://www.milkeninstitute.org/publications/view/849>.

² The author would like to thank Mike Piwowar, Aron Betru, and Dan Murphy of the Milken Institute Center for Financial Markets for providing feedback on the report. The author would also like to thank Nora Super of the Milken Institute Center for the Future of Aging, and members of the Milken Institute FinTech Advisory Committee. The author also thanks Robert Collins, CEO, Crossborder Insurance LLC; Mandal Subhajit, Head of Products, Symbo; Michael Byrne, Partner, Drinker Biddle & Reath LLP; Michael Halsband, Partner, Drinker Biddle & Reath LLP, for their feedback. Lastly, the author would like to thank representatives from 57 of the 104 firms profiled in the report who took the time to review the landscape and provide feedback.

³ Pain points include: legacy platforms; lack of a digital presence; plain vanilla products; locked-in policies; inefficient distribution channels; inability to effectively manage, analyze and leverage mass quantities of data to create or appropriately tailor new products and services; over-insurance; and lack of competition and/or choice.

METHODOLOGY

In 2016, the Milken Institute released a white paper (and accompanying landscape) covering the U.S. online, nonbank financing space.⁴ In that report, we identified and profiled more than 70 U.S.-based platforms that offer financing to consumers, small businesses, or both.

The methodology used in that report to derive the information necessary to segment the platform models and products is the same methodology that we have employed for the purposes of this report on InsurTech. That is, InsurTech platforms were initially identified from news articles, press releases, reports, and other publications (industry and academic).⁵ We obtained detailed profile information from each InsurTech website. The information contained in the landscape that is used to derive the key takeaways, explained further below, is relevant as of November 2018. Information on funding rounds and the firms and individuals involved in each round were pulled from press releases, blog posts, and various websites (including Crunchbase).

With the information gathered, we attempted to segment the 104 InsurTech platforms based not only on the products or services offered (as is so often the case in prior studies), but by the platform model itself. We segmented the various InsurTech firms according to the following platform models defined below:⁶

- **Full-stack Insurers:** Platforms that underwrite policies, assume the risk (or an insurer or reinsurer assumes or shares in the risk), and, in most cases, manage the process from beginning to end.
- **Agents:** Platforms that act on behalf of a carrier, essentially acting as an extension of an incumbent carrier. This platform

⁴ Jackson Mueller. "The U.S. Online, Non-Bank Finance Landscape." Milken Institute Center for Financial Markets, Washington, DC, June 2016. <https://www.milkeninstitute.org/publications/view/806>.

⁵ We obtained information from various news aggregation websites including PR Newswire, PRWeb, Business Wire, and Market Wired.

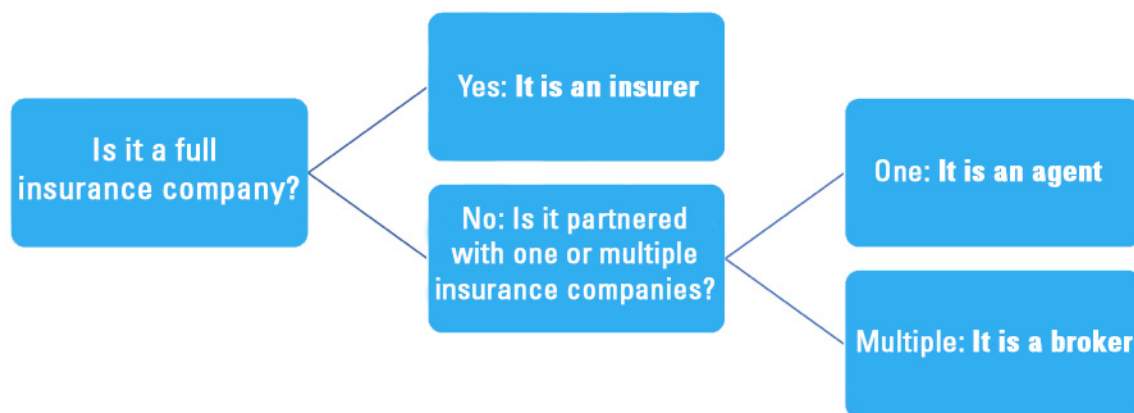
⁶ For the purposes of defining each InsurTech platform category, we closely followed the work of Daniel Treiber, Chief Financial Officer at Getsafe, in which he defines managing general agents vs. full-stack insurers. That work is available here: <https://blog.getsafe.eu/the-two-breeds-of-digital-insurance-3defaeb5c3a0>. We also added a broker category to the mix of InsurTech platforms. If we did not receive feedback from InsurTechs regarding classification, we used our "best guess" based on the information available to segment each InsurTech platform.

METHODOLOGY

• **Brokers:** Platforms that provide customers with a variety of policies offered by both incumbent carriers and insurgent InsurTech platforms. These platforms may or may not be paid commission based on the policies sold through their platform. The platform interface may require customers to scroll through various policies offered or automatically connect customers to a preferred policy through various algorithms employed on the back end and based on a user’s response to a select set of questions.

For the purposes of segmenting InsurTech platforms into the full-stack, agent, or broker models, we used the following series of questions (Figure 1) to determine where to place a particular InsurTech on the spectrum:

Figure 1: Segmenting the Platforms



Source: Milken Institute

However, the InsurTech sector is not just made up of full-stack insurers, agents, and brokers. While 61 of the platforms profiled fit into those categories, 43 InsurTech firms are better described as technology solution providers.

Within the universe of technology solution providers, we found that there are three subgroups:

Human Resources and Earned Benefits Solution Providers: Platforms utilizing or deploying technology to help firms manage their human capital more efficiently and cost effectively.

Data Solution Providers: Platforms that specialize in collecting, aggregating, and/or analyzing vast quantities of data to support (re)insurance carriers, startups, and other stakeholders in the insurance ecosystem to better evaluate or underwrite risk or provide platforms with a way to standardize and analyze disparate data formats.⁷

Infrastructure Solution Providers: Platforms that focus on making back-end processes more efficient through the use of application programming interfaces (APIs) or that provide the means by which platforms can integrate and/or build customizable insurance products and services.

We note the following caveats to our segmentations:

This is a nonrepresentative, nonrandom sample of InsurTech platforms. There are up to, if not more than, 1,500 InsurTech platforms operating around the world today.⁸ The landscape attached to this paper explores 104 InsurTech platforms. These platforms were not selected from a random sample. The bulk of the InsurTech platforms included in the landscape were chosen based on their reference in news media articles and press releases over the past several months or various academic and industry reports covering the InsurTech space.⁹ The findings and key takeaways that will be discussed in the following pages are not representative of the entire InsurTech population and are merely meant to flesh out the types of InsurTech platforms that we profiled for the purposes of this report.

⁷ When we say “(re)insurance” we are referring to both reinsurance and insurance carriers.

⁸ Andrew Neman and Andrew Johnston. “How Insurtech Could Alter the Foundations of Risk: Capital Matching.” Willis Towers Watson. September 25, 2017. <https://www.willistowerswatson.com/en/insights/2017/09/How-insurtech-could-alter-the-foundations-of-risk-capital-matching>. We note that since InsurTech is defined differently among stakeholders in the insurance sector, the number of InsurTechs could be less than or greater than 1,500.

⁹ We note that we relied heavily on articles, press releases, Google Alerts, blogs, etc. that are in the English language. We are aware that there are a number of InsurTechs that may not get mentioned or picked up by domestic and international English-language publications. This is why we felt the need to caution readers that this is a non-random, non-representative sample of InsurTech firms.

METHODOLOGY

Despite our best efforts to contact each of the InsurTech firms profiled, we received feedback from slightly more than half (55 percent) of the platforms covered. In building out the accompanying landscape to this report, we reached out to all platforms identified in the landscape and requested feedback on each profile to ensure accuracy. Unfortunately, we did not receive a response from all of the platforms profiled.

ANALYSIS

In this section, we provide an in-depth look into InsurTech with a focus on terminology, the ecosystem that supports InsurTech formation, and InsurTech-specific regulatory developments. We also break down the types of InsurTech models profiled in the landscape.

INSURTECH TERMINOLOGY

While there is no standard definition of “InsurTech,” we focused on a more inclusive definition for this paper.

The use of the term InsurTech has become nearly as commonplace as the use of the more general term “FinTech.” There is no one standard definition for “InsurTech.” In the course of our research, we came across several definitions, each with different views of the term.¹⁰ For the purposes of this paper, we find the following definition provided by Sia Partners back in 2016 to be the most useful:

InsurTech can be described as “an insurance company, intermediary, or insurance value chain segment specialist that utilizes technology to either compete or provide valued-added benefits to the insurance industry.”¹¹

More important, and what motivated us to compile this report, is to understand what’s underneath the hood. Meaning, in order to really understand InsurTech, the policymakers, regulators, and wider public must understand the players operating within InsurTech and the differentiating models and focuses of each platform.

Looking beyond just the InsurTech term itself is important to avoiding the ever-present concern that InsurTech platforms could be at risk of broad regulatory and policy intervention or scrutiny which could lead to overgeneralizations of InsurTech platforms without

¹⁰ Examples include KPMG: “Companies whose primary business involves the novel use of technology in order to price, distribute, or offer insurance directly.”; Angela Scott-Briggs, TechBullion: “The term InsurTech is closely related to the changes in the insurance industry which depends on the needs of the evolution of digital technology.”; Caggemini, Efma: “‘InsurTech’ refers to technology-based capabilities that have specific application in insurance, whereas ‘InsurTech firms’ refer to firms with offerings based on InsurTech capabilities, that are generally less than five years old and have a relatively small but growing customer base.”; McKinsey: “‘InsurTechs’ are technology-led companies that enter the insurance sector, taking advantage of new technologies to provide coverage to a more digitally savvy customer base.”; National Association of Insurance Commissioners: “The term ‘InsurTech’ can be described as the innovative use of technology in insurance. InsurTech is a subset of ‘FinTech,’ or financial technology.”

¹¹ “InsurTech: A New Path for Digital Capability Development.” Sia Partners. January 5, 2016. <http://en.finance.sia-partners.com/insurtech-new-path-digital-capability-development>.

accounting for or understanding the different models, platforms, and services that exist underneath the term (much like FinTech platforms that operate as marketplace lenders, but are grouped together under the more expansive term “online lending”).

INSURTECH ECOSYSTEM

There are a variety of actors involved in the InsurTech space, but incumbents are increasingly becoming the driving force behind InsurTech’s growth and development.

Venture Capital Investment and Incumbent Involvement

Investment in InsurTech continues to climb, but unlike what we have seen in several other FinTech verticals, investment is increasingly driven by incumbents and not solely from the venture capital space. In May 2017, the global advisory firm Willis Towers Watson, together with Willis Re and CB Insights, released its inaugural quarterly report on the InsurTech industry. In particular, the report documents the rise of InsurTech investment over the past few years, with investment really starting to flow into startups operating in the property and casualty, life, or health insurance spaces beginning in 2013. By 2015, investment skyrocketed to nearly \$2.7 billion, a 900 percent increase from 2013 levels.¹²

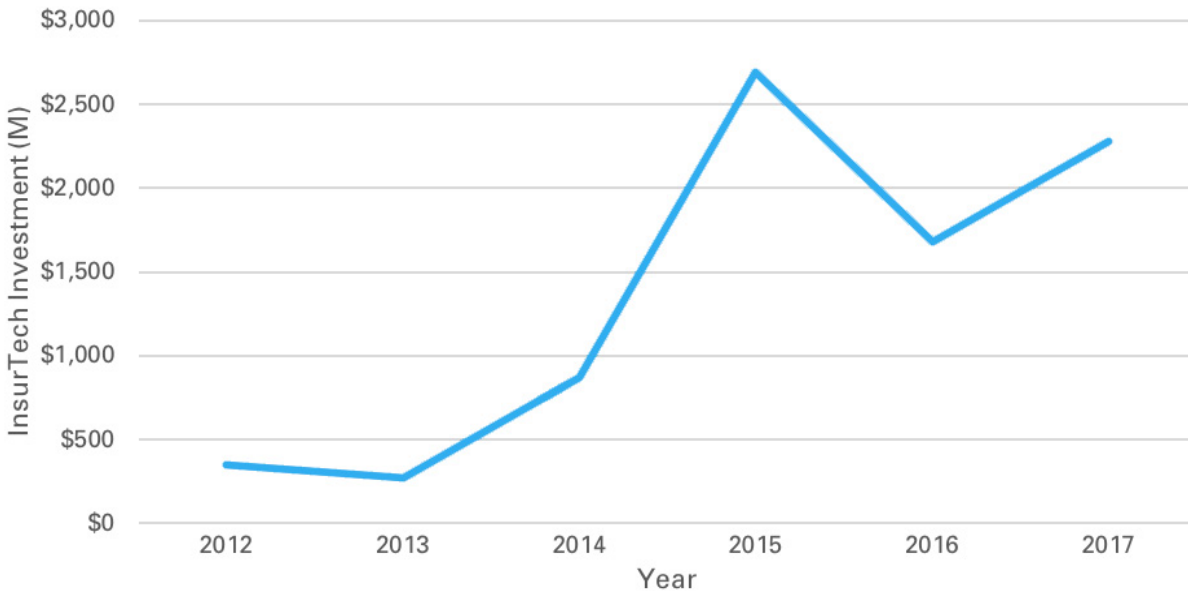
Between 2015 and 2017, more than \$6.5 billion was invested in InsurTech firms, representing nearly three quarters of the \$9 billion in investment that has flowed to InsurTech firms since 2012.¹³ In the first quarter of this year alone, nearly \$725 million was invested in InsurTech firms—a 155 percent year-over-year increase (see Figure 2).¹⁴

¹² Quarterly InsurTech Briefing, Q1 2018. Willis Towers Watson. May 2018. Available at: <https://www.willistowerswatson.com/-/media/WTW/PDF/Insights/2018/05/quarterly-insurtech-briefing-q1-2018.pdf>.

¹³ Ibid.

¹⁴ It is important to note that the sudden spikes in this chart are the result of massive investments in a few InsurTechs. For instance, in 2015, Zenefits and ZhongAn both had massive investment rounds in the second quarter of 2015 - \$500 million and \$931 million, respectively. In 2017, SoftBank Vision Fund invested \$550 million in the \$1.5 billion Hong Kong IPO of ZhongAn Insurance. Without these investment spikes, you would still see an upward trend in InsurTech investment over time. Lastly, this graph only charts investment in P&C, Life and Health insurance, not other insurance segments such as Title Insurance, for instance.

Figure 2: Annual InsurTech Investment: Property and Casualty and Life and Health (2012-2017)



Source: Willis Towers Watson

Investment from incumbent players in the insurance sector continues to make waves. A Willis Towers Watson quarterly report on InsurTech trends and financing found that there were 35 private technology investments by (re)insurers in the fourth quarter of last year, with 120 private technology investments by (re)insurers in all of 2017—the highest totals recorded in any quarter and year to date, according to the report.

Investments by (re)insurers are largely concentrated in platforms that enhance product delivery, underwriting, claims management, and other processes and activities. In that same report by Willis Towers Watson, two statistics stand out:

Roughly **65 percent** of incumbent InsurTech investments to date have been in businesses focused on enabling the value chain, with insurers and reinsurers striving to enhance the efficiency of product delivery, underwriting, claims, and other administrative functions.

Less than **10 percent** of InsurTech investments to date have flowed into startups targeting full-scale value chain disruption.

As is apparent in the landscape, investment from incumbent stakeholders has largely flowed towards platforms acting as brokers, agents, or technology solution providers themselves vs. investment in full-stack digital insurers that seek to unseat incumbent carriers.

Plus, full-stack digital insurers are few and far between (as we explore further below). The InsurTech ecosystem is much more focused on collaboration compared to outright competition with incumbent stakeholders operating along the insurance value chain. In another example, a McKinsey & Company report finds that 61 percent of all InsurTech platforms today offer their services to insurers, 30 percent are focused on disintermediating the customer, and only 9 percent of InsurTech platforms are aiming to replace incumbents.^{15,16}

Cooperation between startups and incumbents right out of the gate in the insurance sector is the exact opposite of what we saw in the early part of this decade with U.S. online, nonbank financing startups viewing themselves as the barbarians at the gates of incumbent banks and other financial services firms.

InsurTech Launch and Geographic Location

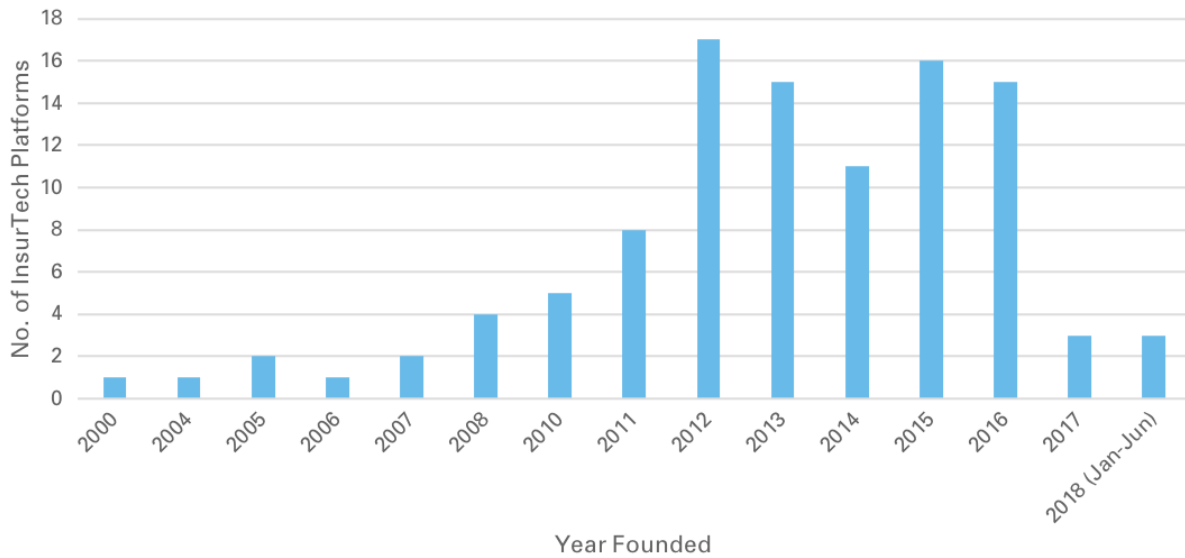
The increasing amount of capital flowing to this space has also, not surprisingly, led to an explosion in InsurTech formation.

Figure 3 captures the launch date of InsurTech platforms profiled in the landscape. As is readily apparent, there has been a tremendous amount of new InsurTech startup formation between 2011 and 2016. In fact, of the 104 platforms profiled in the landscape, 82 of them (79 percent) launched between 2011 and 2016.

¹⁵ Tanguy Catlin, Johannes-Tobias Lorenz, Björn Münstermann, Braad Olesen, and Valentino Ricciardi. Insurtech—the threat that inspires. McKinsey. March 2017. Available at: <https://www.mckinsey.com/industries/financial-services/our-insights/insurtech-the-threat-that-inspires>.

¹⁶ Analysis conducted via McKinsey's Panorama InsurTech database.

Figure 3: Launch of InsurTech Platforms*



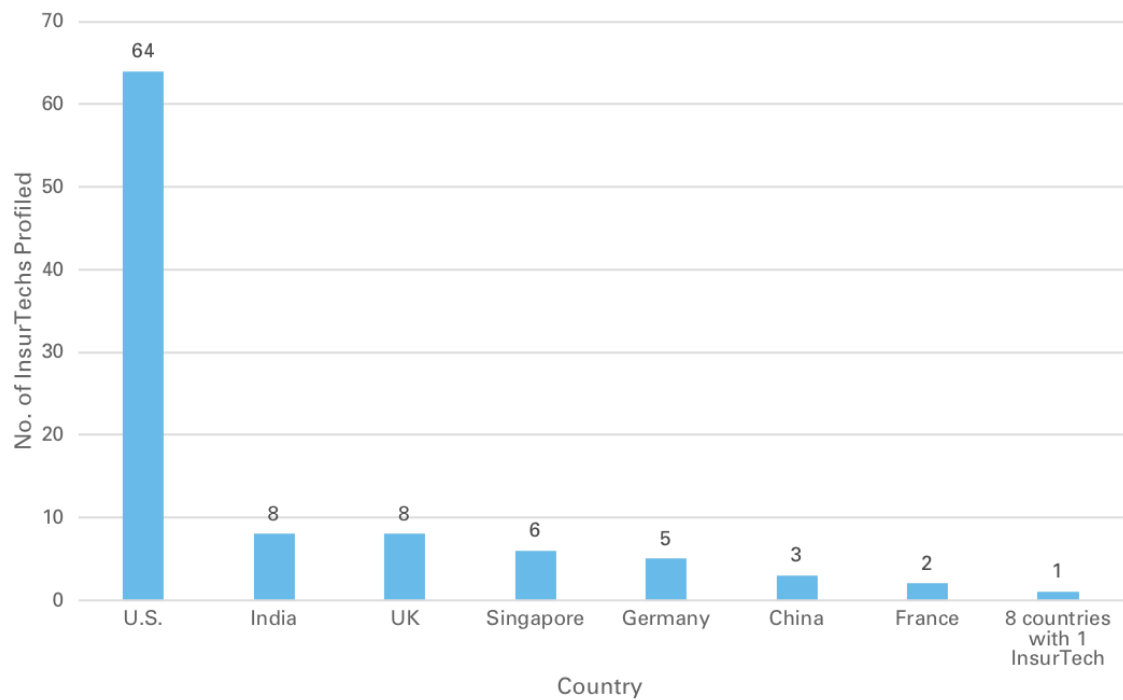
Source: Milken Institute

*Note: Launch date may also refer to when a company changed its name or when a company began offering insurance products and services

We also looked at where InsurTech platforms launched. Figure 4 shows that the U.S., U.K., India, Singapore, and Germany rounded out the top five countries with the most InsurTech startups. Of the 104 InsurTech platforms profiled in this report, just under 90 percent are headquartered in those five countries. The U.S., in particular, accounts for 64 of the 104 InsurTech platforms profiled (62 percent).¹⁷

¹⁷ We would again reiterate that the above numbers detailing when and where InsurTechs launched is based on the InsurTech landscape and should not be viewed as representative of the entire InsurTech ecosystem. As we stated earlier, this is a non-representative, non-random sample of InsurTech platforms. There may be significant InsurTech activity in Asia, for instance, that we simply did not come across due to a lack of press coverage in the area and/or Google Alerts that simply provided us with InsurTech headlines only in the English language.

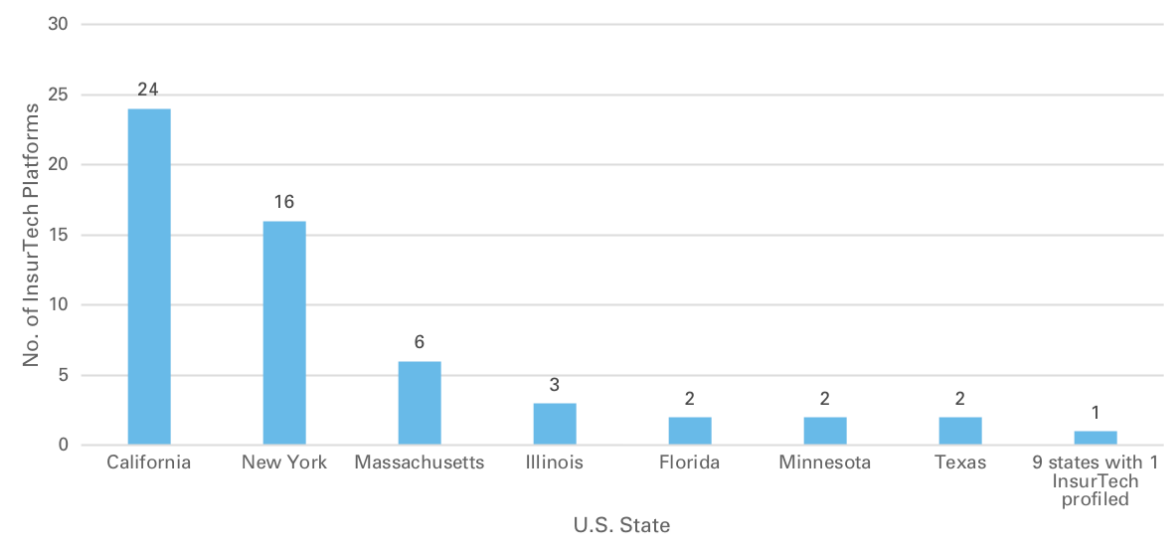
Figure 4: InsurTech Platforms by Country



Source: Milken Institute

When we drill down on the U.S. number, Figure 5 shows that the top three states with the most InsurTech startups are: California (24), New York (16), and Massachusetts (6).

Figure 5: Number of InsurTech Platforms by U.S. State



Source: Milken Institute

Accelerators, Hubs, and Other Actors

Beyond the headline investment numbers and investors in the InsurTech space, there are a number of other actors providing support to fledgling InsurTech firms. In our analysis of the InsurTech landscape, we uncovered a wide range of actors facilitating the growth and development of InsurTech in various countries and regions around the world. Among the participants include:

InsurTech Hub Munich	Launchpad Digital Health
Income Future Starter	FinTech Innovation Lab
Anthemis Group	FinLeap
1871	Y Combinator
Barclays Accelerator (powered by Techstars)	InsurTech Accelerator (Bangalore)
Techstars	AngelPad
Hartford InsurTech Hub	MOX—the Mobile Only Accelerator
Startupbootcamp InsurTech	Microsoft for Startups
Global Insurance Accelerator	Upscale
Massachusetts Institute of Technology	NVIDIA Inception Program
Plug and Play Insurance	SAP Startup Focus
Ping An Fin+Tech Accelerator	Chinaccelerator
Collab	OnRamp Insurance Accelerator
StartUp Health	

Beyond these players, it is also worth noting the growing number of insurance carriers who have opened up their own innovation arms to cater to InsurTech, build their own models, or simply understand the innovations entering and being offered in the insurance sector. Figure 6 provides a look at the innovation arms among (re)insurers.

Figure 6: (Re)insurers with Innovation Units¹⁸

 Innovation Unit	 Innovation Unit	 FAIR Ventures	 Firemark Labs	 Munich RE	 SCOR P&C Ventures
 Global Innovation Center	 White Collar Factory	 FARMERS INSURANCE	 Tech Lab	 MS Amlin Edge	 SOMPO Sampo Digital Lab
 Innovation Office	 Fulfilling the Promise Since 1876	 Innovation Garage	 intact Lab	 Nationwide REFINERY	 State Auto Labs Corp.
 Asia Lab	 Innovation Lab	 GORE MUTUAL	 John Hancock LOFT	 NN SPARKLAB Powered by NN Non-Life	 Timbu Square CREDIT RISK SOLUTIONS Innovation LAB
 Innovation Studio	 CUNA MUTUAL GROUP	 Greenlight Re Innovation	 SOLARIA labs A LIBERTY MUTUAL ENDEAVOR	 Part of NYL Ventures	 The Camp
 Digital Garage	 Desjardins Lab	 Groupama Lab	 LLOYDS BANKING GROUP	 NFP	 USAA Labs
 Kamet Data Innovation Lab AXA Digital Agency	 Ergo Digital Ventures	 The Hanover Insurance Group	 lumenlab MetLife Innovation Centre	 PROGRESSIVE BIG	 WINDHAVEN INSURANCE ClutchAnalytics
 Baloise Group	 EHDA	 Digital Ventures	 MARSH Marsh Digital Labs	 QBE Digital Innovation Lab	 XL CATLIN Accelerate

Source: Avi Ben-Hutta, Coverager

¹⁸ Avi Ben-Hutta. "Insurance Players with Innovation Units." Coverager. May 14, 2018. <https://coverager.com/insurers-with-innovation-units/>.

REGULATORY AND POLICY INITIATIVES TO ADDRESS INSURTECH

Beyond accelerators, incubators, corporate innovation arms, and InsurTech hubs, regulators from several countries have made significant strides to understand the various models, products, and services offered by InsurTech firms, and whether current regulatory structures need to adapt to accommodate an increasingly digital insurance experience.

To further understand how advancements in technology are reshaping the insurance industry and what this means for the end user, regulatory authorities around the world have launched regulatory sandboxes, providing a fertile testing ground for both startups and incumbents in the insurance sector to experiment in a controlled setting prior to launching to the broader marketplace.¹⁹

What's interesting about regulatory sandboxes, especially for the focus of this paper, is that we are beginning to see the emergence of vertical-specific regulatory sandboxes.²⁰ Below, we profile several regulatory authorities that continue to engage with InsurTech firms through their regulatory sandbox.

Financial Conduct Authority

In May 2016, the Financial Conduct Authority (FCA) opened its regulatory sandbox to firms of all shapes and sizes, becoming the first regulatory agency in the world to launch a sandbox. Since then, the FCA has publicly released a list of firms that have been accepted to the four cohorts that have, or will undergo, testing in the sandbox.

In Appendix I, we profile the InsurTech platforms that have been accepted to the FCA's regulatory sandbox.²¹ In all, 13 InsurTech firms have been accepted out of the 89 firms allowed to participate in the sandbox (roughly 15 percent of all firms accepted).

Of the four cohorts that have been announced, what's interesting is that nearly one-third of the 24 firms selected for Cohort 2 were InsurTech platforms. In addition, as the FCA moves on to additional cohorts, InsurTech firms that utilize or operate via cryptocurrency or blockchain technology are increasingly being added.

¹⁹ There are several different forms of "sandbox" models currently in existence. Several are outlined in works published by the Aspen Institute and RegTechLab. The Aspen Institute's report, *Regulatory Sandboxes: Modernizing Digital Financial Regulation*, can be accessed here: <https://www.aspeninstitute.org/publications/modernizing-digital-financial-regulation-evolving-role-reglabs-regulatory-stack/>. The RegTechLab report, *Thinking Inside The Sandbox: An Analysis of Regulatory Efforts to Facilitate Financial Innovation*, can be accessed here: <https://www.regtechlab.io/report-thinking-inside-the-sandbox>. The Consultative Group to Assist the Poor's report, *Regulatory Sandboxes and Financial Inclusion*, can be accessed here: <http://www.cgap.org/sites/default/files/researches/documents/Working-Paper-Regulatory-Sandboxes-Oct-2017.pdf>. The Institute for Tele Information at Columbia Business School report, *The State of Regulatory Sandboxes in Developing Countries*, can be accessed here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3285938

²⁰ In a forthcoming report, we are working on a paper that will explore the mechanics and processes of the U.K. Financial Conduct Authority's regulatory sandbox. The paper will also include an up-to-date list of all regulatory and industry sandboxes operating around the world.

²¹ The Milken Institute would like to thank Paul Worthington, International Lead, FCA Innovate; and Sam Mannion, Senior Associate, Global Affairs, FCA; for their assistance in putting this list together.

Monetary Authority of Singapore

In November 2016, the Monetary Authority of Singapore (MAS) launched its regulatory sandbox. Since then, more than 30 applications have been submitted and less than a handful of companies have been selected.²² PolicyPal—a digital direct insurance broker that enables individuals to buy, manage, and optimize their insurance policies—became the first startup to enter and graduate the sandbox in 2017.²³ PolicyPal is the only InsurTech to have been accepted into the sandbox.

Beyond the broader sandbox efforts, several regulatory authorities have sought to establish InsurTech-specific sandboxes. They include:

Hong Kong Insurance Authority

In late September 2017, the Securities and Futures Commission, the Hong Kong Monetary Authority, and the Insurance Authority announced the formation of new regulatory sandboxes or enhancements to existing sandboxes. All three sandboxes, at the time of the announcement, were to be linked together, providing a single point of entry for pilot trials of cross-sector FinTech products.

The Insurance Authority, in particular, launched both an InsurTech sandbox and Fast Track—two initiatives designed to test InsurTech applications in a controlled setting and expedite the authorization process by providing the Insurance Authority with the opportunity to review proposed digital distribution channels early on, respectively.²⁴ The Authority also announced the formation of the InsurTech Facilitation Team, which is tasked with helping insurers and startups better understand the regulatory landscape and act as a platform to exchange ideas related to InsurTech.

Beyond sandboxes, the Insurance Authority has been actively connecting with regulatory authorities around the world.

²² Ong Ye Kung. "Building a Smart Financial Centre for the Future." Speech, Singapore FinTech Festival, Singapore, November 13, 2017. <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2017/Speech-by-Mr-Ong-Ye-Kung-at-the-welcome-dinner-for-ITAP-Members-and-Conference-Speakers.aspx>.

²³ Val Yap. 2017. PolicyPal is in the MAS FinTech Sandbox - Our Message to You. PolicyPal. March 6, 2017. <https://blog.policypal.com/blog/insurance/policypal-is-in-the-mas-fintech-sandbox-our-message-to-you/>.

²⁴ Hong Kong Insurance Authority. "Insurance Authority Introduces New Initiatives to Facilitate Insurtech in Hong Kong." News release, September 29, 2017. https://www.ia.org.hk/en/infocenter/press_releases/insurance_authority_introduces_new_initiatives_to_facilitate_insurtech_in_hong_kong.html.

In late 2017, the authority signed two FinTech cooperation agreements with the U.K. Financial Conduct Authority and the Dubai Financial Services Authority.^{25,26}

All of these developments come in the wake of a report in May 2017 that categorized Hong Kong as a latecomer to the FinTech party, with the looming threat of losing out to other FinTech-focused centers in the region and around the world.²⁷

Bermuda Monetary Authority

Bermuda is a hotbed for (re)insurance activity. Recently, the Bermuda Monetary Authority engaged in discussions on how to develop its InsurTech ecosystem. The authority released a consultation paper on a regulatory sandbox specifically designed for insurance firms and formed an insurance innovation working group where companies and regulators can share ideas and information with each other.²⁸

Two months later, Premier David Burt announced that the country would have an InsurTech regulatory sandbox in place by the end of July, although it is unclear at the time of this writing if the sandbox has formally launched.²⁹

Thailand Office of Insurance Commission

The Thailand Office of Insurance Commission sandbox was established in June 2017. Roughly a year later, they welcomed Singapore-based InsurTech Vouch (doing business as FairDee in Thailand) as the first InsurTech to take part in the insurance regulatory sandbox.³⁰

Several other countries are championing efforts to promote InsurTech. As we explain in Appendix II, various regulatory and government agencies, internal stakeholders, and others are laying out the welcome mat for insurance innovation.³¹

²⁵ Hong Kong Insurance Authority. "Insurance Authority and UK Financial Conduct Authority Sign Fintech Co-operation Agreement." News release, September 21, 2017. https://www.ia.org.hk/en/infocenter/press_releases/fintech_cooperation_agreement.html.

²⁶ Hong Kong Insurance Authority. "Insurance Authority and Dubai Financial Services Authority Sign Fintech Co-operation Agreement." News release, December 7, 2017. https://www.ia.org.hk/en/infocenter/press_releases/Insurance_Authority_and_Dubai_Financial_Services_Authority_sign_Fintech_co-operation_agreement.html.

²⁷ Hong Kong Financial Services Development Council. The Future of FinTech in Hong Kong. FSDC Paper No. 29. May 2017. http://www.fsd.org.hk/sites/default/files/FSDC%20Paper_FinTech_E.pdf

²⁸ Bermuda Monetary Authority. Consultation Paper: Insurance Regulatory Sandbox. April 2018. <http://www.bma.bm/document-centre/consultation-papers/INSURANCE%20Insurance%20Regulatory%20Sandbox%20Consultation%20Paper%20with%20Draft%20Bill.pdf>.

²⁹ Peter Hastie. Bermuda regulatory sandbox in place by summer: Premier Burt. Re-insurance.com. June 7, 2018. Available at: <https://www.re-insurance.com/news/bermuda-regulatory-sandbox-in-place-by-summer-premier-burt/1126.article>

³⁰ In July 2018, the Milken Institute produced a report titled, Framing the Issues: The Future of Finance in Thailand. The report captured the day-long roundtable held by the Institute and the Bank of Thailand back in March, where senior Thai policymakers, regional regulators, banking and FinTech executives discussed how new technologies are reshaping finance, the response of traditional financial institutions, and the challenges policymakers and regulators face in seeking to encourage innovation, yet maintain robust protections. The report is available here: <https://www.milkeninstitute.org/publications/view/924>.

PLATFORM MODELS: BY THE NUMBERS

As we stated previously, the term “InsurTech” is continually expanding in scope, encompassing a variety of platform models operating at certain points or across the insurance value chain. The real fear is that the failure to properly distinguish the platforms underneath the broader term “InsurTech” risks the very real potential for misinformed or misaligned policy and regulatory actions that could have significant ramifications on the growth of InsurTech.

To unpack the term and to help provide policymakers, regulators, and the broader public with a more informed understanding of the rapid developments occurring in the insurance sector, we segmented platforms based on their platform model, as well as by the insurance products and services offered.³²

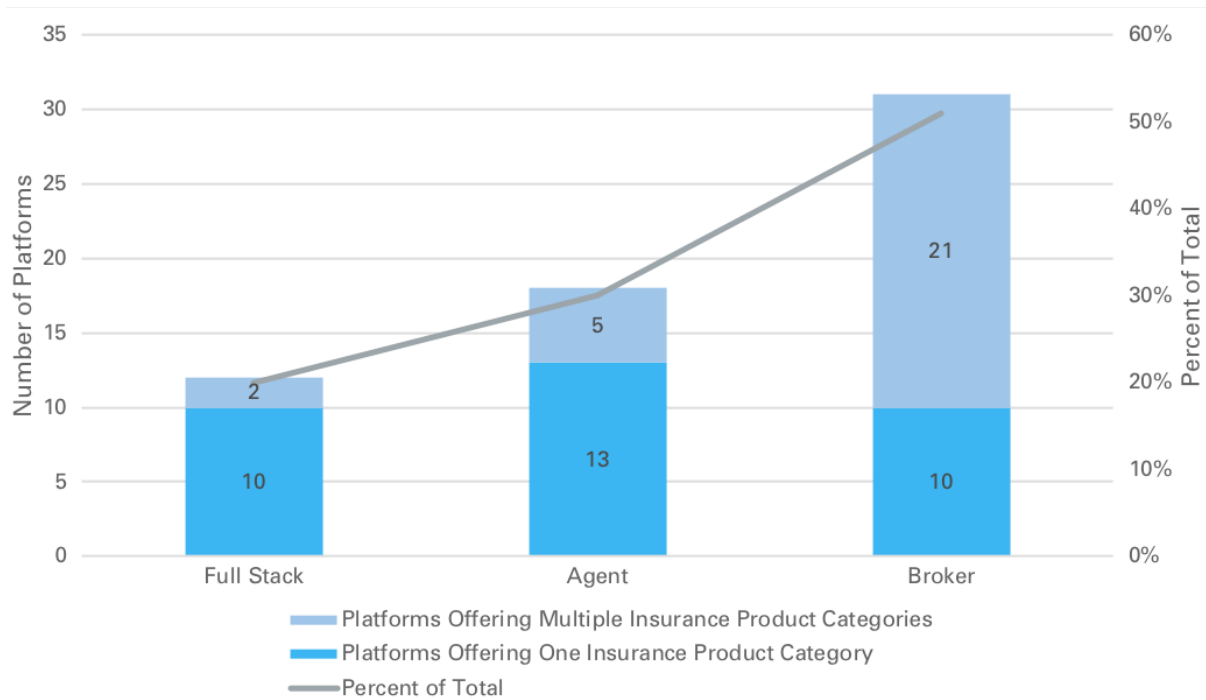
Full-Stack Insurers, Agents, and Brokers

As seen in Figure 7, we identified 61 platforms as full-stack insurers (12), agents (18), or brokers (31). Several platforms provide customers with access to more than one product category. In particular, roughly two-thirds of InsurTech platforms identified as brokers offer more than one product.

³¹ We compiled most of the information from past publications of the Institute’s weekly newsletter, FinTech in Focus. You can sign up to the newsletter by accessing the following link: <https://bit.ly/2p7sXwQ>.

³² The methodology portion of this paper highlighted the thought process used to determine the appropriate category based on each platform’s model.

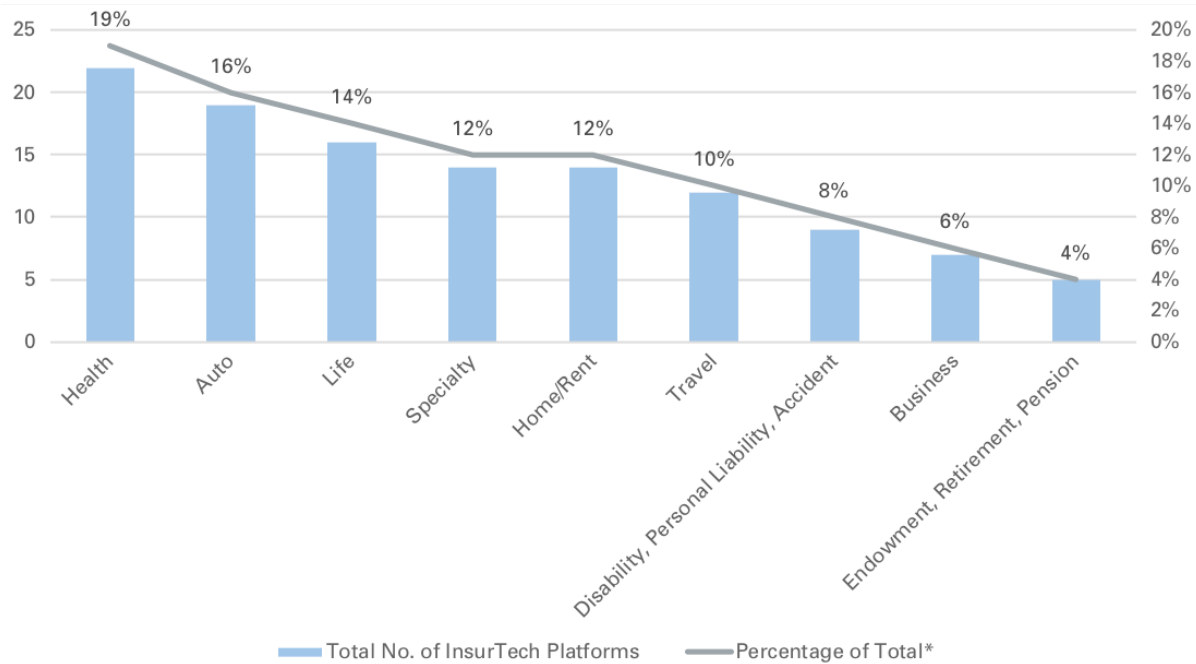
Figure 7: InsurTech Platforms Offering One or Multiple Products



Source: Milken Institute

We also tallied the number of full-stack insurers, agents, and brokers that offer services in one or more product categories. Figure 8 provides a review of the total number of InsurTech platforms involved in each product category.

Figure 8: InsurTech Platforms by Product



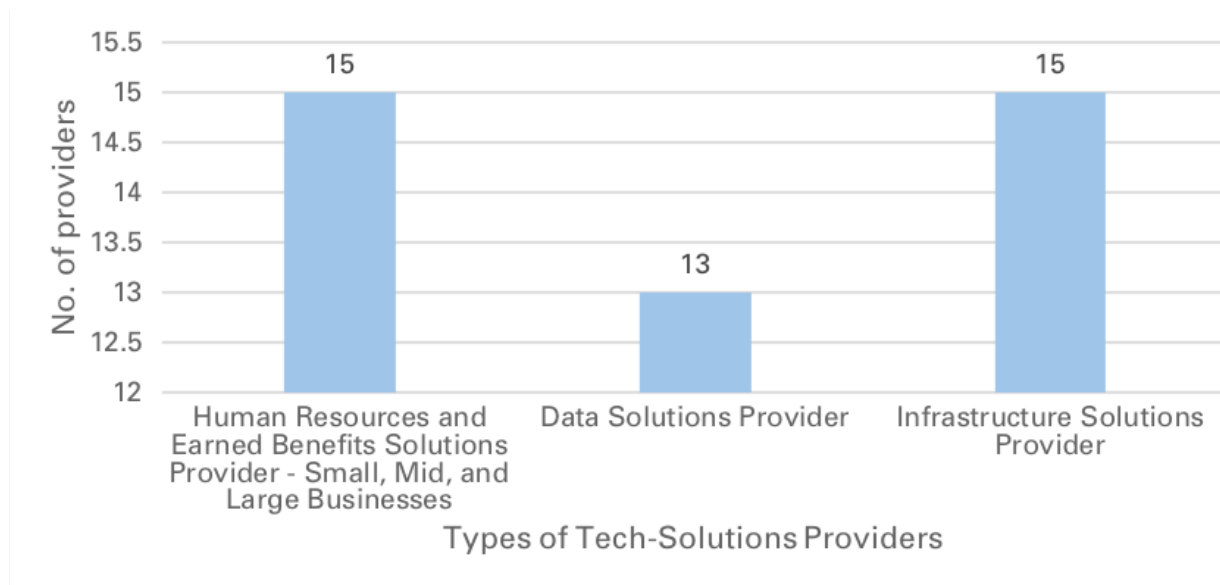
Source: Milken Institute

**Note: The total number of InsurTech platforms offering the specified product categories is 118. Since some InsurTech platforms offer multiple product categories, they have been double counted. As such, the percentages in the chart are based out of 118, not 61. The percentages may not equal 100 percent, due to rounding.*

Technology Solution Providers

Of the 104 InsurTech platforms profiled in the landscape, we identified 43 firms as technology solution providers (Figure 9). We then segmented these providers into three categories: human resources and/or earned benefits solution providers, data solution providers, and infrastructure solution providers.

Figure 9: Technology Solution Providers



Source: Milken Institute

ADDITIONAL QUESTIONS TO CONSIDER

We recognize that InsurTech is still in its early stages with investment and startup formation continuing to flourish. However, based on the findings from our research, we believe there are several questions to consider in further evaluating this emerging ecosystem.

Is InsurTech truly disruptive?

Based on the landscape, there is a clear preference among InsurTech startups to collaborate with incumbent insurance and reinsurance carriers. The investment trends and InsurTech practices bring up the question of whether we can really call InsurTech disruptive, especially if we continue to see investment favor incumbent carriers, rather than seeking to displace them.³³

As previously stated, of the 61 InsurTech platforms identified as full-stack, agent, or broker, more than half (51 percent) of them can be

³³ Are entrants challenging current underlying structures and frameworks? We would consider that disruptive. For InsurTech, and FinTech overall, a lot of the new technologies and innovations that have and continue to emerge are simply providing greater efficiencies and enhancements to existing structures, rather than supplanting them.

considered brokers, nearly one-third (30 percent) can be considered agents, and roughly 20 percent can be considered full-stack digital insurance platforms.

³⁴ Capgemini and Efma. World Insurance Report 2017. September 2017. <https://www.capgemini.com/service/world-insurance-report-2017/>

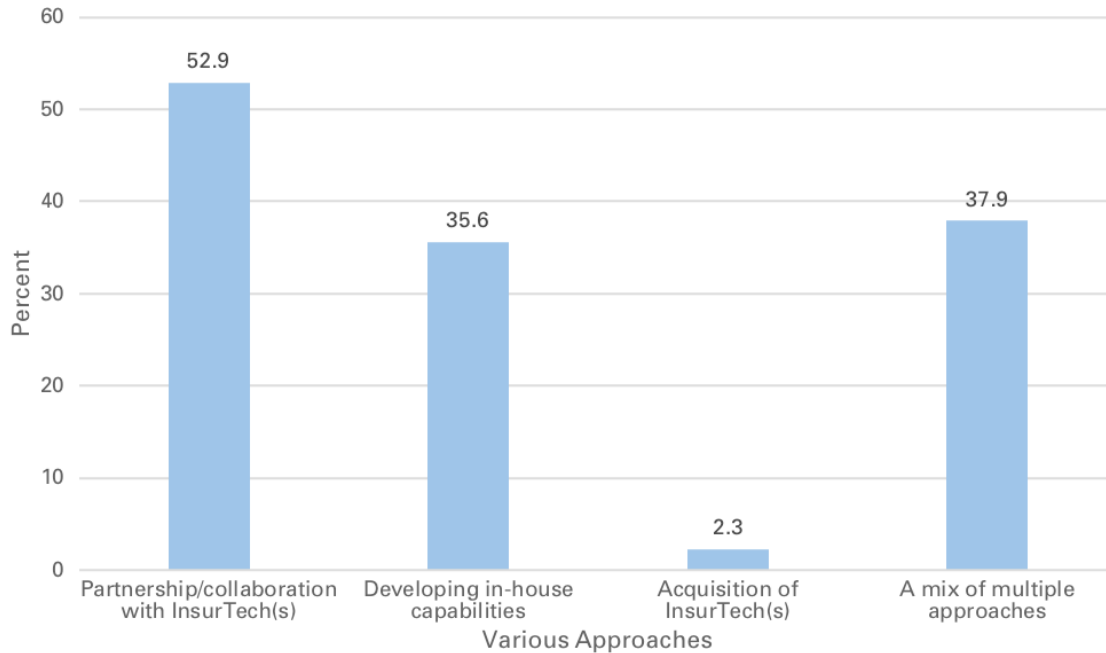
³⁵ Ibid.

Unlike the online, nonbank lending space where startups were originally seen as barbarians at the gates of incumbent financial institutions, InsurTech platforms largely prefer partnerships with incumbent insurance carriers from the outset. When we include technology solution providers with agents and brokers, nearly 90 percent of the 104 platforms profiled in the landscape have partnered with, or are seeking to engage with, one or several (re)insurance carriers to provide greater efficiencies at different points along the insurance value chain.

The shift from competitive to collaborative models is not so surprising when you look back to prior surveys. In the 2017 World Insurance Report, Capgemini and Efma identified the difficulties InsurTech platforms face when they wish to operate independently. These include high customer acquisition costs, lack of credibility and trust, lack of large capital reserves needed in order to scale, and “little know-how when it comes to mainstay tasks like managing risk or navigating regulations.”³⁴

For incumbent insurance firms, the opportunity to partner with InsurTech platforms is more attractive than building costly in-house capabilities. As Figure 10 shows, more than half of the insurance firms polled in the Capgemini and Efma report favor collaboration with InsurTech firms.³⁵

Figure 10: Insurer Approaches to Leverage Digital Technologies (Percent), 2017



Source: Capgemini and Efma

Furthermore, nearly 80 percent of insurers surveyed in a recent report by Accenture were of the view that their competitive advantage in the market would not be determined solely by their own organization, but through the strength of their partners. It is not surprising then that roughly 40 percent of insurers reported that the number of partnerships their organization has engaged in has doubled within the past two years.³⁶

³⁶ Roy Jubraj, Steven Watson, and Simon Tottman. *Fearless Innovation: InsurTech as the Catalyst for Change within Insurance*. Accenture. March 2018. <https://insuranceblog.accenture.com/wp-content/uploads/2018/03/Fearless-Innovation-Insurtech-Report.pdf>

Given all of this, future research needs to be conducted on the value that InsurTech platforms deliver to customers as a result of displacing incumbents, as compared to the value derived from working with incumbents to improve their operations. At this point, InsurTech is simply driving greater efficiencies and offering multiple ways to address the lack of customer centricity embedded in the current insurance marketplace.

Are full-stack digital insurers capable of disrupting current incumbents?

As we stated earlier, not every InsurTech platform is willing to cooperate with incumbents at the point of launch. Several platforms profiled in the landscape are actively seeking to outcompete incumbents, but it remains to be seen whether these platforms will truly prevail.

There are several reasons for this view. First, several stand-alone digital insurers continue to experience significant losses since inception. Two well-known influencers in the InsurTech space, Matteo Carbone and Adrian Jones, have documented the trials and tribulations of three InsurTech platforms, in particular: Lemonade, Metromile, and Root.³⁷

Simply put, on a gross basis, the three companies profiled in Table 1 are paying out more than \$1 in losses for every \$1 in premium collected. This is the case for full-year 2017, and the first quarter of 2018. As both Carbone and Jones write, this is unsustainable.

Table 1: Gross Loss Ratios 2017 and Q1 2018

Gross Loss Ratio	Lemonade	Metromile	Root	Clover Health
2017	161%	98%	156%	109%
Q1 2018	116%	104%	104%	-

Source: Matteo Carbone and Adrian Jones, Carrier Management (April and June 2018)^{38, 39, 40}; Christina Farr, CNBC (January 2018)⁴¹

To be fair, the platforms do recognize that the numbers are unsustainable, but believe that by leveraging technology in ways beyond traditional carriers, they can improve their underwriting capabilities over time.

³⁷ For those interested in understanding the financials and strategic positioning of some of the larger, often talked about InsurTechs (Metromile, Lemonade, Root), please take a look at the three-part series in Carrier Management by Matteo Carbone and Adrian Jones titled, Dispatches From InsurTech Survival Island: Five Takeaways from Statutory Financials.

³⁸ Matteo Carbone and Adrian Jones. "Dispatches from InsurTech Survival Island: Five Takeaways from Statutory Financials (Part 1)." Carrier Management. April 2, 2018. <https://www.carriermanagement.com/features/2018/04/02/177217.htm>

³⁹ Matteo Carbone and Adrian Jones. "Bigger and Redder: A Look at Q1 '18 for Lemonade, Other InsurTech Carriers." Carrier Management." June 15, 2018. <https://www.carriermanagement.com/features/2018/06/15/180464.htm>

⁴⁰ Matteo Carbone and Adrian Jones. "Q1 Loss Ratios Unsustainably High for InsurTech Carriers Root and Metromile." Carrier Management." June 15, 2018. <https://www.carriermanagement.com/features/2018/06/15/180484.htm>

⁴¹ Christina Farr. "Clover Health got \$425 million to disrupt health insurance -- but so far it's upset customers and missed its numbers." CNBC. January 3, 2018. <https://www.cnbc.com/2018/01/03/clover-health-insurance-start-up-angered-customers-missed-financials.html>

For instance, Lemonade’s cofounder, Shai Winer, noted that the firm’s loss ratio is about 60 percent higher than where they would like it to be, but that the influx of data the company has received since its launch is beginning to lead to encouraging results in reducing the loss ratio further.⁴² In all, the company estimates that it is 12 to 24 months away from reaching data parity with incumbents, “and well-placed to outperform incumbents thereafter.”⁴³

⁴² Shai Winer. “We Suck, Sometimes: The Highs and Lows of Lemonade’s First Half of 2018.” Lemonade. June 21, 2018. <https://www.lemonade.com/blog/lemonade-transparency-review/>

Root’s CEO, Alex Timm, also highlighted the value of leveraging alternative data to build superior loss models, and noted, in a Reddit Q&A, that loss ratios tend to run higher for new businesses before the impacts of underwriting are fully understood.⁴⁴

⁴³ Daniel Schreiber. “Two Years of Lemonade: A Super Transparency Chronicle.” Lemonade. September 20, 2018. <https://www.lemonade.com/blog/two-years-transparency/>

With any startup, particularly those seeking to dislodge current incumbents in the insurance marketplace, there are a lot of “ifs” as to whether or not platforms will ultimately reach enough scale and profitability to truly disrupt insurance as we know it. Despite the current unsustainable loss ratios and mere expectations that such platforms will be able to leverage advanced technologies to bring losses down to a sustainable level, there are few warning signs about the overall health of these platforms given the following:

⁴⁴ Alex Timm provided information on Root’s business and answered questions in a Reddit Ask Me Anything forum. The discussion took place in April 2018. https://www.reddit.com/r/IAMA/comments/8c0ygx/we_are_root_a_car_insurance_company_thats/

They have significant runway on which to operate. Full-stack insurers continue to raise considerable sums of money, as documented in the landscape. All of this is to say that there remains investor appetite for stand-alone InsurTech platforms seeking to fundamentally reshape the insurance sector as well as a willingness among investors to expend considerable capital with the understanding that a quick return (whether IPO, M&A, etc.) is unlikely.

Despite headwinds, expansion continues. Stand-alone InsurTech platforms face considerable costs to scale. Similarly, complex regulatory frameworks and difficult political headwinds could make for an incredibly difficult environment to operate in.

Focusing specifically on the U.S., this complexity was highlighted in a recent U.S. Treasury Department report covering nonbank financials, FinTech, and innovation.⁴⁵ The fourth and final report, in a series of reports that address the Trump administration's core principles for financial regulation, highlighted the regulatory environment that stakeholders in the U.S. insurance sector face that could limit innovation. Without mentioning specific recommendations, the challenges include:

- High regulatory barriers to entry
- Little flexibility for regulators to accommodate new products or technologies
- Inconsistent laws and regulations (or the possibility of the inconsistent application of laws and regulations) across the 50 states
- Lengthy product approval processes

As an example, U.S.-based Root Insurance utilizes high-frequency sensor data from various instruments in a user's mobile phone to underwrite drivers based on metrics that determine how distracted a driver is and whether the user texts while driving. However, not every state allows insurance companies to underwrite policies based on the use and analysis of such data.⁴⁶

Separately, the intense political pressure applied to the Affordable Care Act has had an effect on certain InsurTech platforms. Multiple efforts to repeal the Affordable Care Act, including separate efforts to remove provisions such as the so-called "individual mandate," have forced some InsurTech platforms to pivot their business plans.

For instance, Oscar Health, which was originally designed to help support insurance exchanges by providing a platform for individuals to receive health insurance coverage, moved away from strictly

⁴⁵ U.S. Department of the Treasury. "Treasury Releases Report on Nonbank Financials, Fintech, and Innovation." News release, July 31, 2018. <https://home.treasury.gov/news/press-releases/sm447>.

⁴⁶ Anna Hensel. "Root Insurance's \$51 million funding round is one of the largest raised by an Ohio tech startup." VentureBeat. March 27, 2018. <https://venturebeat.com/2018/03/27/root-insurances-51-million-funding-round-is-one-of-the-largest-raised-by-an-ohio-tech-startup/>

focusing on individual health insurance to offering tech-driven health insurance for U.S. employers and directly integrating its platform with doctors and hospitals.⁴⁷

These difficulties may contribute, or be primarily responsible for, the dearth of stand-alone digital insurers compared to the plethora of InsurTech platforms working with incumbent carriers and other stakeholders to make current processes more efficient.

Even so, for those digital insurers that are up and running, they are increasingly expanding their operations throughout the U.S., as seen in Appendix III.

Not surprisingly, as these stand-alone digital insurers have expanded their operations, so too have the total gross premiums they receive. Going back to the work compiled by Carbone and Jones on the larger, stand-alone InsurTech platforms, gross premiums collected by these types of platforms (Table 2) continued to rise (and in some cases, rise aggressively) over the course of the last year and a half.

Table 2: Gross Premiums (\$M)

Platform	Q1 2018	Q4 2017	Q3 2017	Q2 2017	Q1 2017
Root	\$7.9	\$2.6	\$0.881	\$0.380	\$0.115
Growth Rate Over Prior Quarter	205%	194%	132%	231%	
Lemonade	\$7.5	\$4.6	\$2.5	\$1.3	\$0.563
Growth Rate Over Prior Quarter	63%	81%	88%	138%	
Metromile	\$19.1	\$15.4	\$14.9	\$12.2	\$10.4
Growth Rate Over Prior Quarter	25%	3%	22%	17%	

Source: Matteo Carbone and Adrian Jones, *Carrier Management (June 2018)*⁴⁸

⁴⁷ CB Insights. "How Oscar Health is Beginning to Hedge Against Obamacare." November 2, 2017. <https://medium.com/@CBinsights/how-oscar-health-is-beginning-to-hedge-against-obamacare-76830cfc99cb>

⁴⁸ Figures are rounded. To see exact figures, please refer to Matteo Carbone and Adrian Jones work found in the following links: <https://www.carriermanagement.com/features/2018/06/15/180464.htm> and <https://www.carriermanagement.com/features/2018/06/15/180484.htm>

Of course, as Carbone and Jones point out, the positive growth figures will start flashing red if certain InsurTech platforms are unable to bring down loss ratios and expense ratios to a sustainable level, if reinsurers backing several of the larger InsurTech platforms start to get cold feet, or if platforms are unable to find balance between scaling up and avoiding higher underwriting losses.⁴⁹

Time will tell.⁵⁰ While several of the more well-known (and funded) InsurTech platforms are still relatively young, future research needs to examine their overall viability utilizing a longer time horizon and whether these platforms can ultimately survive acting as digital, stand-alone insurers in direct competition with incumbent carriers.

Will Big Tech become the disrupters?

What's already playing out in lending, payments, wealth management, and other FinTech subverticals has come to the shores of insurance. Large technology companies are increasingly making inroads into the insurance sector in a number of ways.

This should not come as a surprise when you consider demographic changes and more digitally connected, savvy generations favoring larger tech firms to provide financial products and services, including insurance. Take the Capgemini and Efma report. Roughly 40 percent of Gen Y and nearly 50 percent of "tech savvy" respondents in the report are "particularly primed to switch loyalties because they cite lower positive experiences, say they are more likely to change their insurance provider within 12 months and are more open to purchasing insurance products from tech firms."⁵¹

In that same report, Capgemini and Efma found that nearly one-third of the 10,000 customers surveyed would consider buying at least one insurance product from a Big Tech firm, if the offering was made available.⁵²

⁴⁹ "Insurtechs Haven't Yet Made Impression on Public." *Insurance Journal*. May 2, 2018. <https://www.insurancejournal.com/news/national/2018/05/02/487864.htm>. J.D. Power, which focused mostly on the auto insurance industry, found that just six percent of prospective customers were aware of at least one of the following InsurTechs: Lemonade, Metromile, Trov and Sure.

⁵⁰ In subsequent work covering the financials of several full-stack digital insurers, both Jones and Carbone note that these companies "have yet to show the ability to win at a sword fight, battle of wits, ROUS attack—or to generate a sustainable loss ratio under 100." Both authors also note that the financial pictures for these startups "are similar to the ones we presented in the 2017 edition and first-quarter 2018 edition." Insights on the second quarter statutory financials for several full-stack digital insurers can be accessed here: <https://www.carriermanagement.com/features/2018/09/06/183806.htm>.

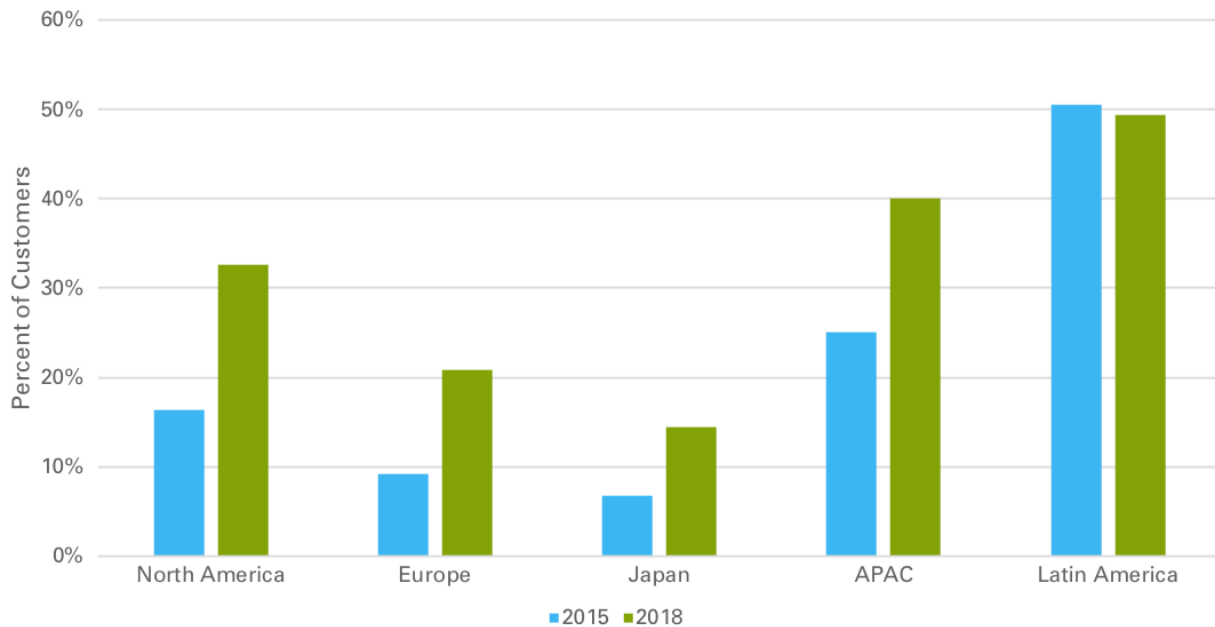
⁵¹ Capgemini and Efma. *World Insurance Report 2018*. May 2018. <https://www.worldinsurancereport.com/>.

⁵² *Ibid.*

ANALYSIS

As Figure 11 illustrates, despite differences between the various countries profiled, customers are increasingly looking for Big Tech insurance solutions/offerings.

Figure 11: Customers Willing to Purchase Insurance from Big Tech Firms (%)



Source: Capgemini and Efma

Beyond demographic changes and shifting demands and preferences, large technology companies have increasingly moved into the insurance sector through investments, partnerships, government initiatives and regulatory approval, and mergers and acquisitions.

Table 3 highlights the entrance of certain tech platforms into the insurance space over the past few years.

Table 3: Big Tech's Entrance into Insurance (as of November 2018)

Investment

Amazon: In 2018, Amazon continued its expansion into India's insurance marketplace with a \$12 million investment round in Mumbai-based InsurTech firm Acko. The investment comes roughly three years after Amazon led a Series C funding round in BankBazaar.⁵³

Ant Financial, Ping An, Tencent Holdings: In 2013, the firms jointly invested to launch Zhong An, China's first online property and casualty company and the only company, at the time, to receive an internet insurance license from regulators. In its first year of operation, the company underwrote 630 million insurance policies and serviced more than 150 million clients.⁵⁴ Four years later, the company sold nearly 6 billion policies to 460 million customers and publicly listed on the Hong Kong Stock Exchange, raising \$1.5 billion that initially valued the company at nearly \$13 billion. The raise marked Hong Kong's largest ever FinTech stock offering.^{55,56} In China alone, the online insurance market is expected to reach \$300 billion by 2025.⁵⁷

Google: Alphabet—the parent company of Google—through its venture arms Google Ventures and Capital G, has made several InsurTech investments, including in Collective Health, Clover, and Oscar

Joint Venture / Partnerships

Amazon: In 2018, Amazon is reportedly speaking with a number of European insurers to launch an insurance comparison website in the U.K., possibly focused on home insurance.^{58,59} In 2016, Amazon launched Amazon Protect in the U.K., in collaboration with The Warranty Group.⁶⁰ A year and a half later, Amazon Protect is now offered in four more European markets (France, Germany, Italy, and Spain).⁶¹

⁵³ Rasul Bailay. "Amazon Buys Minority Stake in Bankbazaar." *The Economic Times*. July 02, 2015. <https://economictimes.indiatimes.com/small-biz/startups/amazon-buys-minority-stake-in-bankbazaar/articleshow/47904658.cms>.

⁵⁴ Hugh Terry. "Zhong An - China's First Complete Online Insurance Company." *The Digital Insurer*. <https://www.the-digital-insurer.com/dia/zhong-an-chinas-first-complete-online-insurance-company/>

⁵⁵ Don Weinland and Oliver Ralph. "ZhongAn launches insurtech concept to world." *Financial Times*. September 24, 2017. <https://www.ft.com/content/c9d10ada-9eb1-11e7-8cd4-932067fbf946>

⁵⁶ Fiona Lau and Elzio Barreto. "China online insurer ZhongAn prices HK IPO at top end, raises \$1.5 billion: IFR." *Reuters*. September 22, 2017. <https://www.reuters.com/article/us-zhongan-ipo/china-online-insurer-zhongan-prices-hk-ipo-at-top-end-raises-1-5-billion-ifr-idUSKCN1BX0C1>

⁵⁷ Lulu YiJun Chen and Prudence Ho. "Zhongan Online P&C Insurance Pulls H.K. IPO Plans; China Listing Eyed: Sources." *Insurance Journal*. December 21, 2016. <https://www.insurancejournal.com/news/international/2016/12/21/436232.htm>.

⁵⁸ Helen Reid. "Europe's insurers tumble on report Amazon eyeing home insurance move." *Reuters*. June 6, 2018. Available at: <https://www.reuters.com/article/us-europe-stocks-insurers/europes-insurers-tumble-on-report-amazon-eyeing-home-insurance-move-idUSKCN1J21VT>

⁵⁹ Ryan Browne. "Amazon is reportedly considering an insurance comparison website for the UK." *CNBC*. August 16, 2018. Available at: <https://www.cnn.com/2018/08/16/amazon-in-talks-about-uk-insurance-comparison-website-reuters.html>

⁶⁰ "Peace of Mind with Amazon Protect: Amazon.co.uk Launches New Product Protection." *News release*, April 20, 2016. Amazon (UK). <http://phx.corporate-ir.net/phoenix.zhtml?c=251199&p=irol-newsArticle&ID=2158561>.

⁶¹ "A Look At Amazon Protect: Amazon's Warranty Insurance Brand Expands In Europe." *CB Insights*. September 21, 2017. <https://www.cbinsights.com/research/amazon-protect-product-insurance>

Joint Venture / Partnerships

Baidu: In 2015, Chinese internet giant Baidu, Allianz, and Hillhouse Capital Group launched a joint venture to offer innovative digital insurance solutions in China. At the time of the announcement, the internet giant had more than 640 million monthly active users.⁶²

Google: In 2017, Alphabet's self-driving technology unit, Waymo, partnered with InsurTech firm Trov, providing users with the world's first customized trip protection for Waymo services, underwritten by Munich Re.⁶³ That same year, InsurTech firm Ladder partnered with Amazon and Google to deliver its life insurance product to users through Amazon Alexa and Google Home.⁶⁴ In 2012, Google launched Google Compare in the U.K., offering a comparison platform where users could shop for car insurance. In 2015, the platform expanded to several U.S. states, with partnerships with Compare.com, CoverHound, and other InsurTech firms. The website shut down in 2016 due to the service failing to deliver anticipated results.^{65,66}

JD.com: In 2018, Chinese e-commerce giant JD.com invested more than \$71 million into Allianz China for a 30 percent stake.⁶⁷ Allianz China received approval in late October from the China Banking and Insurance Regulatory Commission to change its name to Allianz JD General Insurance.⁶⁸

Ping An: In 2015, Bought by Many partnered with Ping An to leverage social data to personalize travel insurance.⁶⁹

Tencent: In 2017, Tencent launched its insurance subsidiary, WeSure, with the capability of targeting its services to the more than 1 billion users of Tencent's WeChat platform. The subsidiary also signed a strategic partnership agreement with MetLife in early 2018.⁷⁰

Also, Tencent joined together with Hillhouse Capital Group

⁶² "Allianz, Baidu and Hillhouse Agree Joint Venture to Create Innovative Digital Insurance Solutions in China." News release, November 26, 2016. Allianz. https://www.allianz.com/en/press/news/business/insurance/151126_allianz-baidu-and-hillhouse-agree-joint-venture/.

⁶³ Formerly Google's Self-Driving Car Project.

⁶⁴ "Ladder Google Home = Life Insurance Designed for You." Medium (blog), September 27, 2017. <https://medium.com/ladderlife/ladder-google-home-life-insurance-designed-for-you-32e4461c087f>.

⁶⁵ Sarah Perez. "Google Launches A New Tool To Sell Car Insurance To U.S Web Searchers." TechCrunch. March 2015. <https://techcrunch.com/2015/03/05/google-compare-car-insurance-us/>

⁶⁶ Ginny Marvin. "Google To Shut Down Google Compare Products In US And UK On March 23." Search Engine Land. February 22, 2016. <https://searchengineland.com/google-compare-shutting-down-us-uk-march-23-2016-242310>.

⁶⁷ Chen Liubing. "JD acquires 30% stake in Allianz Insurance for \$71m." China Daily. July 25, 2018. <http://www.chinadaily.com.cn/a/201807/25/WS5b580c2ea31031a351e900f3.html>.

⁶⁸ Liao Shumin. "JD.Com to Take 30% Stake in Allianz China, Stamp It With Its Name." Yicai Global. November 1, 2018. <https://www.yicai.com/news/jdcom-take-30-stake-allianz-china-stamp-it-its-name>.

⁶⁹ Steven Mendel. "Multi Award Winning UK Fintech Startup Bought By Many Announces China Launch." Bought By Many. July 10, 2015. <https://boughtbymany.com/news/article/fintech-startup-china-launch/>.

⁷⁰ "MetLife and WeSure Form Strategic Digital Insurance Partnership." News release, March 30, 2018. BusinessWire. <https://www.businesswire.com/news/home/20180330005101/en/MetLife-WeSure-Form-Strategic-Digital-Insurance-Partnership>.

Joint Venture / Partnerships

and Aviva in 2017 to develop an insurance joint venture in Hong Kong.⁷¹ Blue, the Hong Kong digital insurance joint venture, opened in September 2018.⁷²

SoftBank Vision Fund: In August 2018, SoftBank Vision Fund and Zhong An each invested \$100 million in An An International—a joint venture that aims to promote Zhong An insurance tech offerings across Asia.⁷³ In October, SoftBank CEO Masayoshi Son spoke to an audience of portfolio company executives on how the firm envisions the future of insurance.⁷⁴

Government Initiatives / Regulatory Approval

Amazon: Reports surfaced in mid-September 2018 that Amazon is looking to become an insurance agent in India. Amazon India is expected to begin selling life, health, and general insurance policies, according to its filing with India's Registrar of Companies. At this time, the company has yet to seek approval from India's Insurance Regulatory and Development Authority.⁷⁵

Flipkart: In 2017, India's largest e-commerce platform, Flipkart, filed for a corporate agency license with the Insurance Regulatory and Development Authority and Registrar of Companies. A few months later, the firm also filed for a nonbank financial company license and is expected to offer microlending and microinsurance products on its platform.^{76,77}

Google: In 2016, it was reported that Google was working with the government of India and industry associations to launch Bharat Saves in an effort to support financial inclusion efforts across the country. It's unclear at this time exactly how far along this initiative is.⁷⁸

Paytm: In 2015, Paytm—whose parent company is One97 Communications—became one of 11 payments companies to be licensed by the Reserve Bank of India as a "payments bank."⁷⁹ At that time, Paytm had more than 100 million wallet users.⁸⁰

⁷¹ "Aviva Plc, Hillhouse Capital Group and Tencent Holdings Ltd Receive Regulatory Approval for Digital JV." News release, February 13, 2018. Aviva. <https://www.aviva.com/newsroom/news-releases/2018/02/avivas-digital-jv-in-hong-kong-receives-approval/>.

⁷² "Digital Life Insurer Set to Disrupt Hong Kong Insurance." News release, September 12, 2018. Aviva. <https://www.aviva.com/newsroom/news-releases/2018/09/digital-life-insurer-set-to-disrupt-hong-kong-insurance/>.

⁷³ "Ke Dawei. "SoftBank, ZhongAn Announce \$200 Million Joint Venture." Caixin Global. August 28, 2018. <https://www.caixinglobal.com/2018-08-28/softbank-zhongan-announce-200-million-joint-venture-101319789.html>.

⁷⁴ Eric Auchard and Simon Jessop. "Softbank pushes link-ups as insurance strategy takes shape." October 16, 2018. <https://www.reuters.com/article/us-softbank-group-insurance/softbank-pushes-link-ups-as-insurance-strategy-takes-shape-idUSKCN1MQ1DF>.

⁷⁵ Nishant Sharma. "Amazon India Plans To Become An Insurance Agent." Bloomberg Quint. September 17, 2018. <https://www.bloombergquint.com/technology/amazon-india-plans-to-become-an-insurance-agent#gs.T2qZyAY>.

⁷⁶ Vijayakumar Pitchiah. "Flipkart to start selling insurance products in services push." VC Circle. November 24, 2017. <https://www.vccircle.com/flipkart-to-start-selling-insurance-products-in-services-push/>.

⁷⁷ Bhumika Khatri. "Flipkart Bets On Fintech, Applies For NBFC Certification To Focus On Customer Lending." Inc42. July 4, 2018. <https://inc42.com/buzz/flipkart-goes-fintech-applies-for-nbfc-certification-to-focus-on-customer-lending/>.

⁷⁸ Apple was also reportedly in talks with India's government to bring Apple Pay into the government's financial inclusion initiatives.

Government Initiatives/ Regulatory Approval

In May of 2017, Paytm Payments Bank commenced operations.⁸¹ In late 2017, One97 Communications was granted a license to sell insurance by the Insurance Regulatory Development Authority of India when, in early 2018, One97 formed two new entities: Paytm Life Insurance Corporation and Paytm General Insurance Corporation. In June 2018, the company announced that it will provide life insurance to its offline partner stores and their staff through an existing life insurance provider.⁸² It's unclear, at least at the time of this publication, if and when Paytm will launch its own life insurance and general insurance products.

M&A

Ant Financial: In 2015, Ant Financial—a subsidiary of Alibaba Group Holdings—made a \$188 million dollar strategic investment for 60 percent control over Cathay Insurance Company, a subsidiary of Taiwan-based Cathay Financial Holdings, allowing Ant Financial to offer an expanded set of insurance products to its customers.⁸³

Source: Milken Institute

Large tech platforms will continue to play a role in the insurance sector for years to come. In its first-quarter 2018 InsurTech review, Willis Towers Watson highlighted a prior study that found that 20 percent of InsurTech funding over the next several years will come from tech companies. As the review further noted, tech investors “are well versed in developing and running technology pilot programs in smaller countries in order to deploy successful solutions into large developed markets afterwards.”⁸⁴

As such, future research should examine the evolution of these pilot programs and whether the investments made by large tech platforms have ultimately paid off in terms of displacing incumbents or recharacterizing the insurance marketplace, particularly in large, developed markets.

⁷⁹ “Paytm to Lead Mobile Bank Revolution with RBI Payments Bank License.” Medium (blog), August 19, 2015. <https://blog.paytm.com/paytm-to-lead-mobile-bank-revolution-with-rbi-payments-bank-license-4a8ecda46227>.

⁸⁰ Jai Vardhan. “RBI approves payments bank license to Airtel, Paytm, Vodafone, and 8 others.” YourStory. August 19, 2015. <https://yourstory.com/2015/08/rbi-approves-payments-bank-license/>.

⁸¹ “Paytm Payments Bank Limited Commences Operations.” News release, May 23, 2017. Reserve Bank of India. https://www.rbi.org.in/scripts/FS_PressRelease.aspx?prid=40528&fn=9.

⁸² Meha Agarwal. “Paytm To Provide Life Insurance Cover To Offline Partner Stores.” Inc42. June 25, 2018. <https://inc42.com/buzz/paytm-to-provide-life-insurance-cover-to-offline-partner-stores/>.

⁸³ Gillian Wong. “Alibaba Affiliate Invests in China Insurance Unit of Cathay Financial.” The Wall Street Journal. September 14, 2015. <https://www.wsj.com/articles/alibaba-affiliate-invests-in-china-insurance-unit-of-cathay-financial-1442233661>.

⁸⁴ “Quarterly InsurTech Briefing, Q1 2018.” Willis Towers Watson. May 2018. <https://www.willistowerswatson.com/-/media/WTW/PDF/Insights/2018/05/quarterly-insurtech-briefing-q1-2018.pdf>.

Is InsurTech an answer to addressing financial inclusion?

Given all the potential that InsurTech has in harnessing data, providing more efficient and expedient insurance processes, and providing more tailored products with flexible terms for an agile population, there is a unique opportunity for tech-driven insurance platforms to open up insurance markets to the masses.

Earlier this year, the World Bank published its Global Findex Database for 2017 which found that 1.7 billion adults around the world remain unbanked. That said, more than two-thirds of the unbanked have a mobile phone. In a prior report, we focused on the value of remittance-linked insurance products in driving greater inclusion and access to capital. That report also found that uptake of such products is few and far between when compared to remittance-linked savings and lending products.⁸⁵

Even so, several InsurTech platforms are leveraging the mobile device to drive inclusion into previously financially underserved areas. For instance, BIMA has established a global footprint in 15 countries and, through partnerships with local telecoms providers and financial institutions, has been able to offer mobile insurance products with rapid results. In fact, since BIMA launched its first operation in Ghana back in 2010, the company has reached more than 30 million customers, sold more than 33 million policies, and has the largest microinsurance agent force globally.

BIMA may be the more well-known provider, but they are not the only ones. MicroEnsure is another well-known actor in this space, often operating as the lead partner with local brands and insurance companies to provide insurance to emerging customers. Since its inception, MicroEnsure has registered more than 56 million customers on its platform. Together, the two microinsurance providers combine to represent one-third of the 120 mobile insurance services operating in one or more emerging markets, according to GSMA.⁸⁶

⁸⁵ Ziyi Huang, Aron Betru, and Jackson Mueller. "Leaving Transferred Money on the Table: Will Remittance-Linked Financial Products Add Value to Development Financing?" Milken Institute. March 6, 2017. <https://www.milkeninstitute.org/publications/view/849>.

⁸⁶ "2015 Mobile Insurance, Savings & Credit Report." GSMA. May 23, 2016. <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/08/Mobile-Insurance-Savings-Credit-Report-2015.pdf>.

ANALYSIS

The success of these platforms relies on the strength of partnerships among local telecom providers, banks, microfinance institutions, other partnerships, and a robust agent workforce in order to effectively deliver mobile insurance to those in need. How they operate is a bit different than the vast majority of InsurTech platforms profiled in the landscape, which begs the question as to whether these InsurTech platforms are willing, capable of, or interested in, moving the needle forward in addressing the financially underserved in developing and/or developed markets.

Future research should analyze how these firms, particularly those who have financial inclusion embedded in their vision, are tracking and quantifying these results. This could help us determine to what extent InsurTech platforms are offering more customizable, cost-effective solutions that are able to address persistent challenges related to financial inclusion.

CONCLUSION

We are still very much in the early stages of the innovation cycle in the insurance sector, yet the jury is still undecided on whether we are likely to see the purported benefits from InsurTech reach end users in the form of more responsible, cost-effective products and services.

In reviewing more than 100 InsurTech platforms profiled in this report, it is not uncommon to hear from InsurTech platforms about the number and value of policies issued, claims addressed, the amount of venture capital funding received, the enhancement of the overall speed of certain processes, the data analyzed and deployed, and the number of customers utilizing said service or platform.

As stated previously, most of the products and services offered by the InsurTech platforms profiled in the landscape merely provide for greater efficiencies across the insurance pipeline. But does greater efficiency necessarily lead to greater inclusion? Especially for those with no or limited internet access or who have never purchased insurance before? More importantly, while a number of InsurTech platforms profiled in the landscape are able to reduce search costs for users shopping around for an insurance plan, are the costs of the insurance product itself ultimately in decline as well?

If the technological gains and efficiencies from harnessing technological advancements are simply padding a firm's bottom line rather than resulting in better pricing and reduced costs to the end user, then should InsurTech be considered a solution to the persistent and ongoing challenge of reducing the cost of finance for the end user?⁸⁷

What is often left unmentioned is whether these numbers translate into a more cost-efficient and inclusive insurance ecosystem.

⁸⁷ Research by Thomas Philippon, professor at New York University Stern School of Business, found that the unit cost of financial intermediation in the U.S. has largely remained around two percent over the past 130 years, with similar findings from studies conducted in other countries. In short, "improvements in information technologies have not been passed through to the end users of financial services." The research can be accessed here: <http://pages.stern.nyu.edu/~tphilipp/papers/FinTech.pdf>.

CONCLUSION

As such, further research in the InsurTech space, particularly as it regards financial inclusion, should seek to address the following questions that the Milken Institute has compiled based on our analysis from InsurTech firms profiled for the purposes of this report:

⁸⁸ Orbitz is a travel fare aggregator website and search engine. The platform's interface and how it works resembles what we are seeing in the InsurTech space, particularly among platforms operating as brokers.

- Does the cost savings generated by a more efficient insurance process ultimately end up lowering premiums or simply add to the bottom line for an InsurTech platform or company utilizing an InsurTech platform's services?
- Are cost-effective plans the right plans for customers? How do firms find that balance?
- Are customers that are onboarded or utilize the platform "new" in the sense that they've never purchased an insurance policy before?
- Do customers actually have too much insurance already?
- Does the "Orbitzification" of insurance via comparison websites ultimately lead to greater price competition among insurers?⁸⁸
- Are the platforms themselves making a conscious effort to attract more customers situated beyond broadband coverage availability?

It is unclear whether InsurTech can ultimately address some, if not all, of the above-mentioned questions. While further analysis on the sector is certainly needed, we are hopeful that the information provided in this white paper and accompanying landscape will help to generate more informative discussions and debates among policymakers and regulators about who some of the actors are in the InsurTech space, what they do, and the overall value of (and need for) innovation in the insurance sector.

APPENDIX

INSURTECH FIRMS THAT HAVE ENTERED THE FCA'S REGULATORY SANDBOX

Firm	Description	Cohort
Blink	An insurance product with an automated claims process that allows travelers to instantly book a new ticket on their mobile device in the event of a flight cancellation.	1
AssetVault	Enables consumers to catalogue all of their assets in a secure online register and better understand their total value. The firm also works with insurance providers to protect the consumer and their assets with appropriate insurance products.	2
Canlon	An insurance policy that saves a portion of the net premium to reimburse policyholders if a claim is not made	2
FloodFlash	Provides event-based flood insurance, even in high-risk areas. Customers receive a pre-agreed settlement as soon as the company's sensor detects that flood waters have exceeded a certain depth.	2
Laka	An alternative insurance business model where the consumer makes payments at the end of the month, based on the exact cost of claims settled during that period.	2
Nimbla	Provides flexible trade credit insurance and credit and invoice management tools to U.K. SMEs, via an online platform	2
YouToggle	An app that uses mobile phone telematics to monitor a user's driving and create an individual score that can then be shared with a car insurer to obtain a discount. Driving information captured by the app could also be used as evidence in the event of motor accident.	2

APPENDIX

Firm	Description	Cohort
ZipZap	A cross-border money remittance platform that chooses the most efficient means for a payment to reach its destination, including via digital currencies.	2
Sherpa Management Services	Insurance solution where members set up one account to manage multiple insurance risks. Offers dynamic products which provide the ability to increase and decrease the sum assured as needs change.	3
Wrisk	Usage-based contents insurance product with innovative risk-scoring method.	3
Etherisc	Uses smart contracts on a blockchain to provide fully automated decentralized flight insurance.	4
Meet Mia	Chatbot on Facebook Messenger that allows customers to buy and manage travel insurance. Policies are written in plain English and customers can ask the chatbot what they are covered for. Group discounts and automated claims handling will also be available.	4
Universal Tokens	Service that leverages blockchain technology in the distribution of insurance products to increase trust and improve user experience.	4

SELECT GLOBAL REGULATORY AND POLICY DEVELOPMENTS RELATED TO INSURTECH

Country	InsurTech Related Developments
Australia	<p>October 2017: InsurTech Australia launched as a stand-alone division of FinTech Australia. The group will focus on issues facing InsurTech startups, including regulatory challenges.⁸⁹ Since its launch, InsurTech Australia has called on the Australian Securities and Investments Commission (ASIC) to expand its regulatory sandbox to make it more palatable for InsurTech platforms to participate. In May 2018, it was reported that the group has given up hope in ASIC making changes to its sandbox.⁹⁰</p> <p>December 2016: ASIC released the world's first licensing exemption for FinTech businesses, allowing eligible FinTechs to test certain services without the need for a financial services credit license.⁹¹ Eligible products include general insurance for personal property and home contents with a maximum of \$50,000 insured.⁹²</p>
Bermuda	<p>July 2018: The government announced a new immigration policy for FinTech firms—the FinTech Business Work Permit Policy—which would make it easier for FinTech firms to set up shop in the country.⁹³ Meanwhile, Appleby senior associate Matthew Carr explains the importance of upcoming amendments to Bermuda's Insurance Act of 1978 and how that will help foster and support an InsurTech ecosystem.⁹⁵ The Insurance Amendment Act of 2018 came into effect on July 23, 2018. Separately, the Companies and Limited Liability Company (Initial Coin Offering) Amendment Act 2018 became operative on July 9. The Companies and Limited Liability Company (Initial Coin Offering) Regulations 2018 and ICO Legislation were published on July 10.^{96,97,98} Lastly, the House of Assembly passed the Restricted Banks Act, with the bill now moving to the Senate for ratification.⁹⁹</p> <p>June 2018: Premier David Burt announced the country will have an InsurTech regulatory sandbox regime in place by the end of July.¹⁰⁰ Separately, Premier David Burt gives a statement on amending the Banks and Deposit Companies Act 1999. "To ensure that the Government is able to effectively execute on its FinTech initiatives, as well as encourage responsible FinTech innovation that provides fair access to financial services and fair treatment of consumers, the Banks and Deposit Companies Act</p>

⁸⁹ "New Industry Association Dedicated to Foster Startups and Innovation in Australia's Insurance Sector." News release, October 23, 2017. FinTech Australia. <https://fintechaustralia.org.au/new-industry-association-dedicated-to-foster-startups-and-innovation-in-australias-insurance-sector/>.

⁹⁰ Alice Uribe. "Insurtech lobby gives up on ASIC 'sandbox'." The Australian Financial Review. May 21, 2018. <https://www.afr.com/business/banking-and-finance/financial-services/insurtech-lobby-gives-up-on-asic-sandbox-20180521-h10cch>.

⁹¹ "16-440MR ASIC Releases World-first Licensing Exemption for Fintech Businesses." News release. Australian Securities & Investments Commission. Accessed December 15, 2016. <https://asic.gov.au/about-asic/news-centre/find-a-media-release/2016-releases/16-440mr-asic-releases-world-first-licensing-exemption-for-fintech-businesses/>.

⁹² Licensing exemption for fintech testing. Australian Securities & Investments Commission. <https://download.asic.gov.au/media/4112096/licensing-exemption-for-fintech-testing-infographic.pdf>.

⁹³ FinTech Business Work Permit. Government of Bermuda. July 6, 2018. https://www.gov.bm/sites/default/files/FinTech-Business-Work-Permit-Policy_20170706.pdf.

⁹⁴ Matthew Carr. "Bermuda's innovative insurer sandbox." The Royal Gazette. July 26, 2018. <http://www.royalgazette.com/business/article/20180726/bermudas-innovative-insurer-sandbox>

⁹⁵ Chris Garrod and William Cooper. "Bermuda Creates Legislative Framework to Promote InsurTech Innovation." Conyers Dill & Pearman. August 2018. https://www.conyersdill.com/publication-files/2018_08_Alert_BDA_Bermuda_Creates_Legislative_Framework_to_Promote_Insurtech_Innovation.pdf.

⁹⁶ Jeremy Leese. "ICO Legislation Takes Effect and ICO Regulations Published." Bermuda Law (blog). July 13, 2018. <http://bermudalawblog.bm/2018/07/ico-legislation-takes-effect-and-ico-regulations-published/>.

⁹⁷ Steven Rees Davies and Jerome Wilson, et al. "A Framework for Initial Coin Offerings in Bermuda." Appleby. July 13, 2018. <https://www.applebyglobal.com/insights/insights-2018/a-framework-for-initial-coin-offerings-in-bermuda.aspx>.

⁹⁸ BR 65/2018: Companies (Initial Coin Offering) Regulations 2018. Government of Bermuda. 2018. [http://www.bermudalaws.bm/laws/Annual%20Laws/2018/Statutory%20Instruments/Companies%20\(Initial%20Coin%20Offering\)%20Regulations%202018.pdf](http://www.bermudalaws.bm/laws/Annual%20Laws/2018/Statutory%20Instruments/Companies%20(Initial%20Coin%20Offering)%20Regulations%202018.pdf).

<p>Bermuda</p>	<p>1999 will be amended to allow for a new class of bank that will provide banking services to Bermuda based FinTech companies.¹⁰¹ Separately, the government recently signed a Memorandum of Understanding (MOU) with South Korea to drive the development of FinTech.¹⁰²</p> <p>April 2018: The Bermuda Monetary Authority (BMA) also publishes a consultation paper covering an insurance regulatory sandbox.¹⁰³ Separately, the BMA publishes a consultation paper on the regulation of virtual currency business. Within the document, the BMA includes discussion on a regulatory sandbox. "It is intended that a Class M license will be an intermediate license type which is designed to facilitate a regulatory sandbox for novelty start-up businesses, particularly those businesses desirous of testing new products and or services (proof of concept)."¹⁰⁴</p>
<p>Canada</p>	<p>August 2018: The Insurance Bureau of Canada (IBC) is looking to implement a regulatory sandbox for the P&C insurance industry.¹⁰⁵ The IBC is also calling for the creation and regulation of P&C group insurance in Quebec.¹⁰⁶</p>
<p>China</p>	<p>2018: The Chinese government merged its banking and insurance regulatory commissions and created the China Banking and Insurance regulatory Commission (CBIRC). The newly formed regulator is tasked with overseeing the \$42 trillion banking and insurance sectors.¹⁰⁷</p>
<p>European Union</p>	<p>July 2018: The European Insurance and Occupational Pensions Authority (EIOPA) released a survey focused, in particular, on licensing requirements and barriers to InsurTech and InsurTech facilitation.¹⁰⁸</p> <p>June 2018: The EU FinTech Lab, which was announced in the European Commission's FinTech Action Plan, formerly met for the first time. Discussion focused on outsourcing cloud in the banking and insurance sectors.¹⁰⁹</p> <p>April 2018: EIOPA released the mandate of its InsurTech Task Force.¹¹⁰</p> <p>March 2018: The European Commission releases its FinTech Action Plan to create a more competitive and innovative European financial sector.¹¹¹</p> <p>June 2017: In response to the European Commission's public consultation on FinTech, the European Banking Authority found</p>

⁹⁹ Huhnsik Chung and Nicholas Secara. "New Bermuda Legislation Will Create a Novel Class of Bank to Service Fintech Companies." Bitcoin Magazine. August 22, 2018. <https://www.nasdaq.com/article/op-ed-new-bermuda-legislation-will-create-a-novel-class-of-bank-to-service-fintech-companies-cm1011607>.

¹⁰⁰ Peter Hastie. "Bermuda regulatory sandbox in place by summer: Premier Burt." Re-insurance.com. June 7, 2018. <https://www.re-insurance.com/news/bermuda-regulatory-sandbox-in-place-by-summer-premier-burt/1126.article>

¹⁰¹ David Burt. "Amending the Banks and Deposit Companies Act 1999." Speech, Bermuda, June 29, 2018. Available at: <https://www.gov.bm/articles/amending-banks-and-deposit-companies-act-1999>.

¹⁰² "Premier Unveils New Fintech Opportunity," News release, June 8, 2018. Government of Bermuda. <https://www.gov.bm/articles/premier-unveils-new-fintech-opportunity>.

¹⁰³ Consultation Paper: Insurance Regulatory Sandbox. Bermuda Monetary Authority. April 2018. <http://www.bma.bm/document-centre/consultation-papers/INSURANCE%20Insurance%20Regulatory%20Sandbox%20Consultation%20Paper%20with%20Draft%20Bill.pdf>.

¹⁰⁴ Consultation Paper: Regulation of Virtual Currency Business. Bermuda Monetary Authority. April 2018. <http://www.royalgazette.com/assets/pdf/RG384038411.pdf>.

¹⁰⁵ Jason Contant. "Why Canadian insurers want to play in a "regulatory sandbox"." Canadian Underwriter. August 27, 2018. <https://www.canadianunderwriter.ca/insurance/canadian-insurers-want-play-regulatory-sandbox-1004136210/>.

¹⁰⁶ Jason Contant. "Why insurers want P&C group insurance in Quebec." Canadian Underwriter. August 24, 2018. <https://www.canadianunderwriter.ca/insurance/insurers-want-group-insurance-quebec-1004136163/>.

¹⁰⁷ "China Names Guo to Head New Insurance, Banking Regulatory Commission." Insurance Journal. March 21, 2018. <https://www.insurancejournal.com/news/international/2018/03/21/483992.htm>.

¹⁰⁸ EIOPA Survey: Licensing Barriers to InsurTech Facilitation. European Insurance and Occupational Pensions Authority. <https://eiopa.europa.eu/Pages/Surveys/EIOPAs-InsurTech-Insight-Survey.aspx>.

¹⁰⁹ "First meeting of the EU FinTech Lab." European Commission. June 20, 2018. https://ec.europa.eu/info/publications/180620-eu-fintech-lab-meeting_en

European Union

“competent authorities are using different approaches in respect of ‘sandboxes,’ innovation hubs, and similar regimes. This could give rise to the risk of regulatory arbitrage and level-playing-field issues and present risks to consumers ... and undermine the achievement of other objectives, for instance, financial stability.”¹¹²

December 2016: The Joint Committee of the European Supervisory Authorities (composed of the European Banking Authority, the European Securities and Markets Authority, and the European Insurance and Occupational Pensions Authority) released a discussion paper on the use of big data by financial institutions.¹¹⁶ A final report was published in March 2018.¹¹⁷

October 2016: Aegon, Allianz, Munich Re, Swiss Re, and Zurich announce the launch of the Blockchain Insurance Industry Initiative, or B3i, which aims to explore the potential of distributed ledger technologies in the insurance sector.¹¹³ In September 2017, the initiative successfully launched a working market testing prototype focused on property catastrophe (re)insurance contracts.¹¹⁴ In October 2017, the initiative had more than 20 members.¹¹⁵

December 2015: The Joint Committee of the European Supervisory Authorities released a discussion paper on automation in financial advice.¹¹⁸ A final report was published in December 2016.¹¹⁹

France

March 2018: The French Prudential Supervision and Resolution Authority conducted a survey on the challenges of the digital revolution in the French banking and insurance sectors.¹²⁰

Hong Kong

September 2017: The Insurance Authority launches its InsurTech Sandbox. The sandbox “helps authorized insurers experiment with new InsurTech and other technology applications without the need to achieve full compliance with the IA’s usual regulatory requirements. Under the Sandbox initiative, pilot trials of InsurTech applications will be conducted in a controlled environment with sufficient safeguards for policy holders.

¹¹⁰ EIOPA-BoS-17/258. InsurTech Task Force. European Insurance and Occupational Pensions Authority. April 13, 2018. <https://eiopa.europa.eu/Publications/Administrative/InsuTech%20Task%20Force%20Mandate%20-%20BoS.pdf>

¹¹¹ “FinTech: Commission Takes Action for a More Competitive and Innovative Financial Market.” News release, March 8, 2018. European Commission. http://europa.eu/rapid/press-release_IP-18-1403_en.htm?locale=en.

¹¹² EBA response to the EC Consultation Document on FinTech: a more competitive and innovative European Financial Sector. European Banking Authority. <http://www.eba.europa.eu/documents/10180/187341/EBA+response+to+the+European+Commission+Consultation+Document+on+FinTech++June+2017.pdf>.

¹¹³ “Insurers and Reinsurers Launch Blockchain Initiative B3i.” News release, October 19, 2016. Allianz. https://www.allianz.com/en_GB/press/news/commitment/sponsorship/161018-insurers-and-reinsurers-launch-blockchain-initiative-b3i.html.

¹¹⁴ “Willis Re Supports Blockchain Insurance Industry Initiative B3i.” News release, October 2, 2017. Willis Towers Watson. <https://www.willistowerswatson.com/en/press/2017/10/Willis-Re-supports-blockchain-insurance-industry-initiative-B3i>.

¹¹⁵ “B3i Expands with New Members Joining Its Prototype Market Testing Phase.” News release, October 2, 2017. B3i. <https://b3i.tech/single-news-reader/press-release-3.html>.

¹¹⁶ Joint Committee Discussion Paper on the Use of Big Data by Financial Institutions. European Securities and Markets Authority. December 19, 2016. <https://www.esma.europa.eu/press-news/consultations/joint-committee-discussion-paper-use-big-data-financial-institutions>.

¹¹⁷ “ESAS Weigh Benefits and Risks of Big Data.” News release, March 15, 2018. European Securities and Markets Authority. <https://www.esma.europa.eu/press-news/esma-news/esas-weigh-benefits-and-risks-big-data>.

¹¹⁸ Discussion Paper on Automation in Financial Advice. European Securities and Markets Authority. December 4, 2015. <https://www.esma.europa.eu/document/discussion-paper-automation-in-financial-advice>

¹¹⁹ “European Supervisory Authorities Publish Conclusions on Automation in Financial Advice.” News release, December 16, 2016. European Supervisory Authorities. <https://esas-joint-committee.europa.eu/Pages/News/European-Supervisory-Authorities-publish-conclusions-on-automation-in-financial-advice.aspx>.

APPENDIX

Hong Kong Insurers can gain real market data and collect user feedback before their formal launch in the market.” The Insurance Authority’s FinTech Liaison Team is renamed to InsurTech Facilitation Team.¹²¹

India **October 2018:** The Insurance Regulatory and Development Authority (IRDAI) proposes new guidelines for linked and nonlinked life insurance policies.¹²² Meanwhile, India’s Union Cabinet, chaired by Prime Minister Shri Narendra, approves an MOU with Singapore to establish a joint working group on FinTech. The working group will “excel in the fields of Development of Application Programming Interfaces (APIs), Regulatory Sandbox, Security in payment and digital cash flow, integration of RuPay-Network for Electronic Transfers (NETS), UPI-FAST payment link, AADHAR Stack and e-KYC in ASEAN region and cooperation on regulations, solutions for financial markets and insurance sector and sand box models.”¹²³

September 2018: The IRDAI establishes a committee on a regulatory sandbox for India’s insurance industry. Among the terms of reference of the committee, drafting a consultation paper on regulatory sandbox in the insurance sector.¹²⁴

August 2018: The IRDAI allows insurance companies to offer three-year, third-party coverage for two-wheelers. Previously, all motor insurance providers offered one-year, third-party coverage with annual renewal.¹²⁵

March 2018: The government constituted a Steering Committee on FinTech composed of several government departments, with the Department of Economic Affairs leading the group.¹²⁶ The steering committee will analyze the current regulatory regime and its impact on FinTech, and develop regulatory interventions, including a regulatory sandbox.

November 2017: The Inter-Regulatory Working Group on FinTech and Digital Banking released its report covering regulatory issues related to FinTech and digital banking.¹²⁷

¹²⁰ Survey on the digital revolution in the French insurance sector. No. 87. Banque de France. March 2018. https://acpr.banque-france.fr/sites/default/files/medias/documents/195ta18_as_87_etude_revolution_numerique_secteur_assurance_dw_english_so.pdf

¹²¹ “Insurance Authority Introduces New Initiatives to Facilitate Insurtech in Hong Kong.” News release, September 29, 2017. Hong Kong Insurance Authority. https://www.ia.org.hk/en/infocenter/press_releases/insurance_authority_introduces_new_initiatives_to_facilitate_insurtech_in_hong_kong.html.

¹²² Sanjeev Sinha. “IRDAI proposes new guidelines for life insurance policies; Here’s how they will benefit buyers.” The Financial Express. November 3, 2018. <https://www.financialexpress.com/money/insurance/irdai-proposes-new-guidelines-for-life-insurance-policies-heres-how-it-will-benefit-buyers/1370222/>.

¹²³ “Cabinet Approves MoU between India and Singapore on Setting up of a Joint Working Group on FinTech.” News release, October 24, 2018. Government of India. http://www.pmindia.gov.in/en/news_updates/cabinet-approves-mou-between-india-and-singapore-on-setting-up-of-a-joint-working-group-on-fintech/.

¹²⁴ Committee on Regulatory Sandbox in insurance space in India. Insurance Regulatory and Development Authority of India. September 18, 2018. <https://www.irdai.gov.in/ADMINCMS/cms/Uploadedfiles/RegulatorySandbox.pdf>.

¹²⁵ “IRDA Gives Its Nod to 3-yr Third Party Insurance Cover for Two-wheelers.” News release, August 2018. Reliance General Insurance. <https://www.reliancegeneral.co.in/Insurance/News-and-Updates/IRDA-gives-its-nod-to-3-yr-third-party-insurance-cover-for-two-wheelers.aspx>.

¹²⁶ “The Government Constitutes a Steering Committee on Fintech Related Issues to Consider Various Issues Relating to Development of Fintech Space in India with a View to Make Fintech Related Regulations More Flexible and Generate Enhanced Entrepreneurship in an Area Where India Has Distinctive Comparative Strengths Vis-à-vis Other Emerging Economies; To Focus on How Fintech Can Be Leveraged to Enhance Financial Inclusion of MSMEs.” News release, March 5, 2018. Government of India. <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1522473>.

<p>India</p>	<p>The recommendations include the adoption of digital channels to replace manual time-consuming processes to empower customers and/or workforce in the insurance sector; supporting the development of innovation labs, including within insurance companies; enabling collaboration between insurance companies and InsurTech entities to realign regulation supervision in a changing environment; developing an appropriate framework for a regulatory sandbox or innovation hub; and the development of a self-regulatory body for FinTech firms.</p> <p>March 2017: The IRDAI issues Insurance Web Aggregator Regulations.¹²⁸</p> <p>September 2016: It's reported that FinTech companies, banks, and insurance companies are coming together under the umbrella organization—Internet and Mobile Association of India—to lobby the Reserve Bank of India and other regulators to enable the use of technological innovations in providing financial services and products to the end user.¹²⁹</p> <p>January 2014: InsurTech firms react to web insurance aggregator regulations. "Under the earlier regulations, it was permissible for any website to fetch rates from other licensed intermediaries and to thereafter deal with them in a manner that was outside the purview of the regulator. This route has now been effectively plugged as the new regulations make it mandatory for any website dealing with insurance products to be licensed in its own right—either as an insurance broker or as a web aggregator. This change might induce a better regulated and structured insurance environment which will lead to better practices and will benefit for the public at large in the longer term."¹³⁰</p>
<p>International Organizations</p>	<p>February 2017: International Association of Insurance Supervisors releases a white paper titled, FinTech Developments in the Insurance Industry.¹³¹</p>
<p>Israel</p>	<p>February 2018: Israel's Ministry of Finance relaxes requirements to obtain an insurance license in the country.¹³²</p>
<p>New Zealand</p>	<p>October 2017: The Financial Markets Authority granted an exemption to enable a broader range of products that robo-advisers can provide to users, including mortgages and personal insurance beginning in 2018.¹³³</p>

¹²⁷ "Report of the Inter-Regulatory Working Group on FinTech and Digital Banking." News release, February 8, 2018. Reserve Bank of India. https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=43097.

¹²⁸ Guidelines on Insurance e-commerce. Insurance Regulatory and Development Authority of India. March 9, 2017. <https://www.irdai.gov.in/ADMINCMS/cms/Uploadedfiles/Guidelines%20on%20Insurance%20e-commerce.pdf>.

¹²⁹ Pratik Bhakta. Guidelines on Insurance e-commerce. Insurance Regulatory and Development Authority of India. March 9, 2017. <https://www.irdai.gov.in/ADMINCMS/cms/Uploadedfiles/Guidelines%20on%20Insurance%20e-commerce.pdf>.

¹³⁰ Nikhil Pahwa. "Policybazaar, EasyPolicy & MyInsuranceClub React to India's Web Insurance Aggregator Regulation." MEDIANAMA. January 17, 2014. <https://www.medianama.com/2014/01/223-web-insurance-aggregator-india-response/>.

¹³¹ Report on FinTech Developments in the Insurance Industry. International Association of Insurance Supervisors. March 13, 2017. <https://www.iaisweb.org/page/supervisory-material/other-supervisory-papers-and-reports/file/65440/report-on-fintech-developments-in-the-insurance-industry>.

¹³² Guy Shmueli. "Ministry of Finance eases requirements to obtain insurer's licence in Israel." International Law Office. February 20, 2018. https://www.internationalawoffice.com/Newsletters/Insurance/Israel/Levitan-Sharon-Co/Ministry-of-Finance-eases-requirements-to-obtain-insurers-licence-in-Israel?utm_source=ILO+Newsletter&utm_medium=email&utm_content=Newsletter+2018-02-20&utm_campaign=Insurance+Newsletter.

¹³³ "FMA Allows Personalised Robo-advice; Applications Open Early 2018." News release, October 18, 2017. Financial Markets Authority. <https://fma.govt.nz/news-and-resources/media-releases/fma-allows-personalised-robot-advice-applications-open-early-2018/>.

Portugal

September 2018: The country's first FinTech innovation hub, The Portugal FinLab, is launched. The Banco de Portugal (BdP), the Securities Market Commission (CMVM) and the Insurance and Pension Funds Supervision Authority (ASF) joined Portugal Fintech to launch FinLab.¹³⁴ The group formerly joined together back in July 2018.¹³⁵

Singapore

October 2018: India's Union Cabinet, chaired by Prime Minister Shri Narendra, approves an MOU with Singapore to establish a joint working group on FinTech. The working group will "excel in the fields of Development of Application Programming Interfaces (APIs), Regulatory Sandbox, Security in payment and digital cash flow, integration of RuPay-Network for Electronic Transfers (NETS), UPI-FAST payment link, AADHAR Stack and e-KYC in ASEAN region and cooperation on regulations, solutions for financial markets and insurance sector and sandbox models."¹³⁶

August 2017: InsurTech startup PolicyPal becomes the first firm to graduate from the Monetary Authority of Singapore (MAS) regulatory sandbox.¹³⁷

March 2017: InsurTech startup PolicyPal receives approval from MAS to enter its regulatory sandbox. PolicyPal is the first firm to enter the sandbox.¹³⁸

February 2017: MAS, the U.K. Department for International Trade (formerly U.K. Trade & Investment), and 15 insurance industry representatives, signed a Statement of Intent committing to promote digital innovation in the Asian insurance sector. Among the key initiatives to drive technological innovation in the insurance sector: introduce the ASEAN InsurTech LaunchPad led by InsurTechAsia, which will allow startups to run proof-of-concepts with Singapore-based insurers.¹³⁹

July 2015: The British Government, MAS, Lloyds, and Aviva signed a Statement of Intent to build a greater understanding of risk exposure in Asia and support the growth of insurance markets across the region.¹⁴⁰

¹³⁴ Margarida Lima Rego and Nuno Sobreira, "Portugal Finlab - innovation hub for insurtech." Morais Leitão, Galvão Teles, Soares da Silva & Associados. November 6, 2018. <https://www.internationallawoffice.com/Newsletters/Insurance/Portugal/Morais-Leito-Galvo-Teles-Soares-da-Silva-Associados/Portugal-Finlab-innovation-hub-for-insurtech>

¹³⁵ Antony Peyton. "Portugal unveils fintech innovation lab." Banking Technology Magazine. July 31, 2018. <https://www.bankingtech.com/2018/07/portugal-unveils-fintech-innovation-lab/>

¹³⁶ "Cabinet Approves MoU between India and Singapore on Setting up of a Joint Working Group on FinTech." News release, October 24, 2018. Government of India. http://www.pmindia.gov.in/en/news_updates/cabinet-approves-mou-between-india-and-singapore-on-setting-up-of-a-joint-working-group-on-fintech/.

¹³⁷ Yasmine Yahya. "Insurance start-up PolicyPal graduates from MAS fintech regulatory sandbox." The Straights Times. August 29, 2017. <https://www.straitstimes.com/business/companies-markets/insurance-start-up-policypal-graduates-from-mas-fintech-regulatory>

¹³⁸ "First Startup to Receive Approval from MAS to Enter FinTech Regulatory Sandbox." PolicyPal (blog), March 2, 2017. <https://blog.policypal.com/blog/fintech/first-startup-to-receive-approval-from-mas-to-enter-fintech-regulatory-sandbox-%F0%9F%98%86/>.

¹³⁹ "MAS, Insurers, InsurTechAsia and British Government to Boost InsurTech In Singapore and ASEAN Region." News release, February 22, 2017. InsurTech Asia Association. <https://insurtechasia.org/mas-insurers-insurtechasia-and-british-government-to-boost-insurtech-in-singapore-and-asean-region/>.

¹⁴⁰ "Official Visit of the Right Honourable David Cameron, Prime Minister of the United Kingdom to Singapore, 28 to 29 July 2015." News release, July 28, 2015. Ministry of Foreign Affairs. https://www.mfa.gov.sg/content/mfa/overseasmission/geneva/speeches_press_statements_and_other_highlights/2015/201507/press_201507280.html.

APPENDIX

Spain

July 2018: Spain's financial services regulator is currently drafting regulation that would implement a regulatory sandbox in the country. Hogan Lovells and the Spanish FinTech and InsurTech Association worked with the regulator to establish the sandbox.¹⁴¹ The sandbox is modeled after the U.K. FCA's sandbox, supposedly.

Thailand

August 2018: The Secretary General of the Insurance Regulatory Commission, Dr. Suttiphol Taveechai, gave remarks at a seminar titled, Insurance Regulatory Sandbox - Opportunities for Insurance Business.¹⁴²

May 2017: The Office of the Insurance Commission announces guidelines for participation in the insurance regulatory sandbox.¹⁴³

March 2017: The Office of the Insurance Commission publishes a consultation on the development of an insurance regulatory sandbox.¹⁴⁴

United Arab Emirates

September 2018: The second cohort of firms enters the FinTech Hive@DIFC accelerator program, with an emphasis on RegTech and InsurTech. Launch of the first FinTech Hive@DIFC program with Startupbootcamp will run from January 2019.¹⁴⁵

June 2018: Dubai International Financial Centre (DIFC) partners with Startupbootcamp to develop multiple programs for early-stage startups in FinTech, InsurTech, and RegTech.¹⁴⁶

April 2018: The FinTech Hive—the first FinTech accelerator in the region—announced an expansion to its upcoming program which will include insurance, among other themes.¹⁴⁷

March 2018: The DIFC announced an increased commitment to FinTech in 2018, including the launch of two new programs focused on InsurTech and RegTech, in addition to the existing FinTech Hive accelerator at the DIFC.^{148,149}

¹⁴¹ Jaime Bofill. "Spain: Regulatory Sandbox to be launched shortly." Hogan Lovells. July 25, 2018. <https://hoganlovells.com/en/blogs/fision/spain-regulatory-sandbox-to-be-launched-shortly>.

¹⁴² Suttiphol Taveechai. "Insurance Regulatory Sandbox - Opportunities for Insurance Business." Speech, Center of InsurTech: Center of Co-Creation, Thailand, August 28, 2018. <http://www.oic.or.th/en/consumer/news/releases/88766>

¹⁴³ "Announcement of the Office of Insurance Regulatory Commission on Guidelines for Participating in Insurance Regulatory Sandbox." News release, May 24, 2560. Office of Insurance Commission. <http://www.oic.or.th/en/consumer/news/announcements/87010>

¹⁴⁴ "Let's Hear about the Business Sector. Guidelines for Participating in Innovative Technology Testing Projects Insurance Regulatory Sandbox." News release, March 15, 2560. Office of Insurance Commission. <http://www.oic.or.th/en/consumer/news/announcements/86501>.

¹⁴⁵ "FinTech Hive Welcomes 22 Innovative Startups for Its 2018 Accelerator Programme." News release, September 4, 2018. FinTech Hive. <https://fintechhive.difc.ae/news-events/fintech-hive-welcomes-22-innovative-startups-its-2018-accelerator-programme/>.

¹⁴⁶ "DIFC to Expand Its FinTech Offering in Partnership with Startupbootcamp." News release, June 19, 2018. Dubai International Financial Centre. <https://www.difc.ae/newsroom/news/difc-expand-its-fintech-offering-partnership-startupbootcamp/>.

¹⁴⁷ "FinTech Hive at DIFC Broadens 2018 Programme, Expands International Outreach." News release, April 22, 2018. Dubai International Financial Centre. <https://www.difc.ae/newsroom/news/fintech-hive-difc-broadens-2018-programme-expands-international-outreach/>.

¹⁴⁸ "DIFC Achieves Record Growth in 2017 as MEASA's Leading Financial Hub." News release, March 5, 2018. Dubai International Financial Centre. <https://www.difc.ae/newsroom/news/difc-achieves-record-growth-2017-measas-leading-financial-hub/>.

¹⁴⁹ "DIFC's FinTech Ecosystem Gains Further Momentum in 2018." News release, March 26, 2018. Dubai International Financial Centre. <https://www.difc.ae/newsroom/news/dubai-international-financial-centres-fintech-ecosystem-gains-further-momentum-2018/>.

APPENDIX

United Arab Emirates **August 2017:** Abu Dhabi Global Market (ADGM) joined with KPMG to launch the first-ever FinTech Abu Dhabi Innovation Challenge. Finalists will work on developing solutions to specific problem statements divided into six focus areas, which includes InsurTech.¹⁵⁰ ADGM also established FinTech partnerships with the Responsible Finance and Investment Foundation and the Swiss Finance + Technology Association.¹⁵¹

United Kingdom **August 2018:** The FCA, in collaboration with 11 financial regulators from around the world, announced the creation of the Global Financial Innovation Network (GFIN) and published a consultation paper.¹⁵²

November 2017: InsurTech Gateway became the world's first InsurTech accelerator authorized as an insurance broker by the FCA, providing InsurTech startups with a more cost-effective and efficient route to get to proof of concept.

March 2017: The FCA's Project Innovate held a two-day forum focused on InsurTech.¹⁵³

United States **August 2018:** California's insurance commissioner, Dave Jones, approves the first InsurTech title insurer to operate in the state. "California consumers benefit when new competitors enter our insurance market and they use technology to provide more efficient services at a lower cost," Jones stated.

July 2018: The U.S. Treasury released its fourth and final report covering nonbank financials, FinTech, and innovation. The report does mention InsurTech, but offers no concrete recommendations at this time.

June 2018: The U.S. Department of Labor expands access to health coverage to small employers, franchisees, self-employed individuals, and members of associations and affinity groups through a new and improved Association Health Plan regulation.¹⁵⁴

May 2018: The U.S. Department of the Treasury's Federal Advisory Committee on Insurance met to discuss blockchain initiatives and InsurTech accelerators, among other topics.¹⁵⁵

¹⁵⁰ "ADGM and KPMG Launch 'FinTech Abu Dhabi Innovation Challenge' to Identify Game-Changing Innovations for the Region's Financial Services Industry." News release, August 6, 2017. Abu Dhabi Global Market. <https://www.adgm.com/mediacentre/press-releases/abu-dhabi-global-market-adgm-and-kpmg-have-come-together-to-launch-the-first-ever-fintech-abu-dhabi-innovation-challenge/>.

¹⁵¹ "Abu Dhabi Global Market & RFI Foundation Collaborate to Foster Ethical, Responsible & Islamic FinTech." News release, August 7, 2017. Abu Dhabi Global Market. <https://www.adgm.com/mediacentre/press-releases/abu-dhabi-global-market-rfi-foundation-collaborate-to-foster-ethical-responsible-islamic-fintech/>.

¹⁵² "Global Financial Innovation Network." News release, August 7, 2018. Financial Conduct Authority. <https://www.fca.org.uk/publications/consultation-papers/global-financial-innovation-network>.

¹⁵³ JD Alois. "FCA Holds InsurTech Forum." Crowdfund Insider. March 27, 2017. <https://www.crowdfundinsider.com/2017/03/97841-fca-holds-insurtech-forum/>

¹⁵⁴ Definition of "Employer" Under Section 3(5) of ERISA-Association Health Plans. Federal Register. Employee Benefits Security Administration. June 21, 2018. <https://www.federalregister.gov/documents/2018/06/21/2018-12992/definition-of-employer-under-section-35-of-erisa-association-health-plans>.

¹⁵⁵ Open Meeting of the Federal Advisory Committee on Insurance. Federal Register. Treasury Department. May 1, 2018. <https://www.federalregister.gov/documents/2018/05/01/2018-09217/open-meeting-of-the-federal-advisory-committee-on-insurance>.

United States

February 2018: The National Association of Insurance Commissioners released a three-year strategic plan, State Ahead.¹⁵⁶

December 2017: The American Insurance Association unveils new model legislation which is presented to the National Association of Insurance Commissioners that would “give state insurance regulators the freedom to waive some regulatory requirements for insurers who want to test innovative new products and technologies.”^{157,158,159}

September 2017: The Federal Insurance Office of the U.S. Department of the Treasury released its annual report on the insurance industry.¹⁶⁰

April 2017: The Government Accountability Office released a report on FinTech covering some of FinTech’s “sub-sectors.” Insurance is very briefly touched on in the discussion on blockchain.¹⁶¹

March 2017: The National Association of Insurance Commissioners announced the creation of the Innovation and Technology Task Force to keep insurance regulators informed of key developments and new products and services offered from startup companies and established insurance firms. The Task Force will oversee the Big Data Working Group, the Cybersecurity Working Group, and the Speed-to-Market Working Group.¹⁶²

January 2017: The U.S. Department of the Treasury’s Federal Advisory Committee on Insurance held a meeting that included discussion on blockchain in the insurance sector.¹⁶³

¹⁵⁶ “NAIC Releases Strategic Plan - State Ahead.” News release, February 7, 2018. National Association of Insurance Commissioners. https://www.naic.org/Releases/2018_docs/naic_releases_strategic_plan_state_ahead.htm.

¹⁵⁷ “AIA Unveils Innovation Proposal at NAIC.” News release, 2017. American Insurance Association. <http://www.aiadc.org/media-center/all-news-releases/2017/december/aia-unveils-innovation-proposal-at-naic>.

¹⁵⁸ Proposed Model Law: Insurance Innovation Regulatory Variance or Waiver Act. American Insurance Association. 2017. https://www.naic.org/meetings1712/cmte_ex_itf_2017_fall_nm_aia_proposal.pdf?1512435922621.

¹⁵⁹ Aaron Igdalsky. “American Insurance Association Urges NAIC to Create Regulatory ‘Sandboxes’.” Locke Lord. December 12, 2017. <https://www.insurereinsure.com/2017/12/12/american-insurance-association-urges-naic-to-create-regulatory-sandboxes/>.

¹⁶⁰ Federal Insurance Office Annual Report on the Insurance Industry. Department of the Treasury. September 2017. https://www.treasury.gov/initiatives/fio/reports-and-notices/Documents/2017_FIO_Annual_Report.pdf.

¹⁶¹ Financial Technology: Information on Subsectors and Regulatory Oversight. Government Accountability Office. April 19, 2017. <https://www.gao.gov/products/GAO-17-361>.

¹⁶² “NAIC Increases Spotlight on Innovation and Emerging Technologies.” News release, March 9, 2017. National Association of Insurance Commissioners. https://www.naic.org/Releases/2017_docs/innovation_emerging_technology_task_force.htm.

¹⁶³ Open Meeting of the Federal Advisory Committee on Insurance. Federal Register. Department of the Treasury. December 20, 2016. <https://www.gpo.gov/fdsys/pkg/FR-2016-12-20/pdf/2016-30632.pdf>.

APPENDIX

U.S. FULL-STACK INSURTECH PLATFORMS: STATE OF GROWTH (AS OF NOVEMBER 2018)

¹⁶⁴ Scott Walchek. "We're Live in the USA!" Trov. July 3, 2018. <https://www.trov.com/blog/were-live-in-the-usa>.

Platform	Then	Now
Clover	2014: Pilots operations in several counties in New Jersey	Offers plans in select counties in Arizona, Georgia, New Jersey, Pennsylvania, South Carolina, Tennessee, and Texas. Plans to enter six new markets in 2019
Ladder	2017: Launched in California and issued more than \$100 million worth of coverage	As of May, Ladder is available in 49 states and the District of Columbia. The platform has issued more than \$1 billion worth of coverage
Lemonade	2016: Launched in New York	Available in Arkansas, Arizona, California, Connecticut, District Of Columbia, Georgia, Iowa, Illinois, Maryland, Michigan, New Jersey, New Mexico, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, and Wisconsin
Metromile	2016: Underwriting policies in three states	Expanded to eight states as of July 2018
Oscar Health	2013: Begins offering individual plans in New York	Available in nine states with plans to enter additional markets in 2019
Root	2016: Launches in Ohio	Available in 22 states and is opening up operations in five more states and Washington, D.C.
Trov	2018: Expands into the U.S., offering coverage in Arizona	Expects to roll out its services to additional U.S. states later this year. The platform has received regulatory approval to operate in 43 states, up from 23 states in July 2017. ¹⁶⁴

ABOUT US

ABOUT THE AUTHOR

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