Q3 2021

Quarterly InsurTech Briefing

October 2021

Willis Towers Watson | Willis Re | CB INSIGHTS

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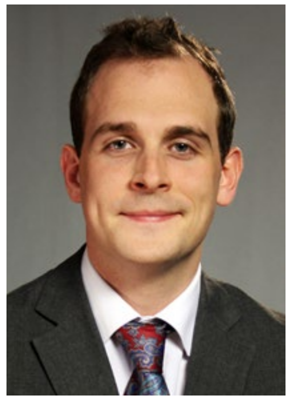
Foreword

Mega-round deals – a disguised blessing?

Mega-round deals — a disguised blessing?



Dr. Andrew Johnston
Global Head of Willis Re InsurTech, Quarterly Briefing Editor

Looking at the quarter-on-quarter global InsurTech investment figures, one could be forgiven for thinking that there was, is and continues to be venture and growth capital for many (or even most) InsurTech businesses. Superficially this certainly seems to be the case. Generally speaking, deal count and volume continue to rise consistently on a quarterly basis; however, this is possibly where the good news for the majority of InsurTech businesses ends. If we scratch away at the figures a little more, we can quite clearly see that a significant amount of the capital raised on a quarterly basis is arriving at the doorsteps of the few.

In our previous *Quarterly InsurTech Briefing* (Q2), we reported that the first half of 2021 oversaw the largest amount of global InsurTech funding in a six-month period on record, with a staggering US$7.4 billion raised in 183 days. To put this into perspective, in H1 2021, if we were to spread the investment total equally over the number of days in this time period, on average $40 million was invested into InsurTechs (globally) per day. This would represent a daily investment in the region of approximately $16,000 to $13,000 into each InsurTech on the planet (if we assume there are somewhere in the region of 2,500 to 3,000 businesses that have adopted the term "InsurTech" over the past decade).

On average, since the beginning of 2017, approximately 6.5 times more investment is occurring on a current quarterly basis into InsurTechs across the globe. This might logically and rationally lead the average contemporaneous InsurTech into thinking it has relatively easy access to ready capital. Unfortunately for most, this simply is not the case. Before we continue with this narrative, it is of course worth noting that not every InsurTech on earth needs or wants to raise money (especially not every quarter). There are those few InsurTechs that generate a profit, or those that are quickly acquired or have limited interest in ceding equity unnecessarily.

While the significant consolidated macro growth of global InsurTech investment trend over a relatively short period of time is in and of itself very noteworthy, a stark pattern has been driving most of this growth that is not good news for most InsurTech businesses: the concentration of the much for the few. The data we presented from the previous quarter's investment results showed that over two-thirds of the total volume raised went into only 15 InsurTech deals; in other words, approximately 0.5% of the world's InsurTech businesses shared $3.3 billion between them, while the remaining $1.5 billion was distributed among 147 companies. We know this remaining amount was also largely concentrated into just a few companies (given the number of rounds that were $70 million to $99 million, which fall short of the mega-round status but consume a significant amount of capital). As for the remaining 95% of the world's InsurTechs, there was zero fundraising activity (in Q2 2021).

If we look back at the past few quarters, the concentration of significant funds into only a handful of deals on a quarterly basis is certainly not a unique issue to Q2 2021; in fact, Q2 2021's mega-round deals, on an individual deal basis, represented a historic low percentage of the total amount of capital available (4%) being concentrated in one deal — this compared with Q2 2018 when a single mega-round deal represented 35% of the total amount of capital raised in the entire quarter.

In Q1 2021, eight deals (of 146) were responsible for 44% of total global funding; in Q4 2020, six deals (of 103) were responsible for 50% of the total global funding, and in Q3 2020, six deals (of 104) accounted for 70% of the total volume raised of global funding into InsurTech. We present the data in Figure 1 dating back to the beginning of 2018 to illustrate the effect that mega-rounds (rounds over $100 million) are having on total quarterly funding.

The vast majority of the InsurTech investment in 2021 Q2 was concentrated into a small number of companies.

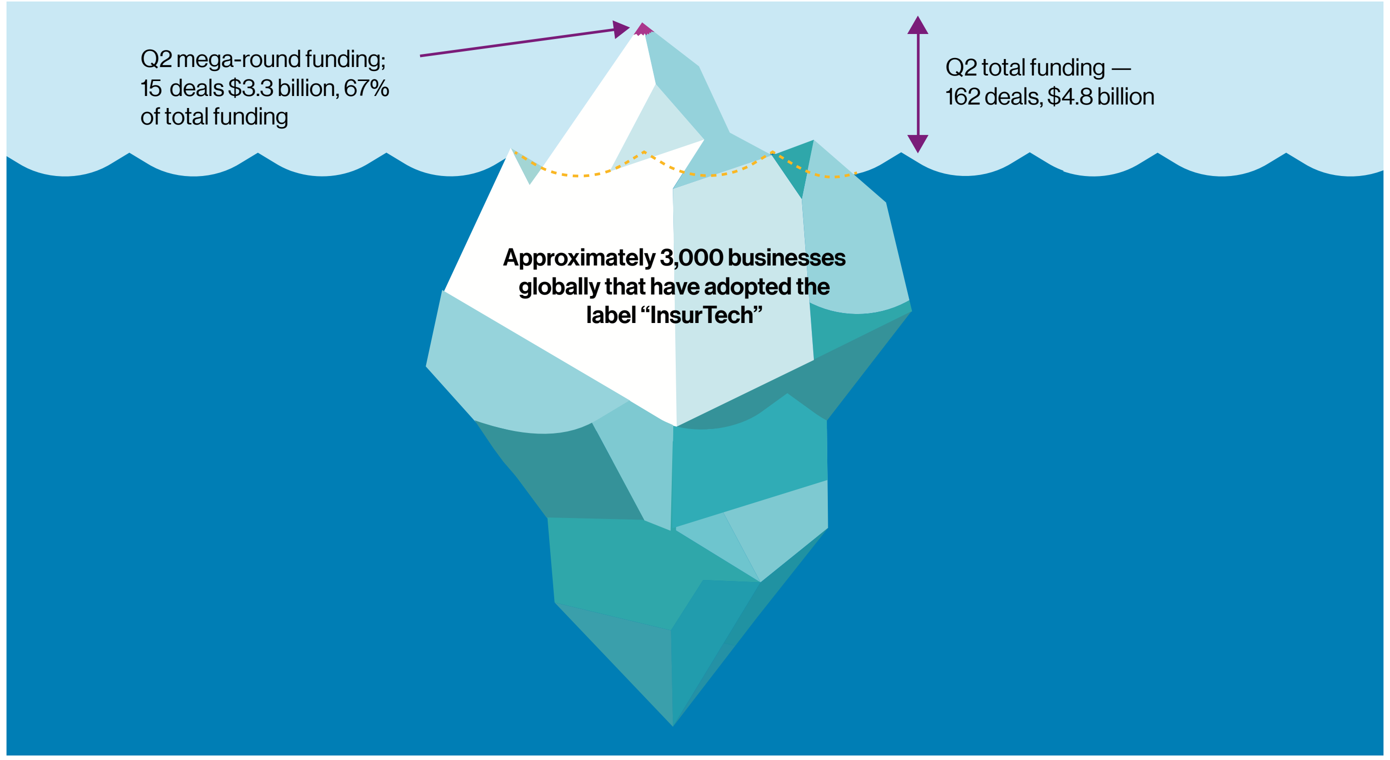
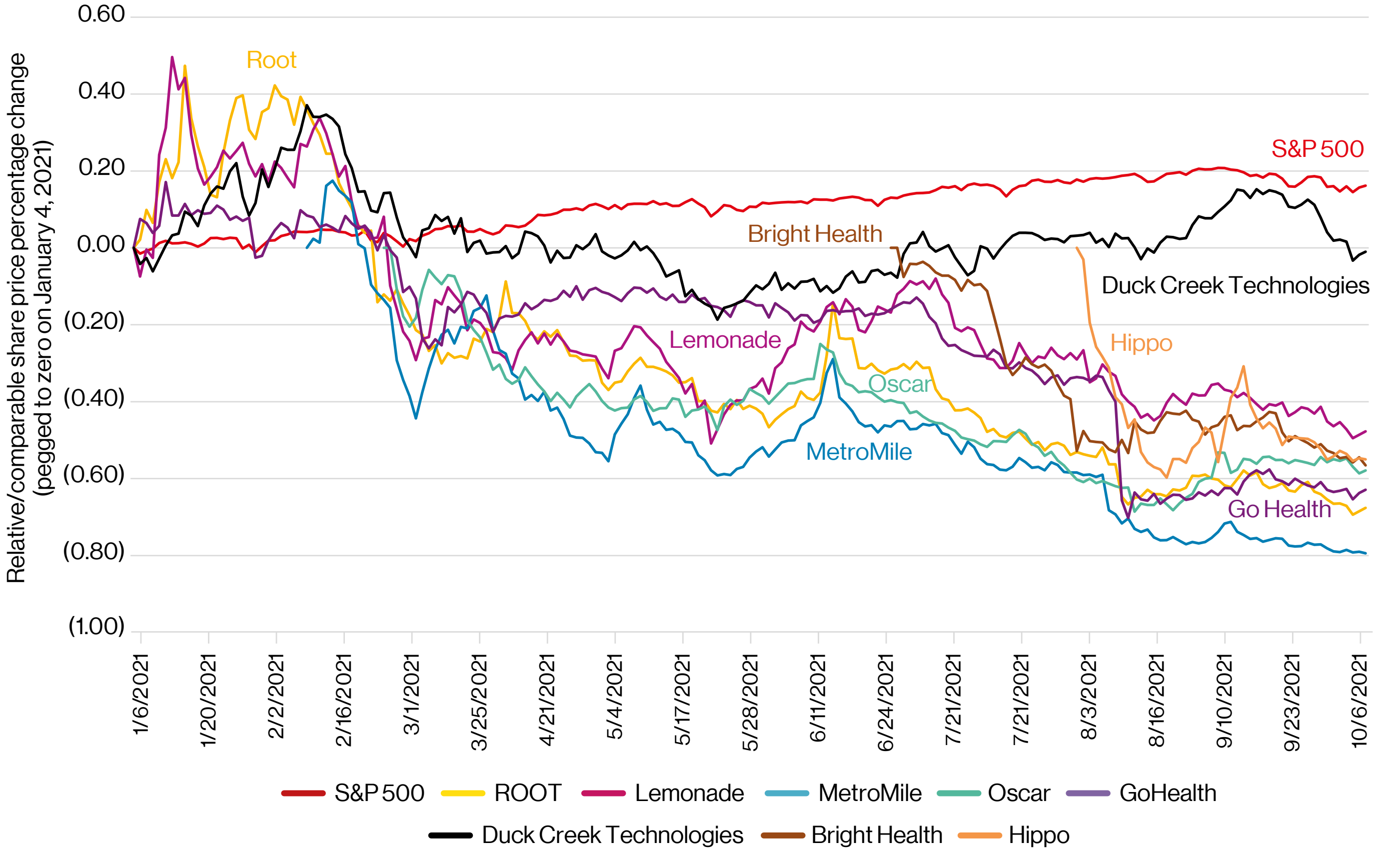


Figure 1. The composition of mega-round deals as part of the overall InsurTech investment since the beginning of 2018

Quarter/ Year	Number of mega-rounds (total number of deals)	Percentage of total funding driven by mega-rounds	Total amount raised through mega-rounds (total amount raised), US$ millions	Mean average percentage of total funding by each mega-round in quarter	Average mega-round deal size (US$ millions)
Q1 2018	2 (66)	38%	275 (724)	19%	138
Q2 2018	1 (71)	35%	200 (579)	35%	200
Q3 2018	3 (57)	49%	615 (1,260)	16%	205
Q4 2018	4 (63)	70%	1,116 (1,590)	18%	279
Q1 2019	2 (85)	44%	625 (1,420)	22%	313
Q2 2019	4 (69)	57%	802 (1,410)	14%	201
Q3 2019	4 (83)	52%	780 (1,500)	13%	195
Q4 2019	4 (75)	56%	1,115 (1,990)	14%	279
Q1 2020	1 (96)	11%	100 (912)	11%	100
Q2 2020	4 (74)	45%	705 (1,560)	11%	176
Q3 2020	6 (104)	70%	1,760 (2,500)	12%	293
Q4 2020	6 (103)	50%	1,052 (2,100)	8%	175
Q1 2021	8 (146)	44%	1,133 (2,550)	6%	142
Q2 2021	15 (162)	67%	3,300 (4,800)	4%	220
Total	**64**	**49% (average)**	**13,578**	**15%**	**208**

Figure 2: **Relative/comparable InsurTech stock price changes over time pegged to zero beginning January 2021, including S&P 500 to benchmark**



Data sourced from S&P Global Market Intelligence

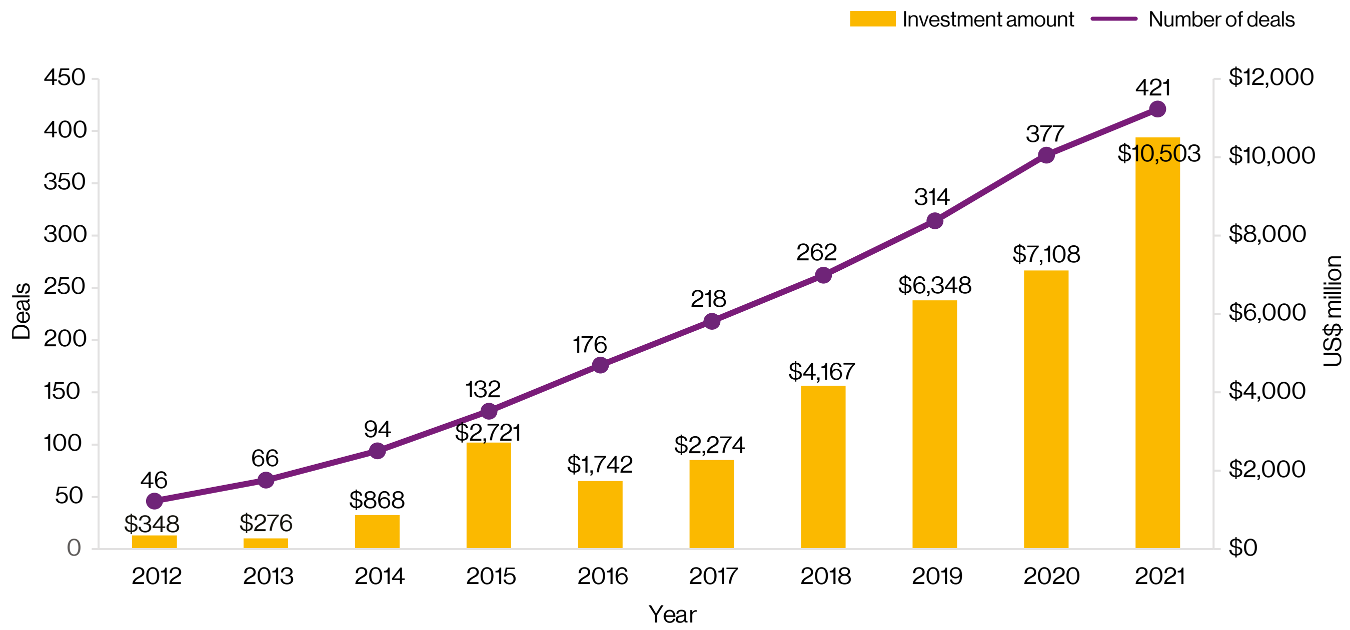
Figure 2 shows the stock prices over time of some of the global InsurTechs that have gone public. In order to create a graph of stock price change relativity, we pegged S&P 500 and eight InsurTechs at zero for the beginning of the year (Metromile, Oscar, Bright Health and Hippo are introduced at the point of going public with the same peg) to illustrate relative performance over the same time period. While this is extremely crude, what we are attempting to present is the convergence of seemingly correlated public InsurTech stock performances. Interestingly, Duck Creek Technologies has moved away from the rest of the highlighted group and is performing closer to what we are seeing across the S&P 500 average. While we cannot read too much into the relative performance of one business, it is worth noting that with the exception of GoHealth (a marketplace), all other InsurTech models here present are risk originating, whereas Duck Creek is a software-as-a-service (SaaS) technology provider for our industry. Perhaps over time we will see that certain InsurTech business models perform better over time once they have gone public. To reiterate the point made in Q2, this highly correlated behavior of the InsurTech "pack" is possibly a reflection of how the market views InsurTech in general (as a single animal), and not (just) a reflection of individual business performance.

If we look at the average total percentage of mega-round deals per quarter, we can see that approximately 50% of InsurTech investment goes into mega-round deals. What is particularly interesting is that in the past few quarters, each individual mega-round does seem to be representing an increasingly small(er) percentage of quarterly raises. This is most likely a reflection of an increased number of mega-rounds being done on a quarterly basis. We know that many InsurTechs before going public wish to embark on a big raise to increase their company value, and with it create unicorn status (i.e., start-up companies in the software or technology industry that are valued at over $1 billion). Four InsurTech unicorns were created in 2018, five in 2019, five in 2020 and eight so far in 2021. Depending on your definition of InsurTech, it could be argued that there are now 24 InsurTech unicorns in existence.

The topic of unicorn creation leads us to ask the same question we asked exactly two years ago (in the Q3 2019 *Quarterly InsurTech Briefing*): At what point does a "group of unicorns" become an oxymoron? Well, it has come to our attention that there is such a thing as a group of unicorns: A "blessing" of unicorns is the collective noun for such a group. Are the InsurTech unicorns in our midst a blessing? That remains to be seen. In Q3 alone, there have been a couple of new unicorns added to this "blessing." U.K. motor InsurTech Marshmallow joined the blessing club following an impressive $85 million raise, on a $1.25 billion valuation. Similarly, unicorns also publicly unveiled themselves this quarter as well. Just days after Q2 2021 closed, both Hippo (already a unicorn) and Doma went public.

Carrying on from the Q2 recordings, the stock price performance of many publicly traded InsurTechs continued to be a generally downward trend throughout Q3. While this does not seem to be dampening the trend of more InsurTechs wanting to launch an initial public offering (IPO) (and investment capital backing this trajectory), it will over time become harder and harder for InsurTechs to command the sorts of valuations that we have been observing if this trend continues in perpetuity. Additionally, it will become especially difficult for certain InsurTech businesses (to command current valuations) if it does become clearer/apparent that certain InsurTech business models are much more conducive to price defense, or at least performance of a more robust manner over time. It is worth noting, however, that the high(er)-valued InsurTechs (in the buildup to IPO) are currently still typically those businesses that are capable of demonstrating very high sales/volume growth, and this type of growth can realistically only be supported by certain types of business models — typically risk origination. As we can see post IPO, however, per Figure 2 of relative stock change performances on the prior page, risk-originating InsurTech's stock performance seems to be trending downward, as a group — at least for the time being. This is certainly something for us to keep an eye on.

Figure 3: **Annual InsurTech funding trends, including transaction volume and dollar amount, 2012 – Q3 2021**

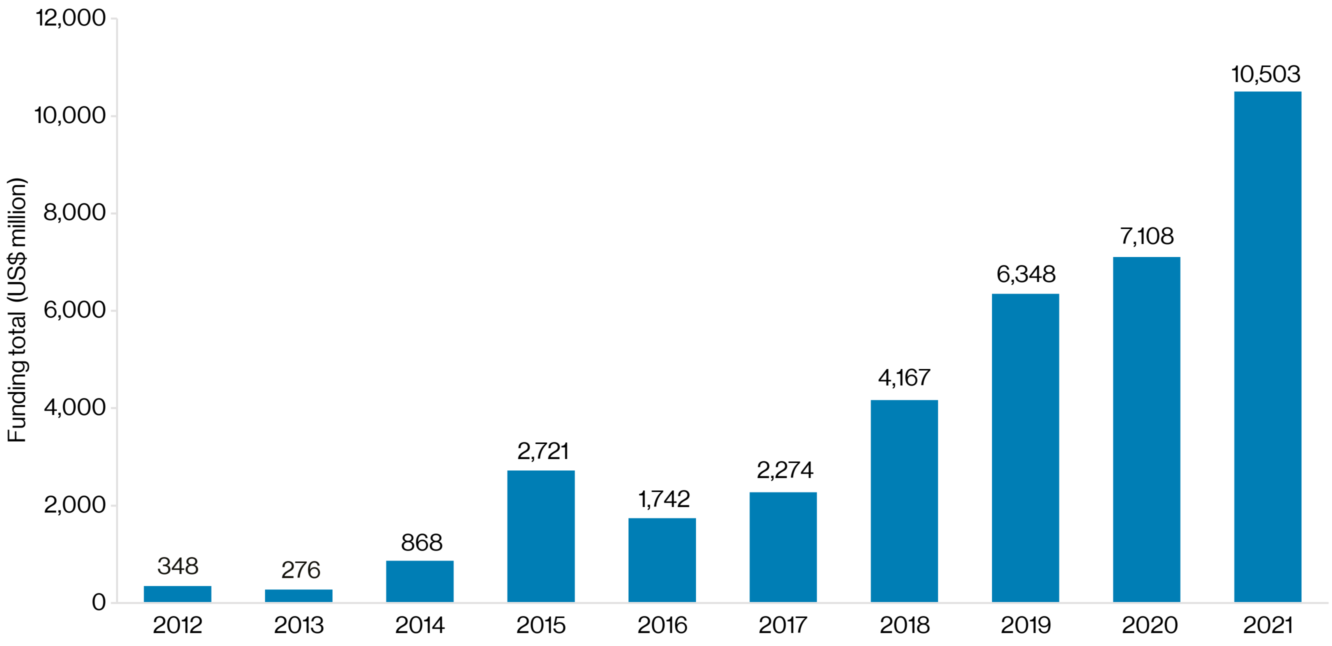


The volume of investment capital in the first three quarters of 2021 has surpassed the $10 billion mark for the first time in a single year in InsurTech investment history.

This latest *Quarterly InsurTech Briefing* is announcing that global InsurTechs continue to see a strong trajectory in Q3. This quarter, global InsurTech funding reached an enormous $3.1 billion. This represents a 23% increase compared with the same period last year and is notably the second-largest funding quarter on record. For the first time in history, we are seeing in excess of $10 billion being invested in a single year into this truly global phenomena. The total number of deals is also now at an all-time high as well, with 421 deals completed this year to date.

"The topic of unicorn creation leads us to ask the same question we asked exactly two years ago (in the Q3 2019 Quarterly InsurTech Briefing): At what point does a "group of unicorns" become an oxymoron? Well, it has come to our attention that there is such a thing as a group of unicorns: A "blessing" of unicorns is the collective noun for such a group. Are the InsurTech unicorns in our midst a blessing?"

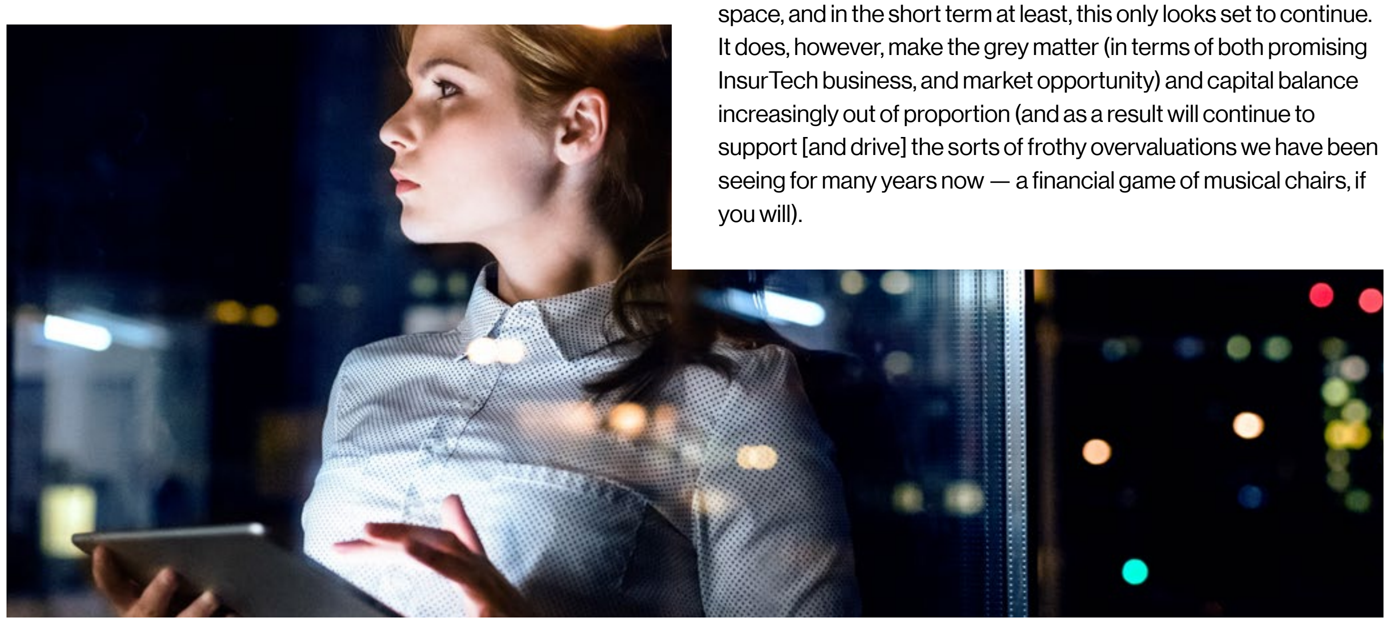
Figure 4 : **Annual InsurTech funding totals, 2012 – Q3 2021**



The graph above shows the annual InsurTech funding totals ($ million). To date, 2021 totals $10.503 billion. This is $12 million short of the entirety of 2018 and 2019 added together.

Undoubtedly, one of the biggest drivers of overvalued valuations for businesses in this space is the continued prevalence of venture capital (VC) investors who have turned to InsurTechs to expand their portfolios and make the most of relatively buoyant markets. If we look at the past 10 years, the number of venture investors participating in InsurTech is staggering — especially when considered through the lens of year-on-year new entrant activity. In this instance, we define a "venture investor" to include the following types of investor/capital: VC, corporate venture, super angels and growth equity. (Note, investors may have participated in multiple deals in a given year but will only be counted once in the data we will present in Figure 5).

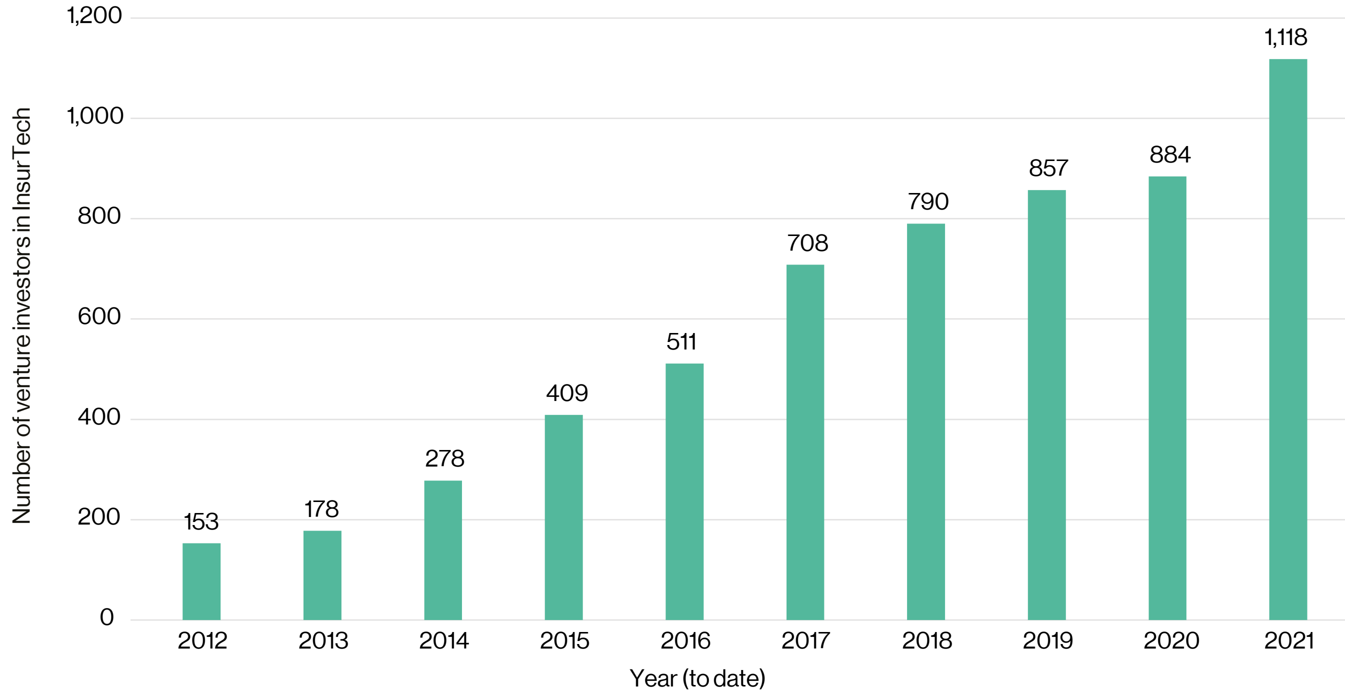
In 2012, we estimate that globally 153 venture investors put their capital to work into businesses that self-identified with the label of "InsurTech." Two years later, in 2014, that number had nearly doubled to 278 venture investors. Two years after that, in 2016, it was on the road to doubling again to 511 venture investors. In 2021, we estimate that, to date, 1,118 venture investors have their attention firmly set on the world of InsurTech – almost 7.5 times the original number we estimate for 2012. These investors are situated across the globe with varying appetites and mandates; some have a very specific InsurTech strategy, and others are making the most of the opportunity as they see it. As Figure 4 shows, there seems to be no slowing down of venture investors wanting to participate in this space, and in the short term at least, this only looks set to continue. It does, however, make the grey matter (in terms of both promising InsurTech business, and market opportunity) and capital balance increasingly out of proportion (and as a result will continue to support [and drive] the sorts of frothy overvaluations we have been seeing for many years now — a financial game of musical chairs, if you will).



In certain cases, the motivations of outside VC providers are relatively short-term focused and therefore greater emphasis is placed on volume and inbound growth versus sustainable loss (and therefore combined) ratios — or at least business models that can be self-sustaining without the assistance of investment capital. This venture investment cycle is self-perpetuating on the way up; venture capitalists are looking to drive valuations up, and this in turn attracts other venture capitalists who are attracted to these new areas of growth. This too is reflected in the steady and significant rise in venture investors participating in InsurTech investments over the years; that is to say, it is not just the prevalence of innovative technology in our industry or "the great untapped" that is luring new venture investors in. Given that there is clearly an increasing venture investor audience participating in the global InsurTech landscape, it is worth considering this every time a significant raise is completed or a new unicorn joins the blessing. It is also worth consistently checking back to the many motivations that a variety of investors have when we evaluate the timeline around the future of the InsurTech valuation peak — and perhaps most important, the types of investment motivations of the capital supporting InsurTech businesses. Bearing this in mind does help to rationalize certain valuations that might otherwise be considered irrational (relative to business performance on traditional [re] insurance metrics).

Given that much of the capital coming into InsurTechs is attracted to volume and inbound growth (particularly of gross written premium), many of the most highly valued InsurTech businesses by venture investors are unsurprisingly risk-originating businesses. There are, however, many hundreds of InsurTech businesses that focus on distribution and business-to-business (B2B) software vendor models that might themselves be fantastic businesses but are unlikely to achieve the types of elevated company valuations that their carrier-model InsurTech cousins are commanding (at the moment). One cannot help but think that this current trend of overvalued businesses going public might not actually be a blessing at all. Will some of these underwhelming InsurTechs ultimately jeopardize our overall view of technology as it continues to come into our industry? Will they be the heat that dries up investment funding that should actually be looking for a better home? Only time will tell, but one thing is for sure: The vast majority of InsurTech businesses are unlikely to receive many of the dollars that dominate most InsurTech news stories.

Figure 5: **Venture investors in InsurTech**



**Investors may have participated in multiple deals in a given year, but will only be counted once in the data we will present in Figure 5

While we have not (visually) delineated the graph down to a quarterly basis for venture investor numbers in figure 5., we can see from our own raw data that, from a quarterly perspective, Q2 2021 saw a record number of VCs participating in InsurTech deals (570 unique investors). In Q3 2021, despite the number coming down from Q2's peak, Q3 recorded a very impressive 396 unique investors writing InsurTech checks. This makes Q3 2021 the second highest quarter of unique investor activity, with only Q2 2021 being higher.

Q3 data highlights

InsurTech funding falls from its previous record high but remains elevated, raising $3.1 billion across 113 deals

Global InsurTechs continue to see a strong trajectory in Q3. This quarter, global InsurTech funding reached $3.1 billion. While this figure represents a 35% decrease from the prior quarter, it still represents a 23% increase compared with the same period last year and is notably the second-largest funding quarter on record.

After two consecutive quarters of deal growth, InsurTech deal activity fell nearly 30% from Q2 to 113 deals; however, year over year, overall deal activity was up 9% reflecting continued growth.

This quarter, mega-rounds remained elevated at 11; furthermore, outsize deals accounted for roughly 51% of total funding, compared with nearly 70% in Q2.

After reaching the lowest level since Q2 2018 last quarter, the share of U.S.-domiciled companies rebounded to nearly 46%, an increase of roughly seven points from Q2 2021. Countries including Indonesia, Sweden, South Africa, Singapore and the U.A.E. all saw quarter-on-quarter increases in deal activity as InsurTech continues to scale across the globe.

Early-stage average deal sizes grow to nearly $12 million, up 90% compared with Q2 2021

Early-stage start-ups raised a record-breaking $630 million in Q3 despite deals falling by 39% quarter on quarter to 57 deals. Given this dynamic, the average deal size across early-stage deals grew to nearly $12 million, an increase of more than 90% quarter on quarter and nearly 80% year on year.

The mix of early-stage deals also saw a notable shift in Q3. As a share of total deals, Seed/Angel rounds have fallen dramatically, reaching the lowest point since Q2 2020. Seed/Angel deals accounted for just 19% of overall deals — a 23-point decrease quarter on quarter and a 12-point decrease year on year. Conversely, Series A saw notable growth and accounted for 31% of all deal activity, a 15-point increase quarter on quarter and a six-point increase year on year.

Cyber insurance-focused start-ups represented two of the top three largest deals this quarter, as cyber continues to be a major business challenge.

Cybersecurity continues to be a major challenge for corporate executives and small businesses alike as the threat and frequency of cyber attacks continue to grow.

Of the three largest rounds this quarter, two of the start-ups were focused on offering cyber insurance, including Coalition, which raised a $205 million Series E, and At-Bay, which raised a $185 million Series D. We will feature the At-Bay deal in our Transaction Spotlight section.

Companies deploy a variety of models to approach cyber insurance, including tech-enabled managing general agents (MGAs) to underwriting and risk analytics providers. Outside of the top three deals, Envelop Risk, which focuses on cyber underwriting services to (re)insurers, inked a sizeable $130 million Series B, while even earlier in the funnel, BOXX Insurance and Y-Combinator-incubated Telivy each raised funding to grow its solutions further.

If we look specifically at Q3's mega-round headlines, to reiterate, of the 113 deals done in Q3, 11 were "mega". In terms of volume of capital committed, these 11 deals accounted for 51% of the total amount of capital invested in the quarter. The table below shows the impact that Q3's results have had on the overall average trajectory of mega-round funding into InsurTech (between 2018 and now). While it has done little to significantly alter the overall numbers, Q3's results support the theory that the number of mega-rounds being done per quarter is generally on the rise (this is the second largest quarter ever for mega-rounds recorded). Consequently, each individual mega-round deal represents a steadily decreasing percentage of total mega-round activity, while we observe the continued trend for more than 50% of quarterly funding to be concentrated into just a handful of deals.

Quarter/Year	Number of mega-rounds (total number of deals)	Percentage of total funding driven by mega-rounds (number of deals)	Total amount raised through mega-rounds (total amount raised), US$ millions	Mean average percentage of total funding by each mega-round in quarter	Average mega-round deal size (US$ millions)
Q3 2021	11 (113)	51%	1,588 (3,127)	5%	144
Total	**64**	**49% (rounded)**	**13,578**	**15% (rounded)**	**208**
Total plus Q3 data	**75**	**49% (rounded)**	**15,166**	**14% (rounded)**	**204**

This quarterly briefing's contents

This *Quarterly InsurTech Briefing*, the third in the 2021 series, will focus on InsurTechs, InsurTech initiatives and thought leaders focused on the future of risk — arguably the most important topic of the entire series. In this particular briefing, we will be featuring the following InsurTechs:

1. OTONOMI
OTONOMI is a blockchain-enabled parametric MGA that transforms cargo insurance policies into fast, cost-effective and transparent digital products.

2. Corvus
Corvus Insurance is the leading provider of commercial insurance products built on advanced data science, with an artificial intelligence (AI)-driven approach to empowering brokers and policyholders to better predict and prevent loss.

3. Arbol
Arbol is an InsurTech platform for parametric weather risk products that help businesses of any size or location build resilience against climate change risks.

4. Stable
Stable is a financial services and risk management-focused business that provides price risk management for the food and farming industry.

The future of risk

5. Understory
Understory builds and sells insurance solutions for the most challenging climate risks, powered by hyperlocal risk models and a breakthrough digital platform.

6. Concirrus
Concirrus is an InsurTech that is harnessing the power of the internet of things (IoT), satellite imagery and AI to help create digital insurance products and drive significant cost savings.

7. Kettle
Kettle is structured as a technology-empowered reinsurance MGA that is bringing advanced AI to the $400 billion-a-year reinsurance industry, starting with California wildfires.

8. Previsico
Previsico's modeling technology is the next generation of flood warnings, created to mitigate flood losses and save lives and livelihoods worldwide. Previsico forecasts and warns of surface water flooding, the biggest flood risk of all.

In this quarter's The Art of the Possible, we speak to Manny Citron at Volery Capital, about the evolving role of impact capital in supporting innovative InsurTech businesses, and Toby Behrman at Global Parametrics, about the use of development capital and cutting-edge technology to help introduce traditional liquidity into new and underserved risk transfer markets.

In this quarter's Incumbent Corner, we speak to Brendan Smyth, SVP, Global Innovation and Insights and Premal Gohil, Head of Innovation Partnerships & Investments at Liberty Mutual, to discuss Liberty's global innovation and InsurTech efforts.

This quarter's Thought Leadership comes from Willis Towers Watson's Julian Roberts, managing director, Alternative Risk Transfer Solutions. Julian shares his thoughts on the future of risk management and the increased impact that technology is having on our industry.

This quarter's Transaction Spotlight highlights tech-enabled commercial flood risk MGA reThought on its $15.5 million Series A round, and cyber and tech errors and omissions for small business InsurTech At-Bay on its $185 million Series D round.

As ever, we thank you for your continued support.

Introduction
The future of risk

The future of risk

This edition of the *Quarterly InsurTech Briefing* focuses on the future of risk. Specifically, we will be assessing the various ways in which technology and InsurTech are attempting to foster and drive innovations that ultimately lead to a better outcome for consumers, risk originators, intermediaries, vendors of technology and capacity providers.

The future of risk is obviously an enormous topic and issue for us to grapple with, and to that extent we will attempt to ring-fence what we mean by risk from the outset. When discussing risk, we are specifically talking about the change in value due to deviations between actual and expected insurance costs. As it relates to the future of risk, we will focus on those losses and costs that are being driven by emerging and evolving threats, which are both human and non-human, systemic and individual in nature. Furthermore, we will be exploring the extent to which technology is helping us to manage (and succeed in tackling) these risks, but also the extent to which technology is exacerbating this issue.

When reviewing the possible avenues and directions we could take to spotlight the future of risk, we think the nine areas illustrated below are arguably the most pertinent areas to consider.

1. Climate change/weather
2. Cyber/Digital Outage
3. Increased urbanization
4. Changing behaviour
5. AI/Robotics
6. Demographic changes
7. Resource management
8. Intellectual property
9. Financial insecurity/ shifting economics

While we will not be able go into extensive detail on each of these nine topics in this briefing, we will certainly focus on the two that we deem to be the most impactful and influential (as specific insurance-related risks) for the next two to three decades: climate change and cyber/digital outage. At its essence, the future of risk for our planet really orbits around issues of economic, societal, environmental, regulatory and political change to the extent that current models, products, pricing, responses and so on are being stretched (and in some cases rendered unpragmatic) to make sure that the operating and delivery capabilities of our industry are being tested in ways that perhaps have not been seen for many decades (or in other cases, ever).

An inexhaustive overview of the nine new faces of (re)insurance risks

More than anything, the characterization of new(er) risks is their fundamental uncertainty. This uncertainty is being driven by trends that are not well documented historically (or at least to the extent that our industry can derive data that can help forecast against some of this uncertainty). To that end, the lack of loss data is also in part what helps us to characterize these risks (referenced previously) in focus. As the world around us continues to change and alter (in some cases at unparalleled speeds), uncertainty driven by a lack of reliable, forecastable data is amplified further by unprecedented changes at a social and political level that can actually make it difficult to extract reliable and standardized data (even if it were available). Once again, technology can come to the rescue and help us to derive a source of truth around which we, as an industry, can look to solve for these varying risks.

The section that follows this introduction spotlights a handful of InsurTechs that we believe are bringing technology to a number of different areas of the future of risk, many of which overlap heavily with these nine areas that we have highlighted. As a reminder, emerging technologies unquestionably are having a demonstrably positive impact on the issue of evolving and transformational risk issue, but we will also explore the extent to which their benefits can only be considered positive when they outweigh the challenges that they themselves bring — and often exacerbate.

1. Climate change/increased weather volatility

Arguably the biggest single area of the future of risk is climate and weather. It would be remiss not to recount immediately the most recent events of Hurricane Ida. CoreLogic projects that there will be approximately $27 billion to $40 billion in losses from Hurricane Ida. According to Market Watch, at least $18 billion of this loss scope will be made up of insurance losses. In addition to the financial cost, at least 82 people are reported to have been killed by the hurricane. The events of Ida began on the 16th anniversary of Hurricane Katrina (which is still considered to be the costliest insurance loss worldwide resulting from a natural disaster, amounting to $82.39 billion).

Climate change and weather-related disasters, while an issue well and truly in and of itself, also have the ability to affect systemically nearly every other risk class of business. After all, (re)insurance products are designed to reflect the make-good requirements of people and property, and therefore weather and climate have the ability to affect our entire industry directly and indirectly. The most recent Global Assessment Report on Disaster Risk Reduction estimates that the economic losses from climate and weather disasters are nearly $300 billion each year. From a (re)insurance perspective, the table below gives an inexhaustive overview of the types of commercial impacts weather and climate continue to have.

Commercial impacts weather and climate continues to have on our industry

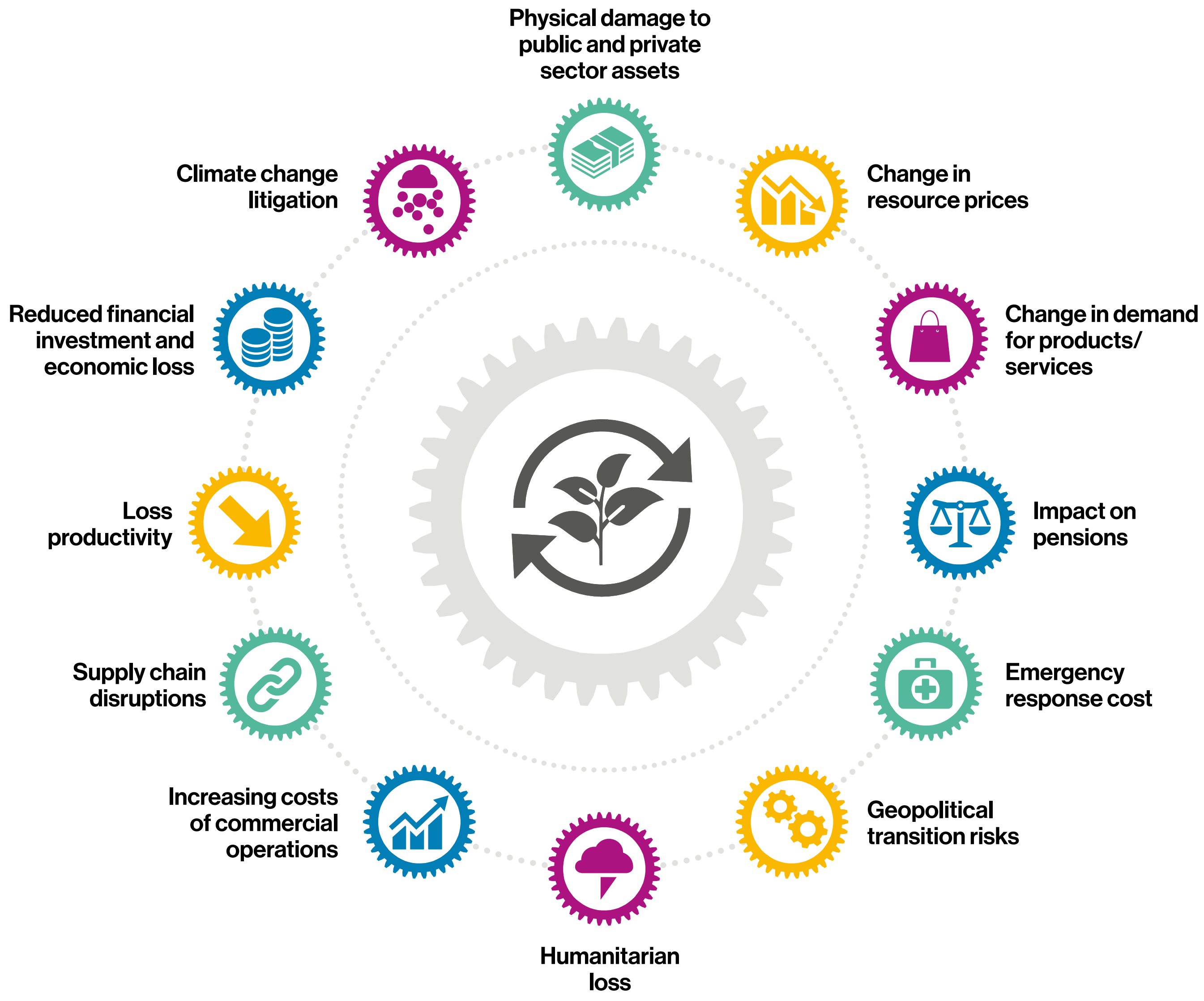
Industry	Weather exposure
Real estate	Severe winters increase energy bills, maintenance and snow removal costs
Construction	Execessive rain, wind or snow delays projects, resulting in liquidated damages
Food and agriculture	Drought, frost or extreme heat damages crops and reduces yields
Leisure and hospitality	Excessive rain, cold or snow forces cancellation or reduces attendance
Natual resources	Excessive rain causes shutdown of mines
Power utilities	Warm winters reduce energy demand
Public authorities	Severe winters increase snow removal and road gritting costs
Renewable energy	Lack of consistent wind, water or solar energy reduces power generation and thus revenue
Retail	Excessive rain or snow reduces footfall, and unseasonal weather reduces demand for seasonally sensitive ranges
Transport and logistics	Excessive snow or extreme cold/heat causes flight delays and cancellations, and increases clear air turbulence
Water utilities	Low rainfall results in water shortages; freeze-thaw events can lead to massive disruption and costs

Source: Willis Towers Watson: Climate Risk Solutions for Our Changing World

Perhaps unsurprisingly, a lack of data is driving much of our industry's issue(s) when it comes to the theme of climate and weather. A recent Willis Towers Watson poll found that a lack of data availability is the single biggest obstacle facing U.K. financial services firms in their effort to manage climate change risk. At a risk origination level, this issue is only exacerbated further. A poll of 122 global firms, including asset managers and institutional investors, found that the vast majority (80%) cited data (or the lack thereof) as their top concern.

As the graphic below illustrates, the impact of weather and climate (even in times of predictability) has the ability to entirely disrupt supply chains and financial markets, which in some cases actually creates vicious circles of events — especially regarding data capture and funding for further research.

Willis Towers Watson: Climate Risk Solutions for Our Changing World



One of the most alarming statistics that has come to light over the past decade has been a general reduction of insured losses that have been reported after severe natural catastrophes. In 2019, insured losses after a catastrophic weather event were down by 33% from 2018, which was down 44% from 2017. While one might think this is reflective of an overall reduction of catastrophic weather events, the true story is in fact much bleaker: Not only are there significantly more events (catastrophic events went up by 28% in 2019, compared with 2018), but also the insured loss reduction is a direct reflection of those who no longer have insurance as a financial cover. In some instances, the products have become increasingly expensive to reflect the uncertainty of quickly changing climate and weather patterns. In other instances, certain areas of the world have become uninsurable. This is a perilous situation for our industry and society more broadly.

Changing weather patterns and climate have presented our industry with the challenge of creating contemporary opaqueness and redundancy of not just aged data but also the ways in which data (that is available and relevant) correlates to how products and services should be being rethought for the modern market. Generally speaking, our industry takes a year-on-year view of pricing and event coverage, and one could argue that historically certain weather events have had traditional start and end dates. With the increased volatility and unpredictability that is being created, however, climate and weather changes are certainly not cooperating with these defined time horizons (that the industry ascribes).

As an example of the scale of issue we are facing, we look at one single facet of weather: wildfires. To date this year, the U.S. National Interagency Fire Center's (NIFC's) situation report listed a total of 40,681 wildfires across the country that had burned nearly 4.1 million acres. In 2020, the same agency report showed that U.S.-based fires had caused over $19.884 billion in damages, including $16.5 billion in property damage and $3.384 billion in fire suppression costs covering over 10.2 million acres. The 2019 – 2020 Australian bushfires killed more than a billion animals and caused more than $4.4 billion in damage. Analysts at Chaucer have predicted that U.S. wildfires have experienced a 30% rise year on year and will continue to do so. Turning to rising sea levels, it is also predicted that 0.6 to 1.1 meters (one to three feet) of global sea-level rise will be realized by 2100 (or about 15 millimeters per year) if greenhouse gas emissions remain at the high rates that we are observing today. Global heating is said to be making rainfall events nine times more likely in certain parts of the world, with western Europe alone in 2021 reporting 19% increase of "more intense" downpours. Similarly, water stress issues are being exacerbated; it is predicted that 2.5 billion people are at risk of water stress (25% of whom are at extremely high risk).

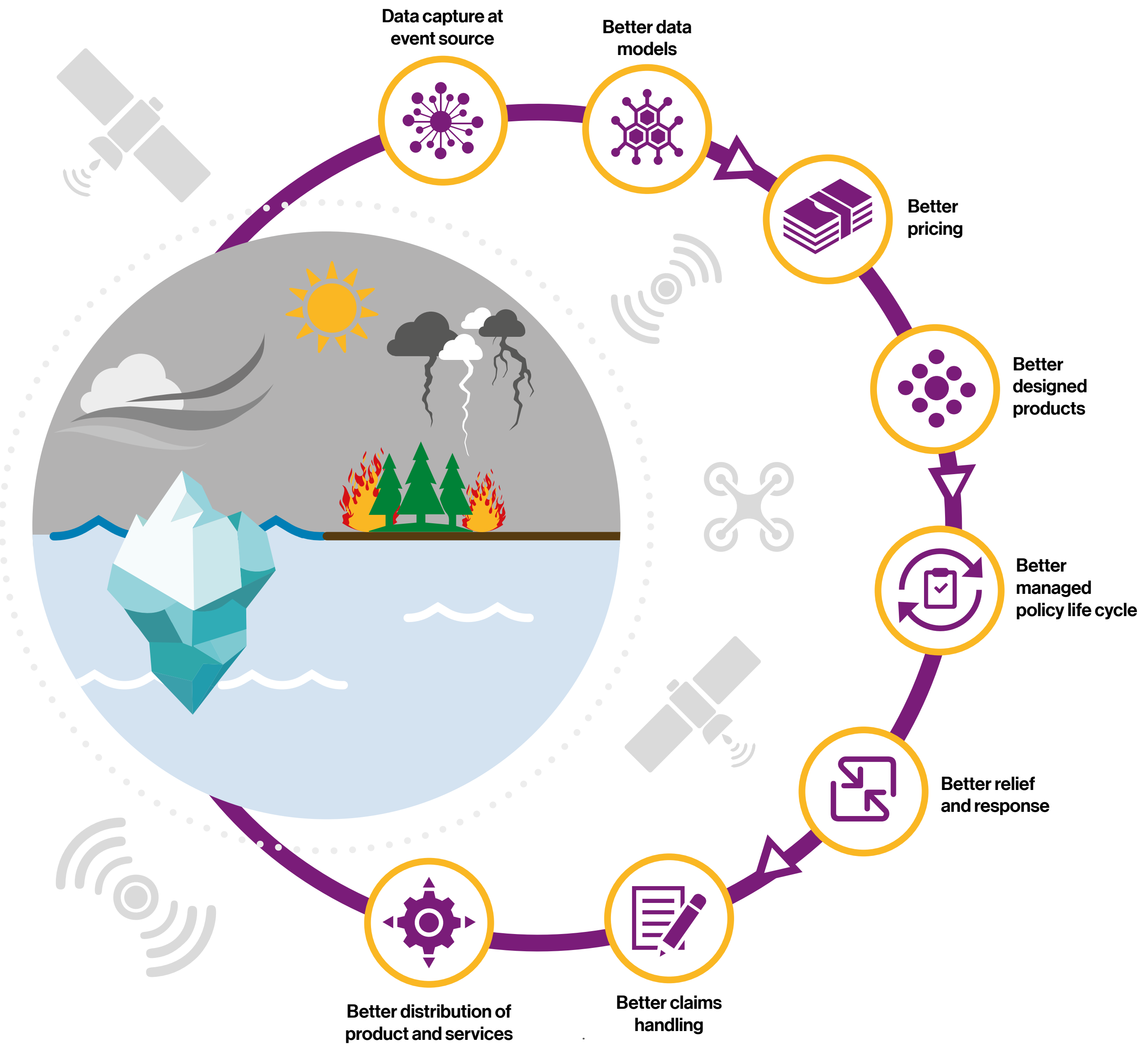
This story thus far has presented a very bleak view of the future and the enormity of the task that our industry is facing. As the single biggest risk that our industry and society face, it is of paramount importance that we use everything at our disposal to try to get a handle on climate and weather changes. There is hope, however, in the form of technology (supported by appropriate governmental, social and regulatory responses). As we have seen time and time again, technology can be one of the key drivers to accelerating and supporting innovative solutions to otherwise colossal problems.

From our perspective, technology has a primary and secondary role to play as it relates to climate and weather changes; the primary function is event preparation and response. When deployed appropriately, technology (as will be demonstrated in the InsurTechs in Spotlight section) can be used to capture (better) data at source; be used to write, collaborate and improve models; be fuel for predictive analytics; be used to improve prices, products and services; and finally improve distribution.

Better data capture	Better data models
Better pricing	Better products
Better managed policy life cycle	Better relief response
Better claims handling	Better distribution

In particular, over the past few years we have seen significant developments in the use of satellite and associated imagery capture of catastrophic events, LIDAR (laser imaging, detection and ranging) and onsite sensors to capture data at source. These data points are then being used in a variety of ways to create a new currency of wealth of information. In addition to data capture, we are also seeing innovative technology (and technology environments) be put to work to improve the rest of the (re) insurance life cycle. The graphic below is a high-level interpretation of these developments.

The impact of better data capture at the point of weather and climate source



The secondary function is event reduction and even possibly event mitigation. Technology is being put to work to actually decelerate and reduce many of the factors that have in fact been driving many of the changes we have observed relating to climate and weather. For example, modern environmental technology has enabled us to capture naturally occurring energy and convert it into electricity or useful heat through devices such as solar panels and wind and water turbines, which reflects a highly positive impact of technology on the environment. Similarly, the use of technology to better manage physical geography has allowed us to reduce the spread of wildfires in certain jurisdictions. Also, the use of technology to improve the planting of well-placed flora and fauna is already providing results as it relates to carbon dioxide absorption and soil erosion.

If we look at the use of energy in our society (a major proponent of human-driven change), it is clear that while we are still overly reliant on nonrenewable energy sources, the use of technology is accelerating the better adoption of renewable energy. According to the Capital Group in 1970, total net global energy sources were coal dependent to the tune of 40% while oil provided 20% of the world's energy.

In 2050, it is predicted that coal will account for 15% of the world's energy and oil will be negligible. Fossil fuels (nonrenewable) in total will make up less than 25%; renewable energy sources will account for 75%, and 56% of the world's energy is predicted to come from solar and wind (by 2050). None of this would be possible if it were not for the huge breakthroughs being made by technology (supported by social and governmental changes). Work in these areas, by businesses powered by technology, has already begun in earnest. In the U.K. in particular, technologically-enabled businesses are leading the way to harness the best of technology to help solve for some of the climate and weather issues we face as an industry and, more broadly, as a society.

Finally, it would be remiss of us in this section not to raise awareness of the growing trend in our industry to support environmental, social and governance (ESG) focused businesses and initiatives. Boards, management and investors are increasingly applying these nonfinancial factors as part of their analysis process to identify material risks and growth opportunities. In other words, there is an increasing pressure on all businesses to review their practices to make sure that no unnecessary adverse activity is being supported that contradicts ESG protocol.

Ultimately any technology that can bring innovative solutions to this fiercely concerning topic are being welcomed with open arms. To the extent that this technology can also unlock new sources of liquidity, can offer a better product and support more efficiency in our industry, we would see this as being a huge leap forward in tackling this existential threat. Any InsurTech business that can improve on even a fraction of this holy grail should see this as a huge opportunity.

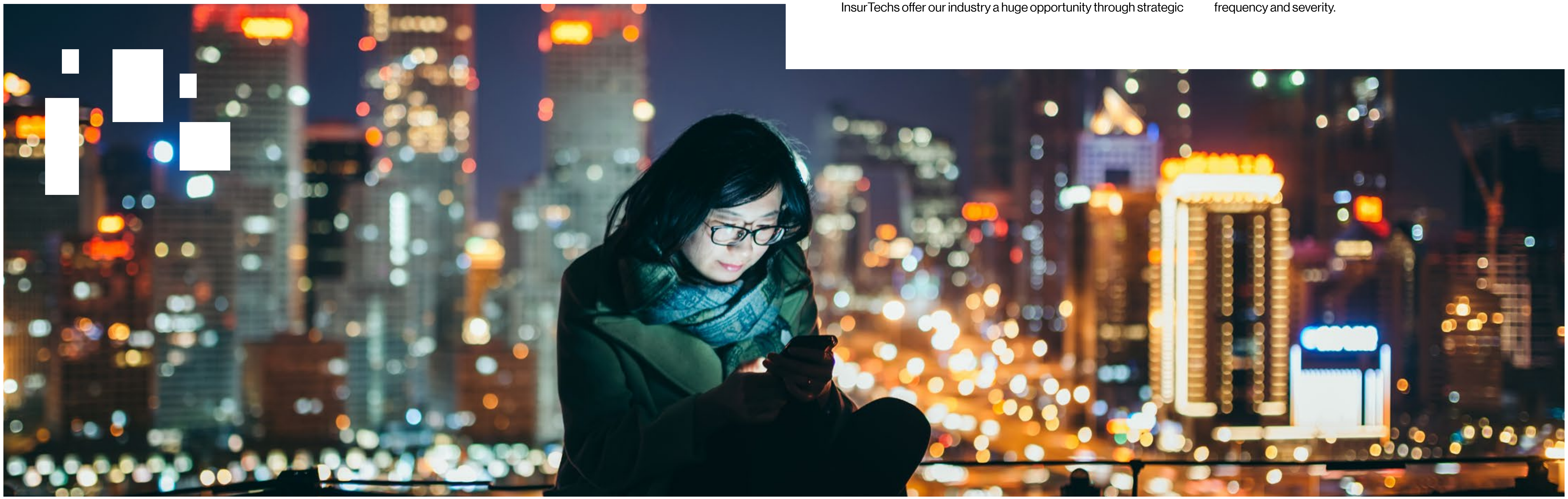
2. Cyber

Another hugely important emerging (arguably established) risk vector is that of cyber. Cyber is possibly the most interesting when viewed through the lens of technology and InsurTech given that, somewhat ironically, technology is actually a major part of the direct issue at hand (technology has unquestionably had damaging effects on the issue of climate change but not in such an immediate way). The more pervasive technology becomes in our society, the greater technology-related losses become a part of the problem of exacerbating and amplifying cyber-related losses. Several problems related to the management of digital security and privacy have been generated by rising digitalization within companies and economies, and this has been a major driver of demand for appropriate cyber-oriented products and services. Cyber is a daunting and exciting prospect for our industry and for society in general. The proliferation of technology brings with it inherent vulnerabilities; ironically the use of technology is also a key tenet to making sure that the threat of cyber is detectable, containable and quantifiable.

We are, however, looking to focus on technology as part of the solution in helping our industry and society more broadly tackle this very real risk. The global cyberinsurance market is projected to surpass $22.5 billion by 2030, up from $7 billion in 2020. Cyber crime and disruptive technology are two of the top three most dangerous risks that our industry faces, according to a new Willis Towers Watson survey of more than 100 insurance industry executives.

Cyber risk is notoriously difficult to price. Our industry knows how to price and react preemptively with efficacy to such an event as a house burning down or a car being damaged. Decades of data collection and experience, coupled with the physical manifestation of determinable "loss," allow our industry to provide the market with appropriate products and solutions. It is not so straightforward with cyber. Once again, the lack of reliable data (which is a solid indicator of loss) is sparse, making cyber such a difficult issue to deal with.

The cyber threat vector is constantly changing; motivations to launch a cyber attack alter, the number of nodes connected to interconnected devices continues to grow and the impact on business interruption increases as we digitalize. Perhaps even more important, forecasting the cost of a loss becomes ever more difficult given that what could constitute a "cyber loss" invariably overlaps with other insurance products sold; for example, is a property policy supposed to cover the loss of a destroyed mainframe that was questionably breached by a cyber attack?



In the opinion of many, our industry has been slow to innovate around cyber. Many of the earlier "cyber" policies sold were simply repackaged tech errors and omissions (E&O) policies from the early 1990s that offered little in terms of contemporary pricing techniques to reflect the accuracy of the real-time threat. But is this the result of laziness on the part of our industry, or does this represent a much bigger issue that, simply put, stems from the inherent difficulty of understanding cyber as a threat, relative to the role that insurance can play?

Without truly understanding where malicious attacks or unintentional outages/breaches are coming from, or understanding the true monetary value of a digital asset or the impact that a working digital system has in the supply chain of a business (which if stopped working would cause business interruption), are those who are pricing cyber simply throwing coin tosses?

If our industry is going to tackle cyber as an emerging risk, and maximize cyber as an evolving line of business, then it needs to become more comfortable pricing this risk class. In order to do this, the industry should be open to working with InsurTech businesses that specialize in demystifying cyber. Cyber is a multifaceted, ever-evolving therianthropic phenomenon. The appropriate response to this is to task our industry with an equally multifaceted approach. Rather than trying to specialize and excel in each tenet required, InsurTechs offer our industry a huge opportunity through strategic commercial partnering to allow incumbent insurance firms the ability to become part of a broader, more resilient jigsaw puzzle.

Where technology in cyber has been especially effective is in the area of defining the product, i.e., what is it that we are actually trying to solve for? Originally our industry tried to price this product in a sea of unquantifiable loss; however, without enormous systemic reinsurance products backing these initiatives, this was never going to properly work. We have now a situation where the onus is as much on defense and event response as it is on trying to appropriately price an unforeseen loss. While crude, some of the best successes have been InsurTechs and technology initiatives that have essentially put a burglar alarm on the outside of digital business presence. While a burglar alarm will not stop a determined actor, it will make that actor think twice about considering another target that looks less secured.

A variety of different technologies are being used to monitor and tackle the threat, notably hardware authentication software, user-behavior analytics, data loss prevention software, deep-learned algorithms (and respective subsectors of artificial intelligence [AI] and machine learning [ML]) and cloud-based security processing. These types of technologies can scour networks at unparalleled speed and volume. InsurTechs that are putting together innovative ways of tackling cyber know that it is technology itself that will play a major role in solving our exposure against the backdrop of frequency and severity.

Some noteworthy InsurTech partnerships, deals and funding from Q3 2021:

1. Carvana and Root, Inc. exclusively partner to develop industry-first integrated auto insurance solutions for Carvana customers

Carvana, the leading e-commerce platform for buying and selling used cars, and Root, Inc., the parent company of Root Insurance Company, the leading InsurTech carrier, announced an exclusive partnership to develop integrated auto insurance solutions for Carvana's online car buying platform. In connection with the partnership, Carvana will invest approximately $126 million in Root.

2. Cyber reinsurance underwriter and InsurTech Envelop Risk raises $130 million

Envelop Risk, a U.K.-based specialist cyber and emerging risk underwriting firm, has raised $130 million in a Series B funding round led by SoftBank Vision Fund 2. The InsurTech intends to use the proceeds to expand its underwriting operations in London and Bermuda. It also plans to foray into the global market and offer new lines of re/insurance solutions.

3. Corvus and SiriusPoint announce strategic investment and multiyear underwriting capacity partnership

Corvus Insurance, a leading provider of smart commercial insurance products powered by AI-driven risk data, and SiriusPoint Ltd., the global specialty insurer and reinsurer, have announced a strategic investment and multiyear underwriting capacity partnership that will support existing and future commercial insurance product offerings.

4. Marshmallow raises $85 million Series B, becoming a U.K. InsurTech unicorn

Marshmallow provides motor vehicle insurance in the U.K., with its core business model centered on using big data, machine learning and algorithms to provide more competitive rates for consumers. The company announced raising an $85 million Series B from existing investors at a $1.25 billion valuation.

5. HazardHub is acquired by Guidewire, a leading InsurTech provider of API-driven property risk insights

Guidewire Software, Inc. has acquired HazardHub, a leading InsurTech provider of API-driven property risk insights to the property & casualty (P&C) insurance industry. HazardHub powers decisions for over 110 organizations, including insurers, reinsurers, brokers, MGAs and other InsurTechs.

6. Climate risk platform Cervest raises $30 million Series A led by Draper Esprit

Cervest — designed to quantify climate risk across multiple decades and threats down to the asset level — has raised a $30 million Series A round led by Draper Esprit. Previous investors Astanor Ventures, Lowercarbon Capital and Future Positive Capital also participated in the round and were joined by new investors UNTITLED and TIME Ventures.

7. Zesty.ai partners with the CA FAIR Plan to Assess Wildfire Risk

The California FAIR plan association enters a new partnership with Zesty.ai to better assess wildfire risk leveraging aerial imagery and artificial intelligence.

8. Cyberinsurance start-up Coalition raises $205 million at valuation of over $3.5 billion

Coalition's cyber risk management platform provides automated security alerts, threat intelligence and cybersecurity tools to help businesses remain resilient against cyber attacks. Coalition said the funds would help it increase its scale and expand into new insurance lines, among other things. The funding round was co-led by investment firms Durable Capital, T. Rowe Price Associates and Whale Rock Capital, with participation from the company's existing investors.

9. Cover Genius secures $100 million in Series C round driven by Sompo Holdings Asia to expand its embedded insurance platform

Cover Genius, a leading InsurTech for embedded insurance, announced that it has secured $100 million AUD in a Series C funding round led by Sompo Holdings with participation from G Squared and other existing investors.

10. Hong Kong's OneDegree raises $28 million in new round of funding

OneDegree, a Hong Kong-based digital insurance company that provides digital insurance products for pets, homes and businesses, has raised $28 million in a new round of funding as the start-up looks to expand in Asia. Sun Hung Kai & Co. and AEF Greater Bay Area Fund took part in the Series B1 round along with six existing investors. The latest investments take OneDegree's total fundraising to more than $70 million.

11. DealerPolicy raises $110 million for embedded insurance for retail auto sales industry

DealerPolicy, a digital insurance marketplace for retail car sellers and buyers, announced a $110 million Series C investment led by the growth equity business within Goldman Sachs Asset Management.

12. InsurTech Sayata secures $17 million in funding to continue expansion into the $100 billion small business insurance market

Sayata, the leading marketplace for insurance brokers and carriers to grow their business insurance portfolios quickly and easily, has raised $17 million in Series A funding that will drive expansion into several new insurance lines. Team8 Capital and Vertex Ventures led the round, joining original investors Elron, Kamet and OurCrowd.

13. Insurance verification start-up TrustLayer lands $15.1 million investment

TrustLayer, an AI-powered platform working to digitize insurance verification, has announced that it closed a $15.1 million Series A round led by Craft Ventures with participation from Abstract Ventures, Box Group, Propel Venture Partners, NFP Ventures, Sure Ventures, and PruVen Capital

14. Cyber InsurTech At-Bay collaborates with Microsoft to raise the bar on small-medium sized business

At-Bay, the insurance company for the digital age, has announced a collaboration with Microsoft to strengthen the cyber security posture of their customers as attacks become increasingly prevalent.

15. InsurTech Certificial raises $5.8 million in Series A funding

Certificial, a real-time certificate of insurance issuance and compliance management platform, raised $5.8 million in Series A funding. Backers included IA Capital, Nationwide, Cofounders Capital, Fin VC and Cameron Ventures. Certificial is a real-time intelligent insurance verification and monitoring platform, designed to simplify the supplier management and certificate issuance processes by providing businesses with dynamic ACORD certificates of insurance.

16. Connected motor/auto Insurtech Ticker and Abacai partner to raise capacity and expand their market offering

Connected motor InsurTech Ticker and Abacai Group have partnered to increase Ticker's capacity and introduce new levels of pricing sophistication, bringing connected insurance to a much wider market. Abacai is a vertically integrated next-generation insurance distribution and underwriting group, using an entirely new AI-based InsurTech platform, operating across the non-standard, short-term and prime segments of the U.K. motor market.

InsurTechs in Spotlight
Case studies

InsurTechs in Spotlight: OTONOMI

OTONOMI is a blockchain-enabled parametric managing general agent (MGA) that transforms cargo insurance policies into fast, cost-effective and transparent digital products. Powered by its proprietary technologies in data-activated triggers, smart contracts and integrated digital wallets, OTONOMI reduces claim resolution times from 45 days to 45 minutes, lowering administrative costs by 75%. OTONOMI's dynamic pricing and advanced risk scenario capabilities unleash new markets while achieving unparalleled profitability.

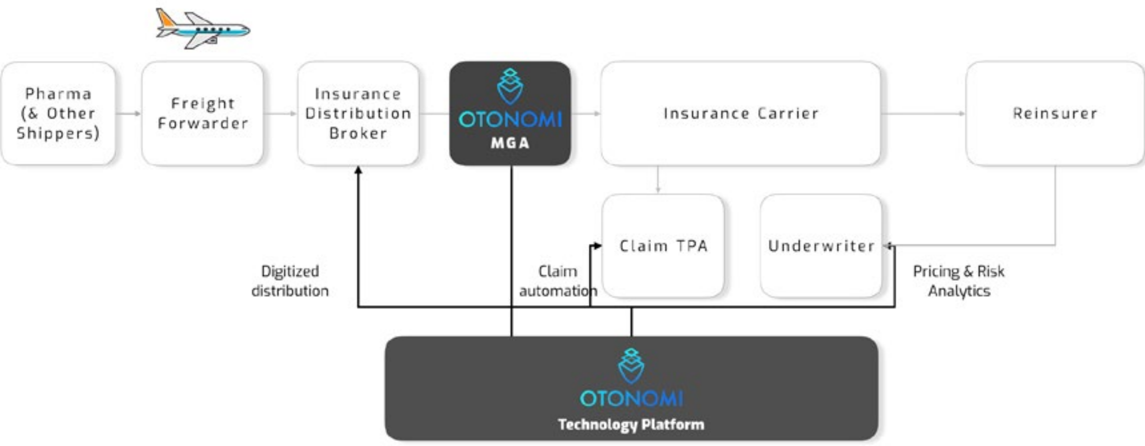
OTONOMI overview

With OTONOMI, logistics companies such as freight forwarders, shippers and receivers get access to automated delay and interruption coverage, with same-day compensation settlement, no questions asked. Meanwhile, insurance carriers, underwriters and reinsurers deploy innovative products and risk-capitals with unprecedented return profiles and fully automated operating models.

The company's parametric MGA platform unlocks novel digital-first policies that project the entire market to its next generation of insurance products.

Parametric policies: Detect. Activate. Pay.

- **One-click subscription:** The company's API infrastructure enables fast and flexible policies enrollment.
- **Independent event triggers:** The company's blockchain oracle partner, Chainlink, provides secure and encrypted data for verifiable event triggering.
- **Autonomous policies:** The company's blockchain-based smart contracts execute programmable legal and economic terms automatically for fully independent claim resolution.
- **Digital payments:** The company implements a comprehensive set of payments services to provide fast onboarding and funds settlement solutions for a broad range of clients.
- **Dynamic pricing and risk management:** The company builds proprietary logistics databases with statistical underwriting and comprehensive risk analytics for advanced pricing and risk management.



Partnership with carriers, reinsurers

Developing innovative MGA programs, OTONOMI offers carriers and reinsurance partners access to unique parametric products, which not only reduce expense ratios by more than 75% but also provide unseen economic return profiles and attractive loss ratios. Having designed our platform as a plug-and-play solution, favoring open connectivity via APIs, OTONOMI is a highly scalable InsurTech with an ambitious objective to roll out its products in the entire marine sector across verticals, with a global long-term vision.

Claims automation platform

Claims adjudication has been the bane of the insurance industry, and clients spend an enormous amount of effort and money going through those manual processes. With OTONOMI's parametric model, the company offers simple monitoring of policies that can be reviewed in a snap while providing full transparency to both the insurers and the clients.

InsurTechs in Spotlight: Corvus

Corvus Insurance is the leading provider of commercial insurance products built on advanced data science, with an artificial intelligence-driven approach to empowering brokers and policyholders to better predict and prevent loss. Corvus is reimagining commercial insurance for a digital world by making insurance smarter, policyholders safer and brokers more successful. Founded in 2017 in Boston by a team of veteran entrepreneurs from the insurance and technology industries, Corvus has over 200 employees across the U.S. and reached a $120 million annual premium run rate in January 2021.

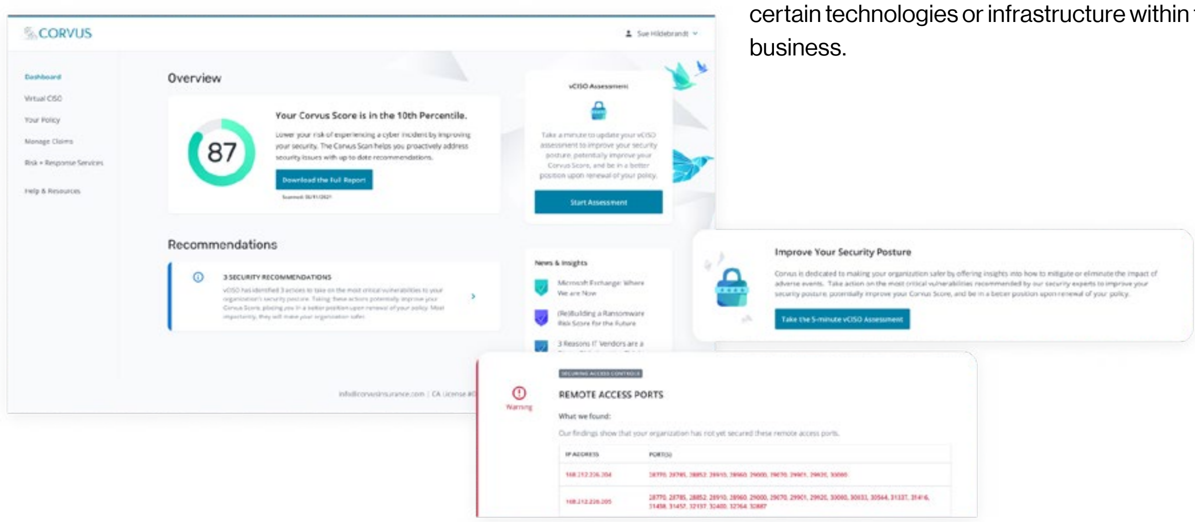
Corvus overview

The Corvus mission is to make the world a safer place by mitigating or eliminating the impact of adverse events. The company pursues its mission primarily through:

- Smart insurance products, including Smart Cyber Insurance®, Smart Tech E&O™ and Smart Cargo®
- CrowBar®, the flagship digital platform for brokers, policyholders and risk capital partners
- Risk + Response Services, a hands-on, holistic approach to risk management and incident response

"New sources of data, the data science techniques that make them insightful and the digital platforms that bring value to stakeholders are the keys to driving value throughout the insurance ecosystem. We are excited to be on the path to exploring the many opportunities to make the world a safer place by making insurance smarter for policyholders, brokers and suppliers of risk capital."

Philip Edmundson, Founder/CEO, Corvus



The company focuses its technology and insurance product development around stakeholders throughout the insurance value chain.

Making brokers more successful

From its founding, Corvus has focused on brokers as the key conduit to properly insuring and protecting organizations. The company helps wholesale and retail brokers to win more business by offering a fast quoting and binding process, to gain their clients' trust with easy-to-use digital tools that help illuminate and quantify risk, and to gain efficiency through increased automation.

Making policyholders safer

Corvus helps policyholders to both insure and reduce their risk. In addition to offering comprehensive coverage at a fair price, the company helps policyholders to decrease overall risk through proactive security recommendations, alerting of critical issues through the policy term and its suite of risk management services.

Giving risk capital greater control

Risk capital is what drives the insurance business. Corvus provides its reinsurer and program manager partners with a first-of-its-kind Risk Aggregation Platform, allowing for complete visibility of emerging risks Corvus is tracking, and an understanding of aggregations of policyholder risk centered on certain technologies or infrastructure within the Corvus book of business.

InsurTechs in Spotlight: Arbol

Arbol is an InsurTech platform for parametric weather risk products that help businesses of any size or location build resilience against climate change risks. The company was founded with a mission to make transparent, data-driven weather insurance products simpler and more accessible. Arbol's platform went live in March 2020, originally serving businesses in the agriculture industry. A little over a year later, Arbol now offers more than two dozen weather risk products and services for businesses globally in the agriculture, energy, maritime and leisure sectors. Arbol also offers customized climate risk solutions for large businesses and corporations.

The Arbol platform

Arbol uses machine learning, immutable climate data and blockchain technology to bring transparency and efficiency to the weather risk market. Arbol's proprietary pricing platform is powered by an artificial intelligence underwriter built to price risks efficiently. Clients can customize a coverage program for a wide variety of climate risks (e.g., rainfall, windspeed) directly through the app in just a few easy clicks.

Simple, transparent coverage

Arbol uses smart contracts to make coverage simple and effortless for its clients. Arbol's smart contracts have all of the parameters defined: location, risk parameters and the coverage amount. Contracts settle using publicly verifiable, decentralized data from Arbol's dClimate data and weather intelligence platform. If the triggers for loss in a contract are met (i.e., Did the selected location get a certain amount of rainfall according to the data?), the smart contract automatically triggers a payout, and the client is paid within two weeks without the need for risk adjusters, disputes or any additional claims paperwork.

Following are examples of the risks Arbol covers:

Agriculture

- Farmers get paid if there is too little or too much rainfall in their crop area and for other such weather risks.
- Physical sensors on farms can read actual crop output, and farmers get paid if output was reduced.

Energy

- A wind farm operator can get paid when wind speeds are too low, helping offset loss of revenue for its turbines.
- Natural gas producers can offset losses from having to shut wells in cold weather.

Captive+Parametric Solution

Arbol's streamlined Captive+Parametric solution for climate change risk management is a first-of-its-kind service that gives corporations a simple and practical way to take immediate action toward climate change risk management by transferring climate risks into captives using a parametric structure. It gives corporations access to global climate data, online structuring and pricing tools, and rapid automatic settlements.

dClimate

Arbol's product development process is supported by data from dClimate, the world's first transparent, decentralized network for climate data, forecasts and models. dClimate is the culmination of three years of work by Arbol to release its massive trove of cleaned, standardized and decentralized data as a stand-alone network and data marketplace. dClimate starts with a base layer encompassing thousands of terabytes of climate information with an aim to incentivize new data collection, product innovation and climate app development as part of a larger, open ecosystem that anyone can contribute to. dClimate raised a seed financing round in April 2021 led by CoinFund, with participation from Multicoin Capital and Republic Labs. In June, it added famed investor Mark Cuban to its investment group and advisory board. Arbol will be an anchor client for dClimate, using the network exclusively for its data and product development needs.

Development

Arbol closed an oversubscribed $7 million Series A funding round in January 2021 led by Mubadala Capital Ventures, with participation from its original seed round investors, Space Capital and Finch Finance. Late 2020, Arbol acquired its own dedicated, nontraditional capacity to support its expansion and to competitively price products.

InsurTechs in Spotlight: Stable

Stable is a London-based financial services and risk management-focused business that provides price risk management for the food and farming industry, founded in 2016.

Volatile commodity prices are a major problem for millions of businesses around the world. There is a significant protection gap created by two key factors:

1. Businesses more interested in safety than speculation find exchange-based financial products complex and intimidating.

2. Less than 10% of the world's commodities are traded on an exchange, as they are hard to standardize. Financial tools either don't exist or have significant basis risk.

Stable addresses both these challenges for businesses that can prove a clear insurable interest. Its parametric platform hosts over 5,000 third-party indexes from 70 countries that can be used to purchase a simple policy to protect against an unexpected price rise or fall. The contracts reference the index, published by the likes of the USDA or Fastmarkets, during settlement, making it simple, efficient and highly correlated to the client's physical risk.

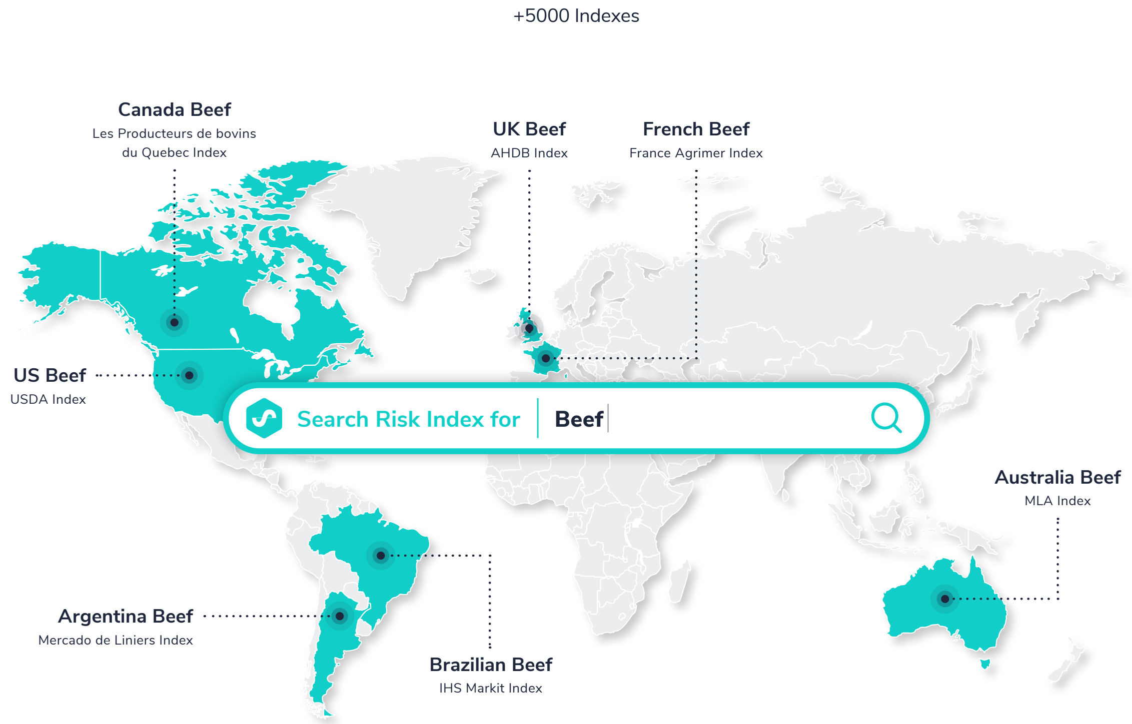
The company is regulated as a collateralized insurer in Bermuda, with operations in Chicago, London, Austin and New York City and is currently focused on the $5 trillion food and agriculture sector. Typical clients are mid-market food manufacturers and farming cooperatives.

Backed by Greycroft, Anthemis and Notion Capital, Stable is now expanding to other sectors, such as timber, renewable energy and packaging.

With its unprecedented range of indexes and its ability to serve both producers and consumers of commodities, Stable looks set to be popular in tractors as well as treasury departments in the months and years to come.

"Stable is changing the way businesses with a clear insurable interest can manage price risk in a simple, effective and scalable way. With over 5,000 indexes on the platform, it's now become the world's largest parametric platform hosting food, packaging, energy and construction indexes. The index-based contracts are at the heart of our ability to enable clients to invest in the future with confidence."

Richard Counsell, CEO, Stable



InsurTechs in Spotlight: Understory

UNDERSTORY

Understory builds and sells insurance solutions for the most challenging climate risks, powered by hyperlocal risk models and a breakthrough digital platform. It partners with leading brokers, carriers and reinsurers to create coverage that's affordable, fully customizable and transparent. Understory was founded in 2012 and is based in Madison, Wisconsin, with a team spanning North America, Asia and Europe.

Understory's Hyperlocal Climate Risk Engine

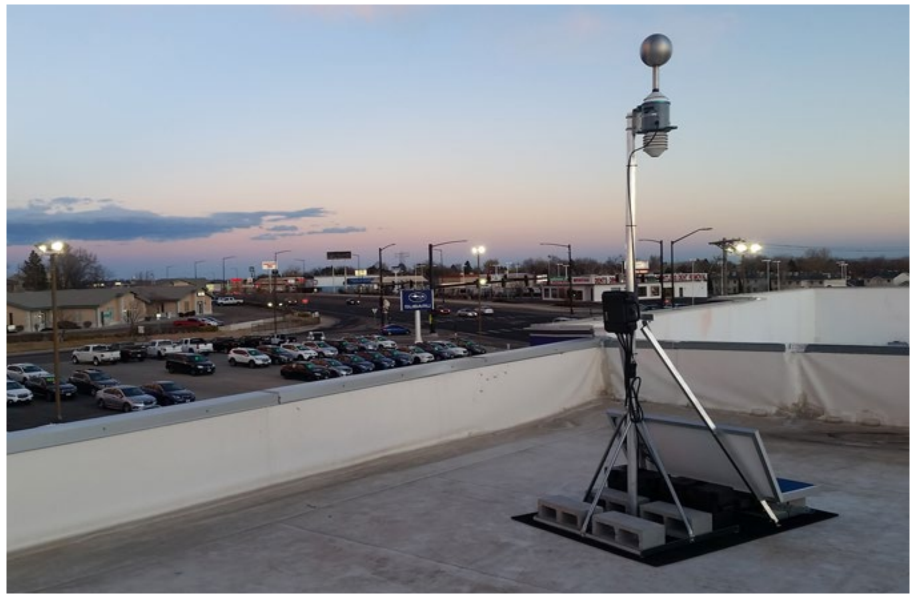
As the global protection gap widens to more than $230 billion, more and more livelihoods are exposed to devastating losses. Yet today's unprecedented climate risk is no match for traditional methods of modeling and risk management. Understory's Hyperlocal Climate Risk Engine is a unified digital insurance platform built for the era of climate uncertainty:

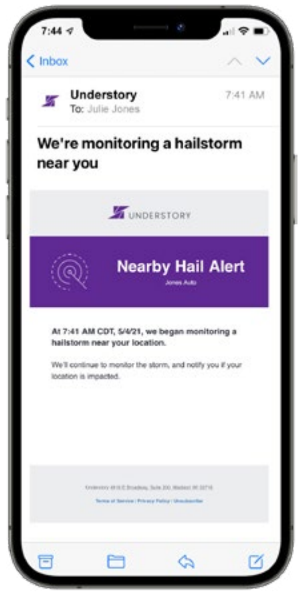
- **Hyperlocal, onsite measurement.** Understory's breakthrough Dot weather sensor is at the core of its platform. It allows the company to assess and measure climate risk uniquely where it actually occurs — on the ground. Dot is included with every Understory policy sold, capturing 125,000 hyperlocal weather measurements per second that assess losses with extreme precision, eliminate fraud and accelerate claims.
- **Best-in-class climate risk modeling.** Understory's Dot weather sensors have captured more than five years of climate data spanning three continents. Using artificial intelligence and machine learning, Understory's unrivaled weather database augments and corrects more than 50 years of third-party data. The result is a 1x1 km global climate model that's been validated by leading reinsurers and enables profitable risk selection.
- **Sophisticated, real-time loss mitigation.** All policyholders receive hyperlocal weather notifications from the Understory app, empowering them to reduce losses by sheltering assets or taking other preventive measures. Understory tests and evaluates loss prevention measures continuously. Successful measures are deployed across the client base to reduce claims, accelerate first notice of loss and make programs sustainable in the face of rising climate risk.

Adaptable risk structures and perils

Understory's platform powers multiple risk structures, including parametric, mutualized, hybrid and other customized methods of risk transfer. It also spans multiple climate perils — including hailstorms, wind and frost — and key industries — including automotive, commercial property, energy, agriculture and municipalities.

> "Understory's one-of-a-kind solution is bringing about a paradigm shift in the insurance industry."
>
> Bryan Vaughn, Managing Director,
> Tech Breakthrough Awards





InsurTechs in Spotlight: Concirrus

Concirrus

Concirrus is a U.K.-based InsurTech that is harnessing the power of the internet of things (IoT), satellite imagery and artificial intelligence (AI) to help create digital insurance products and drive significant cost savings. IoT is growing at an unprecedented rate (estimated to be a compound annual growth rate of 20% plus) over the next five years. Every asset is going to be monitored in near real time. Buried in that data is the behavior of the assets insured, which will change the insurance model by allowing what was previously unknown to be known. The company has an established track record and works with a large number of insurers, brokers and reinsurers across the market on personal line and commercial/specialty solutions.

Key highlights

Concirrus' IoT insurance software platform is a new modular technology offering that is a result of many years of investment and experience of working within the insurance market. The platform allows an insurer to unify and enrich its data using a wide range of IoT data sets, satellite imagery and the like and to combine these into AI models to analyze risk and derive powerful predictions. The services in the platform are used by customers across the organization, including underwriting, accumulations, pre-claim alerting, real-time first notice of loss and claim optimization. Concirrus delivers a unique set of API-driven microservices that can be embedded into customer workflows and avoids customers having to either build it all themselves or engage in costly integration projects.

Extreme weather events

Climate change is fueling an increased rate of extreme weather events globally with flash flooding, rising sea levels, intense storms, hurricanes and wildfires becoming more commonplace. We only need to look at the news over the past six months to see many examples of these, including winter storms in Texas; dust storms in China; severe flooding in Germany; wildfires in Greece; and most recently Hurricane Ida, which, according to the Federal Emergency Management Agency, was one of the most catastrophic hurricanes to make landfall. The increased rate at which these events are occurring has quickly become a significant pain point for the global insurance industry with unsurmountable losses and exposure.

Extreme weather events are changing the very nature of risk entirely, and so insurance organizations and practitioners are recognizing the urgent need not only to better understand their risk and exposure before they underwrite but also to manage losses more efficiently when they occur. Tools such as satellite and aerial data, IoT, AI and machine learning are changing the status quo, providing the industry with complete visibility in real time so it can improve risk selection and provide better support to manage these types of risks and exposures more effectively.

Faster claim resolution

Using Hurricane Ida — which caused catastrophic damage across many parts of the U.S. — as an example, through the power of satellite and aerial data, it is now possible to extract imagery from the entire area the hurricane hit and analyze the damage to every single property within a matter of hours of the event. AI, machine learning and computer vision allow Concirrus to do this at a scale and speed that could never before have been imagined.

Whereas it has traditionally been the policyholder who typically contacts the insurer to notify it of a loss and open a claim, now the insurer can be proactive. The automated damage assessment can flag property damage to the insurer, significantly reduce handling costs and speed up the claim process — a win-win for both the insurer and the policyholder.

The pivotal role of decision analytics

Concirrus CEO Andrew Yeoman comments, "We are heading to a future where all risk will be assessed algorithmically and traded digitally."

While many insurance organizations have the ambition to deliver innovative products to their customers, improve loss ratios and reduce operating expenses, they have previously been held back by legacy platforms and technology, siloed data and manual processes.

Now with Concirrus' next-generation decision platform, insurers will be able to access the benefits of sophisticated technologies without the complexity and costs of building them from scratch or needing to engage in an expensive systems integration project.

InsurTechs in Spotlight: Kettle

Kettle's mission is to balance risk in a changing climate. Kettle is bringing advanced artificial intelligence technology to the $400 billion-a-year reinsurance industry, starting with California wildfires. Kettle is structured as a reinsurance managing general agent that can underwrite these increasing risks.

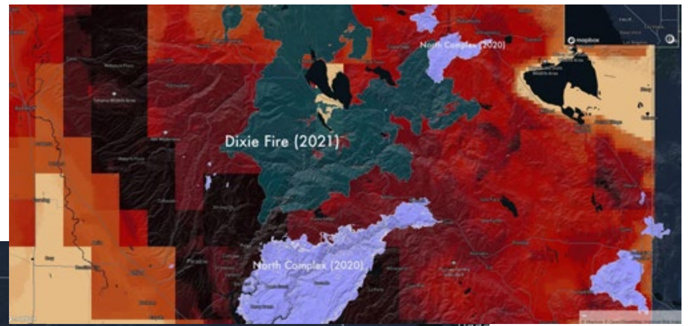
The reinsurance industry is hurting due to a 3x increase in catastrophes causing more than $1 billion in damages over the past 15 years, according to the National Oceanic and Atmospheric Administration (NOAA). In 2021, we have already seen the Dixie Fire in California burn over 700,000 acres and destroy over 1,200 structures based on California Department of Forestry and Fire Protection data. Kettle is about building a better safety net for society as we evolve into the next century.

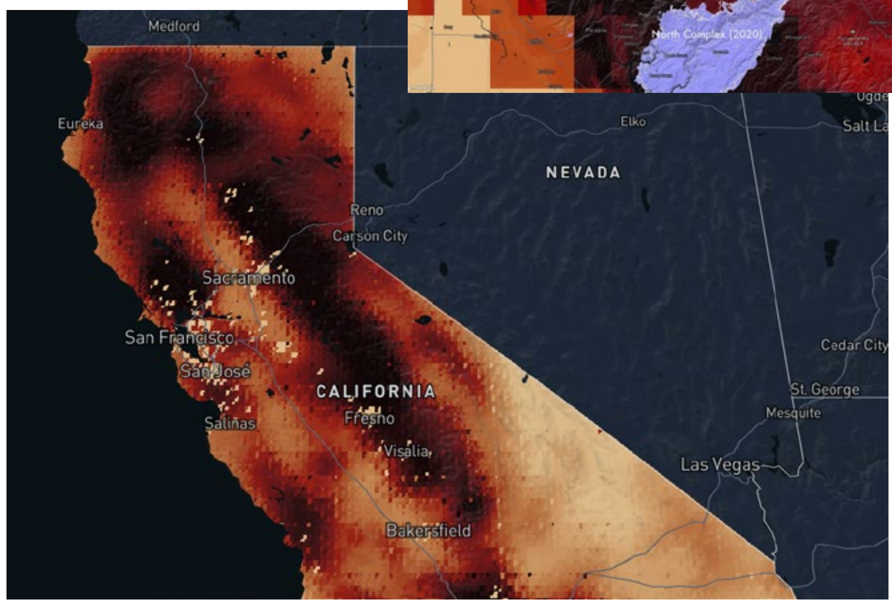
Wildfire is the first major example of market breakdown and pricing dislocation due to inadequate risk modeling technology. The nonlinear increases in frequency and severity have created a dynamic market that has caused most primary reinsurers to exit the space. This has led to a severe lack of capacity and a significant rate increase. By creating a system and products that allow them to understand risk surgically as well as price on extremely granular resolution, Kettle can fundamentally alter the way this risk is priced/traded.

Wildfires, like any catastrophic risk, are driven by a complex blend of underlying variables that exponentially compound in a catastrophe scenario. Traditional modeling of simulating past historical fires is successful only when underlying variables remain constant (e.g., brush density, rainfall, temperature, elevation slope, wind speed); however, climate change and population change have dramatically shifted these underlying variables. Consequently, risk modeling requires a detailed and real-time approach. Unfortunately, this level of detail requires the use of data sets that are difficult for humans to synthesize into higher-level abstractions.

Utilizing groundbreaking and theoretical advances in deep learning, Kettle is committed to helping protect the world against extreme natural catastrophes associated with climate risk. By harnessing over 7 billion lines of data, three petabytes of satellite data and a massive Swarm Neural Network system, Kettle is able to pinpoint and quantify the underlying variables that drive climate-driven catastrophic events. Kettle's technology and proprietary algorithms use terabytes of data from public and private data sources, such as NOAA weather data and NASA's MODIS and LIDAR satellites. Kettle's neural networks run upward of 140 million model parameters to calculate probabilities of fire damage at the half-square-mile resolution across the state.

In 2020, Kettle's model predicted that the 14 largest fires, which accounted for 98% of the damage, were in the top 20% of areas most likely to burn across California's 100-plus million acres. So far in 2021, Kettle's model predicted the area consumed by the Dixie Fire as one of the most dangerous areas in California. Kettle's investors include True Ventures, Anthemis, Homebrew, Inspired Capital and Acrew Capital.



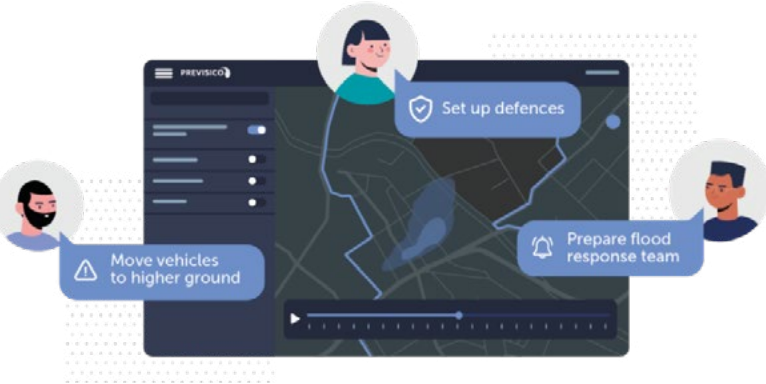


InsurTechs in Spotlight: Previsico

Previsico's modeling technology is the next generation of flood warnings, created to mitigate flood losses and save lives and livelihoods worldwide. Previsico forecasts and warns of surface water flooding, the biggest flood risk of all. Its technology is used by insurers such as Zurich Insurance, large corporates such as BT, the U.K. government and emergency services.

A global issue

Flooding is currently one of the world's most damaging natural hazards. Looking ahead, with a more volatile climate and increased urbanization, global flood losses are expected to increase tenfold to $1 trillion by 2050, according to the Water Resources Institute. As climate change makes severe weather occurrences more common, there is an increased need for accurate predictions of flooding events in the U.K. and beyond.



Previsico's solution delivers in real time

Previsico's solution delivers real-time street-level surface water forecasts, with live actionable warnings up to 48 hours prior to a potential flooding event, allowing insurers and their customers time to prepare and prevent significant flood damage. The company's models are continuously updated every three hours using the latest rainfall forecasts. This addresses a major gap by forecasting surface water flooding at a hyperlocal level and with an accuracy that gives people the confidence to take action. Following recent successful U.K. trials, Previsico will bring together the latest weather data from IBM, with its unique flood modeling capabilities and new on-the-ground IoT sensors across the U.K., to address even more accurately the increasing global issue of surface water flooding.

Market validation

Working in Lloyd's Lab with Liberty, Munich Re and Atrium, it was shown that timely flood warnings enable property owners to take action to mitigate loss. Case studies showed commercial and residential property owners saving over 80% and 50%, respectively. The warnings reduce flood losses best when the property owner also has a flood action plan and flood resilience measures.

Benefits to insurers and clients

- **Pricing:** Underwriters can assess customer behavior to a warning and incentivize.
- **Claims:** Losses are significantly reduced because warnings give property owners time to protect immovable assets and take moveable assets to safe places.
- **Risk management:** Insurers can proactively help customers address their growing flood risk.
- **Marketing:** Added value service differentiates an insurer's proposition and builds brand loyalty.
- **Environmental, social and governance (ESG):** By reducing losses and rebuilding costs, insurers can create a more sustainable future.

Previsico in action

Warnings are emailed to property owners and can be set up quickly and easily. The warnings state the location, depth and time that flood is forecast with a link either to Previsico's visualization tool, simply accessed via the web, or through an insurer's own portal.

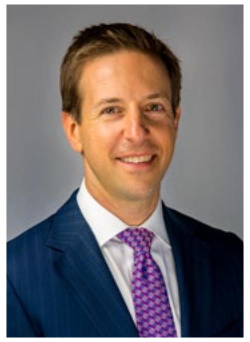
"Previsico's mission is to be the leading provider of cutting-edge flood prediction technology, worldwide. We are gaining great traction in the market and are thrilled with our recent £1.75 million investment round, which will enable us to accelerate our product development, including the rollout of the ground IoT devices, team expansion and sales growth, in the U.K. and beyond."

Jonathan Jackson, CEO, Previsico

The Art of the Possible

1. Manny Citron, Volery Capital
2. Toby Behrmann, Global Parametrics

The Art of the Possible: Manny Citron, Volery Capital



Manny Citron
Managing Partner
of Volery Capital

Manny Citron is the Managing Partner of Volery Capital. Prior to forming Volery in late 2017, Manny was a Principal at Stone Point Capital, a financial services-focused private equity firm with an extensive track record in insurance, which he joined in 2005. Prior to Stone Point, Manny was an entrepreneur, serving as the CEO of a privately held internet business. He started his career in private equity and M&A advisory at Beacon Group. Manny received his B.S. and M.B.A. from Wharton.

Volery Capital is a private equity firm that makes growth equity investments in financial services businesses that address climate change and economic inclusion. Volery invests in financial services subsectors, including specialty and consumer finance, insurance and benefits, asset management, and related business services and technologies. Volery's investments are thematically focused on the energy transition, resource efficiency, education and workforce development, and financial inclusion and wellbeing.

1. Manny, it is great to chat with you. For the benefit of our readers, could you please tell us a bit about yourself and the work being done by Volery?

Of course. It's a pleasure. Volery is a private equity firm that seeks to invest in growth-stage businesses that generate positive outcomes for people and the planet. In particular, leveraging the experience and expertise of our team, we are focused on the financial services sector. And to be more specific, we look to invest in financial services companies whose business models address climate change and economic inclusion. We believe that these global challenges represent a massive investment opportunity that reflect the societal shift in social and environmental priorities. We are backing talented management teams with innovative approaches, and we believe our investments can generate meaningful, positive impacts alongside market-leading investment returns.

For the team at Volery and for me personally, this investment opportunity is incredibly motivating. Our strategy includes a rigorous investment process, a unique approach to market mapping, identifying truly differentiated business models and supporting high-quality management teams, while adding value to portfolio companies post-investment, and creating alpha for our Limited Partnerships — all within the context of tackling some of the most pressing challenges of our time.

"At Volery, we believe that effectively managing environmental, social and governance considerations is fundamental to reducing risk and creating long-term value."

2. Many of our readers will have heard the term "impact capital," but to you and Volery, what does this term mean?

Every business has some sort of environmental and/or social impact. At Volery, we invest in businesses that intentionally seek to generate positive impact toward climate change and/or economic inclusion. For every investment we make, we formulate a specific impact thesis that is grounded in a detailed theory of change and tangible, measurable KPIs [key performance indicators] that evidence the thesis.

To enable the integration of impact considerations, we have developed an assessment tool called ALPHA that looks at investments from multiple angles across three core areas of process, performance and company values. At Volery, we believe that effectively managing environmental, social and governance considerations is fundamental to reducing risk and creating long-term value.

Taking a step back, though, we have designed our investment approach at Volery to be able to take advantage of a tremendous market opportunity. For example, at a high level, trillions of dollars of investment will be required to reduce carbon emissions to the Paris Agreement levels while creating sustainable and resilient low-carbon economies. In addition, the generation of financial services companies being built today to address the needs of historically underserved populations will require significant investment as they scale. And when we look at that cohort, with our portfolio companies as prime examples, we believe we can evidence that strong business outcomes go hand in hand with positive impact and are often mutually reinforcing.

3. Why did Volery decide that this was an important area for financial services firms to focus on? And what is your investment mandate as a result?

We believe that financial services businesses, which represent over 20% of GDP, are a critical part of the engine that drives our economy. Asset managers, insurance companies, and specialty and consumer finance businesses all play a pivotal role in allocating capital to support the growth of certain products and services over others. Furthermore, we believe deep, specialized expertise is required to successfully invest in the financial services industry over the long term, and we are building our business and investment strategy with that in mind.

Given the clear need for solutions to climate change and economic inclusion, it is critical — and a great growth opportunity — to develop a financial services infrastructure that proactively considers and integrates these issues into long-term objectives.

We are also strong believers in market mechanisms and believe that in order to create scalable and sustainable solutions, companies need to operate within the free enterprise framework. By investing in high-performing companies, we believe we can generate alpha for our investors while addressing these global challenges.

4. To what extent have you seen technology play a role in supporting this potentially transformative iteration of the (re)insurance industry's growth? Can the environment and society really be improved by better use of technology and start-ups that have these values at their core?

We are seeing it happen realtime across financial services. For example, we are investors in a consumer credit company called Petal that uses open banking data to power cash-flow-based underwriting that enables them to make affordable credit available to borrowers who are underserved by the traditional bureau-based credit underwriting system. As another example, one of our portfolio companies is a sustainable agriculture-focused asset manager that uses advanced approaches to hydrology and various layers of satellite data to enhance the economic and conservation objectives of their investments.

Within (re)insurance, we are seeing solutions in both the primary and reinsurance markets. For example, we recently completed an investment in a full-stack, insurance-as-a-service platform that seeks to provide financial products for the emerging middle class across the United States. The company's core product is a hybrid auto insurance policy for rideshare and delivery drivers that uses data from Transportation Network Company (TNC) platforms (e.g., Lyft, Uber) to underwrite policies. By using behavioral data instead of credit scores, the company's insurance product helps close the gap created by conventional insurance policies that can leave gig workers underinsured or with higher premiums.

The Art of the Possible: Manny Citron, Volery Capital

5. Specifically, what types of technology do you think have had the greatest impact?

In our view, the types of technology that are having an impact in the financial services industry are those that enable companies to more accurately assess and price risk. At a high level, this manifests in new approaches to underwriting that are leveraging much broader sets of data than have been used historically, which lead to being able to provide more fairly priced credit or insurance products to underserved populations. That, in turn, opens up new market opportunities. For example, providers of consumer credit that are able to leverage artificial intelligence to assess data gathered via open banking are able to assess credit risk for consumers that are thin-file or credit-invisible under the FICO system much more accurately than legacy providers. Within insurance, this type of underwriting, which may also incorporate geolocation and telematics data, can function similarly in terms of risk assessment for underserved populations.

Climate technology is also gaining significant traction as new approaches are emerging to fuel the decarbonization of our economy. We believe we are at an inflection point where economic viability, technology enablement and legislative agendas have the potential to drive massive market movement. For example, renewable energy technologies such as solar and wind have reached cost parity with traditional fuels, and decentralized energy generation has proven to be significantly more efficient than traditional energy generation power plants. Additional cleantech opportunities, such as smart grids, biofuels and LED lighting, create opportunities to provide more efficient, affordable and reliable energy sources while reducing waste and GHG emissions. We believe this will lead to an increasingly significant opportunity for insurance companies to provide tailored solutions for these projects and technologies.

6. This quarterly theme is the future of risk. What are the biggest evolutions/innovations that you have personally observed in this space over, say, the past five years?

One of the areas we've been very focused on at Volery is climate risk, which includes a range of environmental and social factors, but at its core, climate risk = insurance risk. Climate change is of course top of mind and applicable to all industries — although to varying degrees and in different ways. From a disclosure and regulatory perspective, the Task Force on Climate-Related Financial Disclosures (TCFD) is making great strides in helping codify the identification, mitigation and management of these factors and ensuring that all businesses are prioritizing their environmental impact, both in-house and along inside their supply chains. TCFD differentiates between physical risks — which are the direct costs related to the impacts of weather, floods, droughts and natural disasters on operations, immovable property and real assets — from transition risks, which relate to the financial impacts of policies and regulations, emerging technologies, reputational shifts and litigation.

It is a nascent part of the insurance industry, but we are seeing many new technologies and services emerging to help companies, investors, insurers, reinsurers and the general populace define, manage and price these risks. It is exciting and we expect it will continue to be as it matures in the years ahead.

7. Volery invests in all kinds of financial services businesses. Are insurance businesses that are tackling new kinds of social and environmental risk of increasing interest to Volery?

Absolutely. We view the insurance space as ripe for innovation and believe that we are in the early innings of a generational transformation. For example, we believe young InsurTech companies have a great opportunity to create business models that will help mitigate the economic impacts of climate change and economic inclusion by more accurately pricing climate risk and increasing coverage, and to provide effective, fair insurance products.

We believe that new technologies will continue to create dislocation and an opportunity for new entrants to take market share. We are looking to back insurance companies that appreciate the nuances and value of differentiated distribution, a disciplined approach to underwriting, and the importance of regulatory compliance and industry relationships. At the same time, these companies need to be willing to take a fresh look at how to tap into new markets or expand existing ones, how to improve the customer experience and establish a different type of relationship with their insureds, and how to more precisely — and more quickly and easily — price risk.

> "We believe that the insurance industry is going to play a crucial role mitigating the impact of climate change, which is one of the largest risk categories we face and is a defining element of the "future of risk."

8. To what extent do you believe our industry, coupled with technology, can provide solutions to the future of risk?

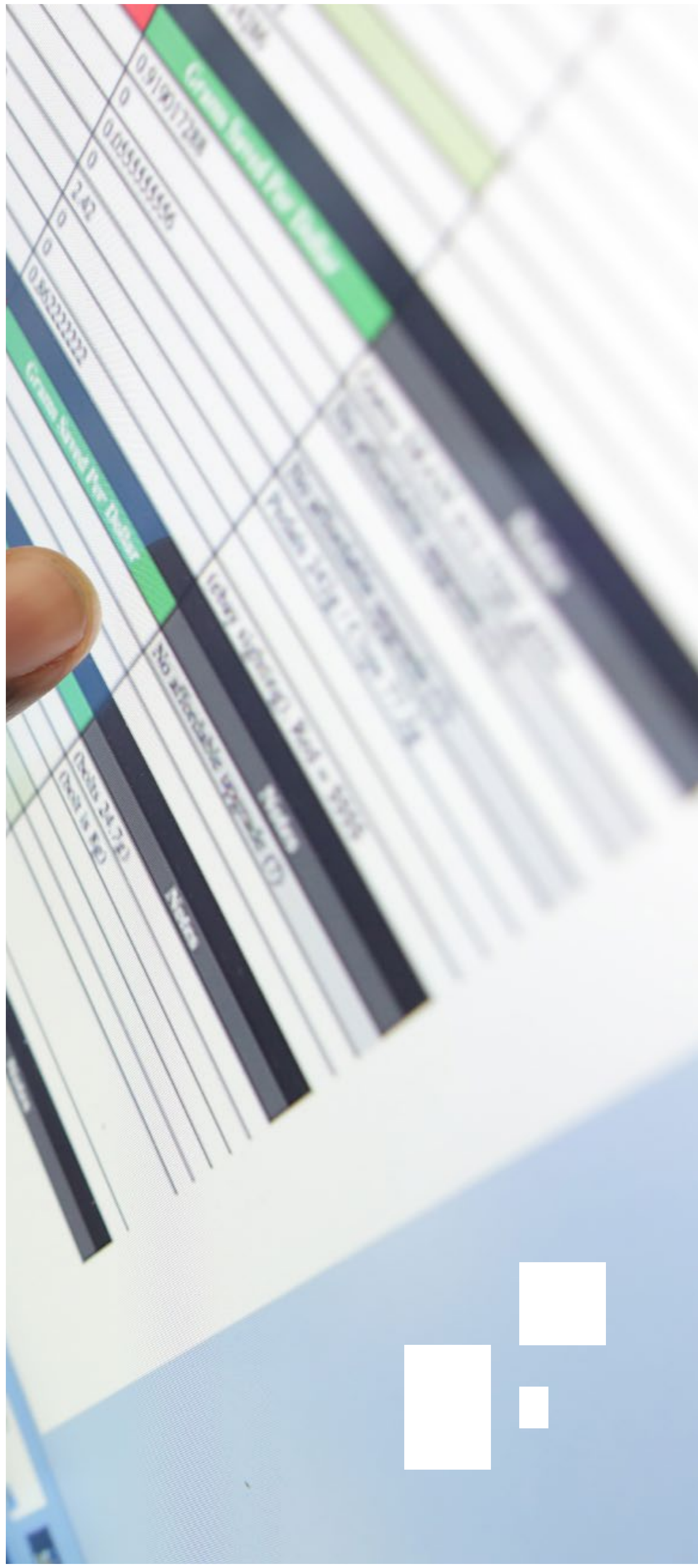
We believe that the insurance industry is going to play a crucial role mitigating the impact of climate change, which is one of the largest risk categories we face and is a defining element of the "future of risk." Being able to accurately price this risk and distribute insurance products that mitigate its impact will play a crucial role over the coming decades as we deal with increasing climate-related uncertainty. The technology-driven approach we've discussed, which leverages new data sources and approaches to underwriting, will be the driver of effective insurance coverage for climate-related risks.

At the same time, we see seismic changes occurring in the financial services sector more broadly, allowing institutions to underwrite populations that have been previously underserved due to race, gender and other factors. These innovations are enabling a new generation of consumers to access different types of financial services, including insurance, and are accelerating the need .

9. What advice would you give an upcoming InsurTech entering the market?

One of the notable changes in capital markets over the last several years is the velocity of capital formation and the pace of investment. Start-up companies are moving from seed stage, to taking their first institutional capital, to raising later stage venture and growth capital faster than ever. Within fintech and InsurTech, this dynamic can be even more pronounced than in other sectors, as investors have begun to become aware of the magnitude of the opportunity in these markets. So for a young company, it's crucial to be prepared to move quickly and aggressively, but equally important to build stable foundations in team, product and capital structure to enable the business to survive a change in the current environment.

Memories are short, but we won't always have market conditions that are as favorable to investment and risk-taking as they are today. Said another way, this is a tremendous time for innovative and ambitious founders to go out and raise capital and hire teams that can build something meaningful. As they do so, we would encourage them to consider the relationship of their strategies to climate change and economic inclusion. An accretive orientation to these challenges could enable them to tap into significant and growing economic opportunities and to contribute to the solution set at the same time.



The Art of the Possible: Toby Behrmann, Global Parametrics

Toby Behrmann
Head of Innovation & Partnerships, Global Parametrics

Toby Behrmann has spent the past 20 years structuring and deploying financial solutions globally through retail and commercial channels, including digital, business to business and direct. Considered a leading expert in parametrics, his focus is in building markets by improving access through innovative strategy, tactics and technology.

Global Parametrics (GP) is a commercial company with a social mandate — started with funding from the U.K. and German governments to strengthen resilience to extreme weather and natural hazards.

1. Toby, it is great to chat with you. For the benefit of our readers, could you please tell us a bit about yourself and the work being done by Global Parametrics?

Thanks, Andrew, and a pleasure to speak with you. I currently hold the Partnerships and Innovation role at Global Parametrics, as we work to catalyze the use of parametrics as a way to build resilience and close the protection gap.

For the last 20 years I've operated all over the world and across the entire risk transfer supply chain, pioneering methods of pricing, structuring and deploying risk transfer products. I started my career at AIG, ran an MGA and have been involved in start-ups, most recently here at GP.

Founded to crowd risk transfer markets into emerging economies, Global Parametrics has leading expertise in providing parametric extreme weather and natural hazard solutions.

Our technology enables us to rapidly price and structure risk anywhere in the world, and we have access to capacity to underwrite both our own and market products.

Our capital arrangements, wide-reaching access and global product suite put us in a unique position to enable the growth of parametric risk transfer products both in developing countries and other underserved markets.

2. Prior to GP, you were with StoneStep. You obviously have a huge amount of experience in the development of risk transfer solutions for developing markets. Why are you attracted to this area of our industry?

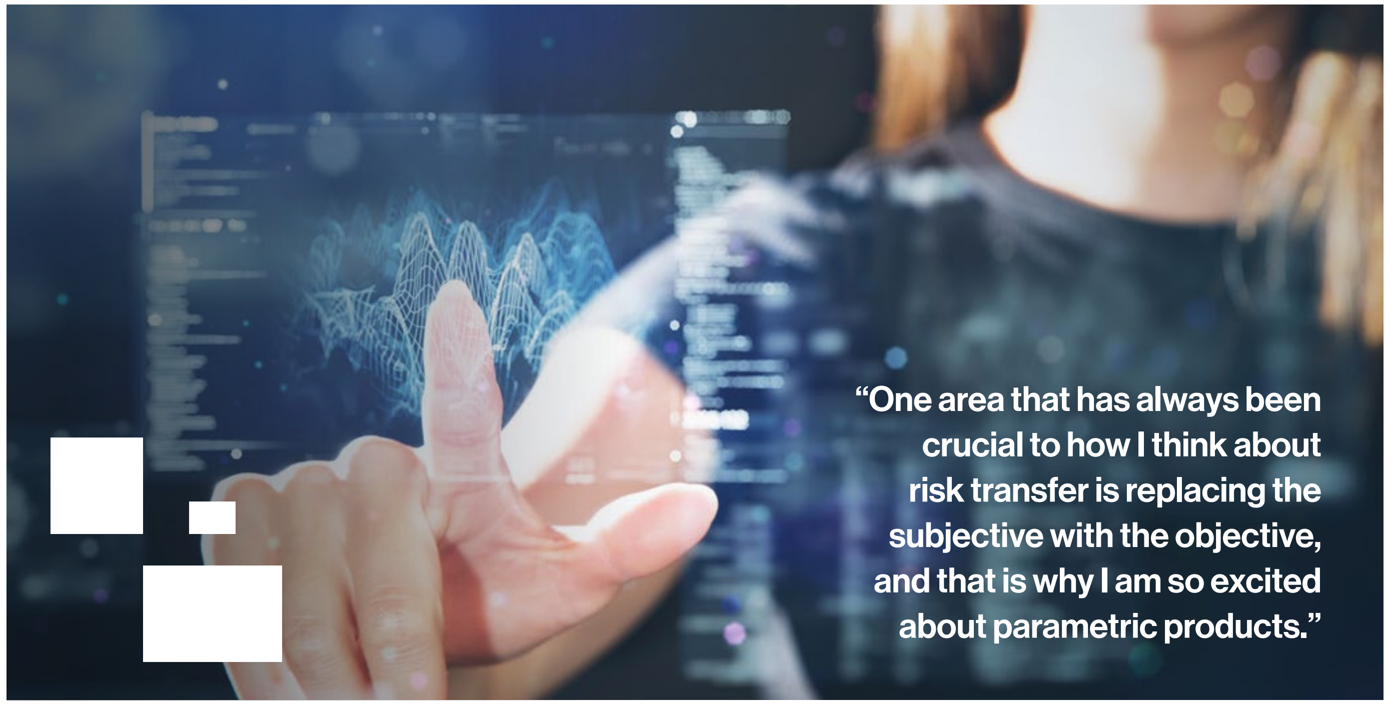
Insurance underpins society; it is as simple as that. At the individual, company or country level, protecting against risk promotes advancement.

Yet globally, outside of places like the U.S., Europe and Japan, insurance penetration is low. The numbers are staggering: Out of approximately an annual $3.3 trillion of non-life insurance premiums, 54% are paid in the U.S. alone. So there are huge opportunities to be had, both in terms of social impact and business growth.

Reducing this "protection gap" is a significant challenge, and one that has always motivated me. I like to open, create and build and have always been attracted to developing markets.

In new markets and for new clients, there is often the view that insurance is complicated, difficult to understand and poor value. For me, the challenge has always been how to change these negative perceptions and create compelling propositions, opening up access to an economic game changer.

> "Founded to crowd risk transfer markets into emerging economies, Global Parametrics has leading expertise in providing extreme weather and natural hazard solutions."



3. To what extent have you seen technology play a role in supporting this potentially transformative iteration of the (re)insurance industry's growth?

I think there is a misconception that the insurance industry is slow to embrace technology.

Technology drives insurance, whether it's the data that enables you to price new risks effectively, the systems that enable you to distribute and administer policies inexpensively or the increasingly sophisticated methods used to deploy capital efficiently.

All three need to come together when you are looking to provide protection in emerging markets. Where there is no loss history, new data sources must be found and analyzed. Where there is no existing delivery infrastructure, digital distribution is key. When there is no legacy, you can start to think of new ways of solving the problems clients have.

One area that has always been crucial to how I think about insurance is replacing the subjective with the objective, and that is why I am so excited about parametric products.

Parametric products are driven by data; they can be distributed digitally and, because they are totally objective, they can be straightforward to underwrite. As you said, this can be transformative.

4. Specifically what types of technology do you think have had the greatest impact?

Insurance is at its heart a trust business, a promise between two people; therefore, any technology that can increase that trust will have impact.

I'm very focused on technology that enables transparency, giving both parties quick and immediate access to the same information. The internet was obviously the start of this, but the explosion in big data, cloud computing and open source, to pick a few buzzwords, has been incredible. To think that from my laptop, for free, I can instantly access historical weather data for any point on the globe is amazing.

The other great impact is technology that enables immediacy and connection. A farmer in the middle of Cambodia can access the same platform as an underwriter in London, bypassing infrastructure that is slow, inefficient and might not even exist. The closer the insurer is to the risk, the more valuable a product can be offered. This benefits all.

The Art of the Possible: Toby Behrmann, Global Parametrics

5. How does Global Parametrics use technology to support its unique value proposition?

Global Parametrics uses technology in two key ways. The first is to utilize cloud computing to dramatically reduce the time and costs incurred to absorb vast amounts of information and turn it into actionable intelligence. Secondly is to use global, open data sets that can be verified and validated by all.

Our platform brings together these climate and geophysical data sets to enable our product team to build, price and settle indices that provide a standard view of risk anywhere in the world, for perils such as tropical cyclone, earthquake, rainfall and drought. We use these indices to build solutions that are customized to a client's unique exposure, and most importantly, are scalable.

As a result, a small company like GP has been able to structure and place parametric solutions in over 50 countries, including areas that traditionally have limited access to formal risk transfer.

6. Global Parametrics has done an incredible job of helping to bring liquidity into some untapped markets. Can you please explain this process and the types of sponsors who are getting behind this?

There is a strong need for extreme weather and natural hazard risk protection globally, and this need is increasing due to climate change and the natural movement of populations and infrastructure to more vulnerable areas.

Only very few countries have a local insurance market that has the expertise or internal financial capacity to underwrite these products, and unfortunately most of the ones without have the greatest need. Without a local market, it is very difficult to bring in outside liquidity (typically in the form of reinsurance), and so when disasters do occur, the economic shock is profound.

Global Parametrics was founded with investments from the U.K. government's Foreign, Commonwealth and Development Office (FCDO) and German Development Bank (KfW), through the InsuResilience Investment Fund and to stimulate the flow of capital into emerging economies and thereby build resilience.

Furthermore, KfW, on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), and FCDO, formed the Natural Disaster Fund (NDF), which has subsequently concluded a risk sharing agreement with Hannover Re.

The NDF, managed by the Global Parametrics team, structures and offers risk-transfer instruments exclusively relating to natural catastrophes and climate risks in developing markets — regions that are disproportionately affected by extreme weather events. The purpose of the NDF is to transfer the disaster-related financial risks of entities in these countries to international reinsurance and capital markets.

As we progress, we are building partnerships with stakeholders in the public, private and third sectors and are gaining increasing support across the entire risk transfer supply chain.

7. This quarterly theme is the future of risk. What are the biggest evolutions/innovations that you have personally observed in this space over, say, the past five years?

I think the biggest evolution is how we are starting to look at risk.

Previously it was in a very reactive way: What do I do once something has happened? Now we can be more proactive: What risks are we exposed to? How can we mitigate? What decisions do we need to take now?

This is driven by the increase of data available and ease of transforming it into meaningful information that can be understood by all. There has been a massive decrease in the asymmetry of information between client and underwriter, and that is an amazing thing.

8. To what extent do you believe our industry, coupled with technology, can provide solutions to the future of risk?

A greater understanding of risk leads to the ability to disaggregate risk. Separating out what risks can be managed, mitigated or must be covered allows solutions to be structured that really fit a client's needs.

Why cover a car against collision risk while it is stationary? What happens with corporate accident policies when staff only come into the office three days a week? How about an insurance policy that pays before an event occurs?

I see a future with insurance solutions rather than policies — flexible, customized products with coverages and benefits that can change constantly as the risk to the coverage holder changes.

The technology is already here, and our industry is perfectly set up to offer such solutions.

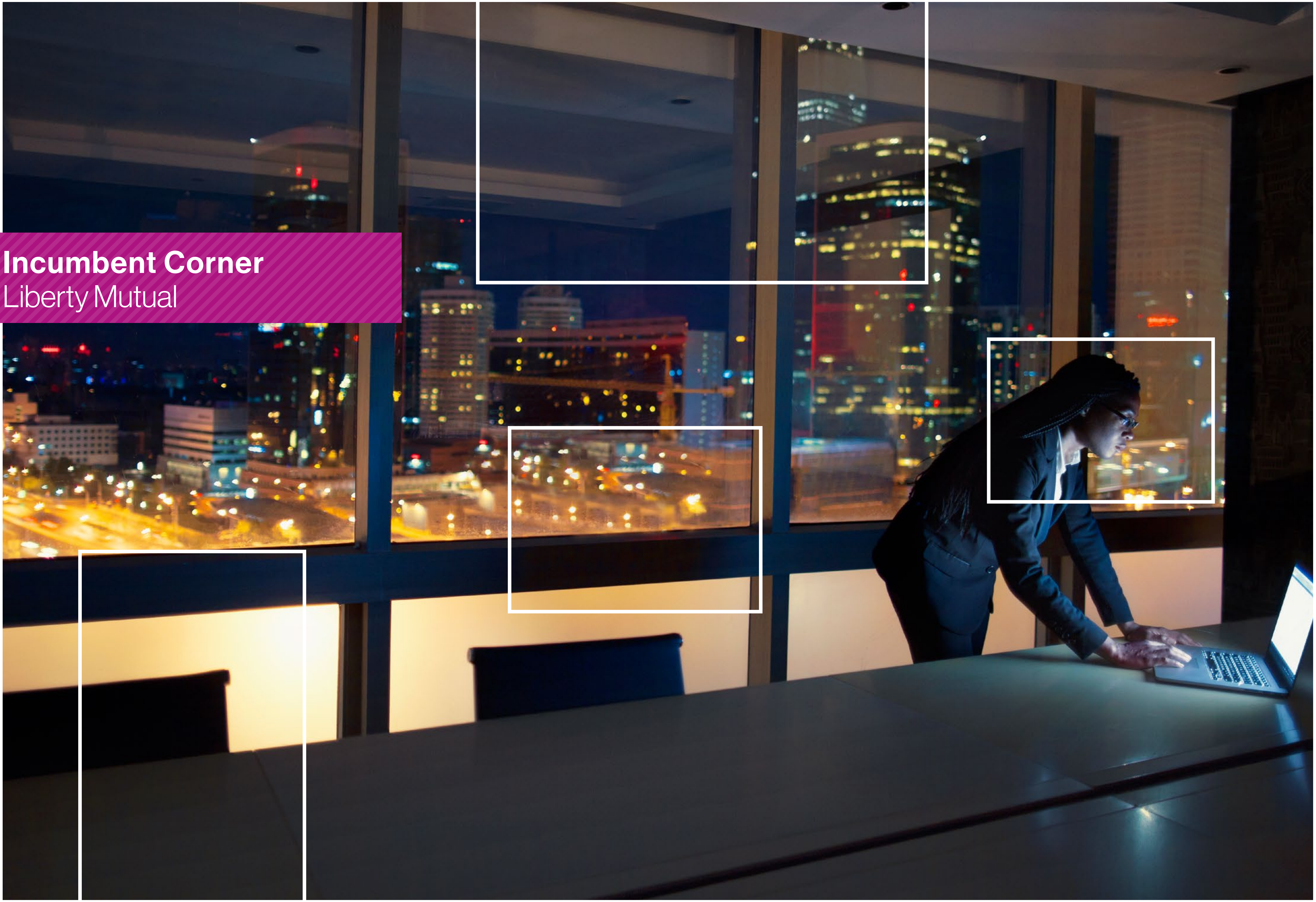
9. What advice would you give an upcoming InsurTech entering the market?

In many industries, start-ups talk about "disrupting" or "rebuilding" the market.

The insurance market is a chain, formed of many links and forged over hundreds of years. The chain works but is rather clunky and needs oiling. So, rather than looking to break the chain, focus on improving the interactions between the links of the chain.

"Oiling" just one of those links can cause significant efficiencies, add additional capabilities and generate massive client value. Then you can leverage the entire chain to massively scale your business — whether in geography, product or client base.

"There has been a massive decrease in the asymmetry of information between client and underwriter, and that is an amazing thing."



Incumbent Corner

Liberty Mutual

Incumbent Corner: Liberty Mutual

In business since 1912 and headquartered in Boston, Massachusetts, today Liberty Mutual is the sixth largest global property & casualty insurer based on 2020 gross written premium. Liberty also ranks 71 on the Fortune 100 list of largest corporations in the U.S. based on 2020 revenue. As of December 31, 2020, the group had $43.8 billion in annual consolidated revenue. Liberty employs over 45,000 people in 29 countries and economies around the world and offers a wide range of insurance products and services, including personal automobile, homeowners, specialty lines, reinsurance, commercial multiple-peril, workers compensation, commercial automobile, general liability, surety and commercial property.

Brendan Smyth
Senior Vice President,
Global Innovation and Insights

Brendan Smyth is senior vice president, Liberty Mutual Global Risk Solutions, Global Innovation and Insights. In this role, he leads Liberty Mutual's mid to large commercial and specialty (re)insurance groups, including trends and insights, strategy, partnerships, its lab and enabling investments alongside Liberty Mutual Strategic Ventures. His team is focused on developing new products and services aligned to strategy and the needs of clients, brokers and employees in a rapidly changing world.

Premal Gohil
Head of Innovation Partnerships & Investments

Premal Gohil leads Innovation Partnerships & Investments at Liberty Mutual's Global Risk Solutions division reporting to Brendan Smyth. He is responsible for leading Liberty's innovation efforts working with InsurTechs, start-ups, academia, technology and data providers on partnerships and enabling investments with the Liberty Mutual Strategic Ventures team.

1. Brendan and Premal, fantastic to have you both join us for this edition of Incumbent Corner. Can you please share with our readers a bit about your background and your current role at Liberty?

(Brendan) I head up innovation for Liberty Mutual's Global Risk Solutions (GRS) group, focused on mid to large commercial (re)insurance business. I've been at the company 19 years, having held positions across the insurance value chain working in marketing, underwriting, claims, reinsurance, finance and strategy.

Like me, many of the folks on my team have come from our businesses and led innovative efforts in the past. This deep business perspective, and meaningful internal and external connections, help us drive new value for our external clients, broker partners and businesses. We do this with strategic focus and a full set of innovation capabilities that enables new value by partnering, investing, buying or building innovation.

(Premal) I lead Innovation Partnerships & Startup Outreach here at Liberty Mutual's Global Risk Solutions' division in our GRS Innovation group. My role is focused on "being outside of the four virtual walls of the office" and in the ecosystem scouting, meeting and enabling new partnerships and investments alongside our dedicated Corporate Venture unit, Liberty Mutual Strategic Ventures. I engage with some of the world's leading InsurTechs and emerging technology and data partners. I look to bring insights, new technology, opportunities and trends back to the core Liberty Mutual business to support our internal teams, broker partners and clients with innovation.

2. How has your current role, and the role of Liberty in general, evolved as the InsurTech space has matured?

(Brendan) It's an interesting question as my prior role included some of our early engagements with InsurTechs.

Back then the state of the InsurTech market was a bit more weighted on tech capabilities than insurance, which led to some important two-way learning. Today we've arrived at a nice balance with industry leaders joining InsurTechs and carriers like Liberty, co-creating solutions with InsurTechs leaning into product market fit. Our focus is to partner to enhance the insurance value chain and create new insurance business models.

Another change is that today we also engage in consortium-based approaches to innovation in areas where it makes sense to develop common tools, like distributed ledger technology or cyber insights, that float all boats. And finally, today our focus includes RiskTech start-ups solving specific risk needs, either in a particular industry or across industries. We see partnerships and investments in these areas as an important evolution for us, and the market. With a breadth of client industries and risks to consider on the commercial insurance side of the house, augmenting our talent base to co-create new solutions is key to success today and will no doubt continue to be in the future.

(Premal) I've been in my current role for nearly three years, and the explosion in venture capital funding and number of start-ups and scale-ups operating across different areas of the (re) insurance value chain has been extraordinary to observe and participate in.

There's notably an increased appetite across the industry to partner and invest with InsurTechs, and as a result we've been able to take some great opportunities.

Liberty Mutual is very keen to continue to push the frontiers of innovation, and we understand this is critical to us remaining relevant to our clients, broker partners and the wider P&C (re)insurance marketplace. We have great support from our executive leadership team and business units around the world to engage, because they see the value InsurTech can add to their operations and targets. That made me and my team a lot busier!

Our first year was focused on discovery — both with our internal teams and the external ecosystem to get a sense of what Liberty Mutual and our clients had appetite for, which spaces were growing in relevance and where we'd be able to add value. Since then, we've become involved in a number of InsurTechs where we see a clear benefit, such a data analytics, cyber, autonomous vehicles, climate, crypto and parametric insurance.

3. What is Liberty's current strategy in supporting InsurTechs?

(Premal) We look to support InsurTechs where it's clear there's a strong strategic fit. That's the ultimate aim. If there isn't a strategic fit with Liberty's overall goals and strategy, we won't do it.

We use the tried-and-tested PIBB (Partner, Invest, Buy and Build) model. Build is typically focused on in-house/internal development, but we do use our Partner lever with InsurTechs to help us to Build propositions (e.g., partnering with a third-party data company to help our data science group build AI/ML models). Liberty Mutual utilizes the Partner, Invest and Buy levers for maximum impact.

We use our Partner lever to experiment with InsurTechs to get a better sense of their capabilities in solving for specific use cases. Beyond that, we're able to use our Invest lever (through our Corporate Venture Capital unit, Liberty Mutual Strategic Ventures) and Buy arm (through our Strategic Acquisitions unit) to take equity positions in those InsurTechs we believe will scale, continue to innovate in areas of interest to us, and add value to our broker partners and clients.

Two of our InsurTech portfolio companies, Apollo Insurance and REIN, are great examples of utilizing our Partner and Invest levers in this way. Apollo is a Canadian InsurTech which we've partnered with and invested in to support our Canadian insurance operations to unlock growth in digital insurance offerings in the SME [small and midsize enterprise] market. REIN is an InsurTech MGA which we've partnered with and invested in to support underwriting in emerging spaces like drone insurance, broader mobility and embedded insurance.

4. To what extent does this mirror Liberty's overall business strategy?

(Premal) Our work in the innovation team is completely aligned with our business strategy. We leverage InsurTech to help provide greater value to brokers, clients and our internal teams. Accordingly, the overall strategy and direction of the business informs some of the spaces we need to continue to push into (e.g., our core business's move to digitize and therefore our work to partner and invest in leading digital platforms and InsurTechs).

Conversely, the business often looks to our team to help inform where they should be playing in the future as we see trends up close and can get the business involved in (e.g., the energy transition from fossil fuels to renewables and the new markets and premium opportunities this is opening up for our industry).

5. This particular Quarterly InsurTech Briefing is focused on the future of risk. How does Liberty view this evolving space, and to what extent do you think technology has a role to play here?

(Brendan) As the sixth largest global P&C writer, innovation is key to our understanding the evolving risk landscape and how to help our broker partners and clients better manage and mitigate those exposures. The future of risk is a key piece of our innovation thesis, which has three lenses:

- **The future of risk:** where macro trends are changing the risk landscape
- **The future of industry:** where our clients' needs are evolving with those risks, and they're also harnessing them to create new businesses
- **The future of (re)insurance:** where our business model must evolve to meet our clients' needs of today and tomorrow

These translate into **strategic domains** for us where we focus on industry verticals and cross-cutting risks and (re)insurance business models.

Technology plays a powerful role on both sides of the equation, often enabling the macro shift that our clients are harnessing to create new business but also acting as an enabler for us to create new risk solutions.

Mobility is a good example, where connected, electric, shared and autonomous vehicles are now a reality due to the exponential change in technology enabling them. To keep pace with market needs here, we've created innovative offerings to support our clients and broker partners, and often leverage technology to do so. Whether it be enhanced claims experience for our TNCs clients via APIs or a new view of machine vision risk from our partner/investment in Edge Case Research, the role technology plays is critical.

6. What role do you think technologically enabled insurance solutions have to offer society as the risks around us continue to change and, in some cases, worsen?

(Brendan) (Re)insurance has always been a mission-driven industry, leveraging technology to answer society's needs.

As systemic risks like pandemics, cyber events and climate proliferate and the market looks for solutions, it's instructive to look at the past. One of my favorite quotes is Mark Twain's "History doesn't repeat itself, but it often rhymes."

We've been faced with many challenging risks before that first appeared as uninsurable. Take the rise of the first property insurer in the 1600s where fire jumping from wooden structure to wooden structure made every event a catastrophe, like the Great Fire of London. Thinking differently, carriers leveraged modern technology of the day to create the first fire brigades to protect the buildings they insured, creating a better risk environment.

Flash forward to the evolution of auto insurance, where safety became less of a focus by the 1950s. Liberty saw the gaps in these technologies, which led to a concept car with 60 new safety features, helping influence Detroit's designs with society in mind. A good deal of these ultimately found their way into production.

Today's increase in systemic risks requires us to pick up the proverbial torch and bring new risk solutions to market that focus on resiliency.

7. What technological solutions has Liberty put to work in order to tackle future of risk as it relates to issues such as climate, cyber, changing behavior and the like?

(Brendan) These are key strategic focus areas for us, where we start with the unmet need and then consider how best to approach new solutions.

We have a full set of innovation capabilities allowing us to partner, invest, buy and build innovations. The decision on which lever to pull considers things like speed, expertise and unfair advantage. We often partner to build new solutions, augmenting our talent with start-ups, MGAs, reinsurers and brokers to name a few, with the client at the center. We're very much open for business on these fronts. Where there's strong fit, we may also invest to accelerate a partnership, or invest for long-term strategic learning.

"Liberty Mutual is very keen to continue to push the frontiers of innovation, and we understand this is critical to us remaining relevant to our clients, broker partners and the wider P&C (re)insurance marketplace."

We've been actively focused on developing risk solutions in areas like cyber, climate, emerging science and reputation risk for a few years now. On the cyber front, we were a founding member of CyberAcuview focused on enhancing innovation and also partnering with companies like Security Scorecard to provide services to midsize companies.

As climate risk continues to grow, we've partnered and invested in Jupiter Intelligence to provide a long-term/scenario view of risk for our internal teams and clients. For example, we believe supporting construction and property clients in making decisions around more resilient and hardened infrastructure is a key to reducing total cost of risk, where a $1 of resilient investment equates to a $4 return. Relationships like this, as well as climate-focused economic modeling firms, help augment views from existing cat models fine-tuned for our industry.

Our relationship with Praedicat allows us to stay on top of science risks, where we provide insights as a trusted advisor to clients and broker partners around emerging and emerged risks like EMF, phthalates and PFAS.

As we have witnessed a large shift from tangible to intangible assets —with risks like reputation making up a big part of company value in an always-on, hyper-connected digital world — we've partnered with Willis Towers Watson and Polecat to deliver new risks solutions. New AI-backed services to scan media for crisis events and mitigate them, alongside loss of revenue, is allowing the market to be resilient in the face of risk.

8. As it relates to risk, what are your perspectives on the future direction of InsurTech? What do you see as the next "big thing"/breakthrough?

(Premal) If you look at the InsurTech space five to six years ago, there was this pervasive fear that these new, shiny, fast-growing start-up businesses would completely disrupt the P&C (re)insurance space. Of course with the benefit of hindsight, it's not transpired that way. Effective collaboration between incumbents and InsurTechs has been the overriding dynamic.

It's clear that "risk" is not going away. In fact, the world is becoming more complex, more dynamic and in some ways more challenging to understand and mitigate against. This year has shown us just how difficult it's been for incumbent carriers to properly understand cyber risk exposures, and with the accelerating digitization of the world, that issue is only going to become bigger.

Therefore, InsurTechs that can help risk carriers better understand and manage cyber risk exposures will continue to be in huge demand.

In terms of the next "big thing," I'm extremely interested in how the insurance and InsurTech space develops effective risk solutions for the crypto/digital assets space. At time of writing, the market value of all known digital assets is approaching $2 trillion, and yet the insurance risk capacity there to protect that value is less than 0.1% of that. The space is continuing to grow, and beyond typical property coverages to protect value, the casualty exposures (e.g., D&O [directors' and officers'] cover for executives at cryptocurrency exchanges) is another huge potential growth area. Carriers, brokers and InsurTechs collaborating here could create enormous value for this emerging space.

(Brendan) I think we'll continue to see more corporate venturing, with greenfield start-ups coming out of incumbents, backed in partnership with InsurTechs and other industry stakeholders. I also think we'll see more M&A via PE roll-ups, InsurTechs joining forces and carrier acquisitions.

9. Finally, what advice would you give an upcoming InsurTech entering the market?

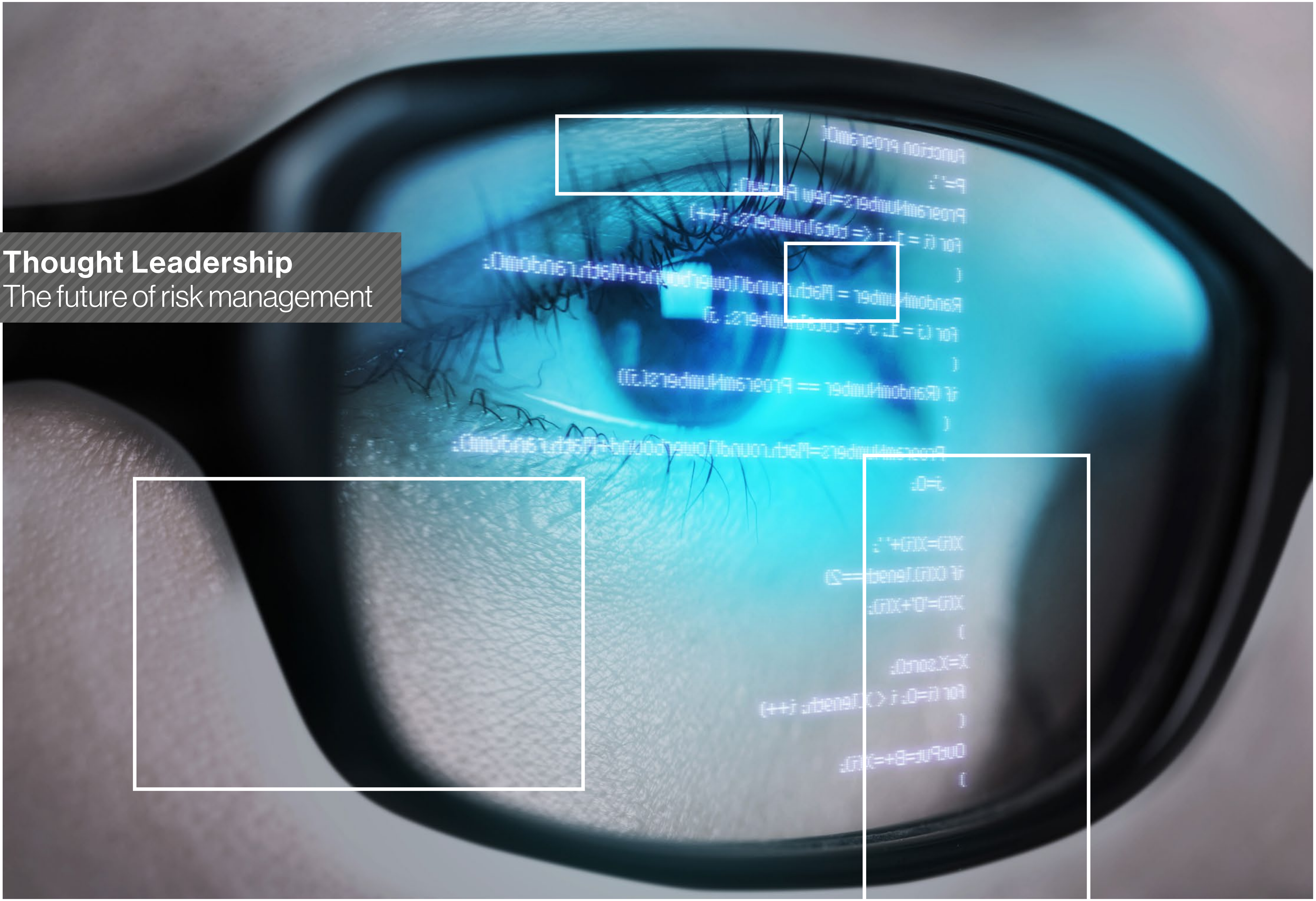
(Premal) Be 100% clear on your value proposition and how it aims to solve a pain point for your customers. I see so many "me too" companies that just fail to really understand the pain point they're trying to solve for.

A good example is the aerial imagery space. Historically, it's been about using computer vision technology to collect data about a property's condition and the surrounding environment. What we're now seeing is a higher-order level of insights and analytics from that data which can used to support underwriting risk selection, pricing and the claims adjusting process.

There are lots of opportunities to add value across the (re) insurance value chain, so make network connections in the industry (including reaching out to me and my team) and learn about where the industry could be missing a great opportunity to solve a significant pain point. We always enjoy those types of conversations!

"As it relates to risk and the future direction of InsurTech, I think we'll continue to see more corporate venturing, with greenfield start-ups coming out of incumbents, backed in partnership with InsurTechs and other industry stakeholders."

Thought Leadership
The future of risk management



Thought Leadership: The future of risk management

This quarter, Julian Roberts shares his thoughts on the future of risk management and the increased impact that technology is having on our industry.

Julian Roberts
Managing Director, Alternative Risk Transfer Solutions,
Willis Towers Watson

Gone are the days when "Acts of God" were often excluded from insurance policies. Today's risk managers might struggle to understand whether a loss-causing event might be attributed to the wrath of a disobliging deity or, equally likely, by man-made interventions.

The nature of risk — its scope, frequency and severity — is evolving. Barely two years ago the prospect that a global pandemic might bring the world's economy to a screeching halt was — quite literally — a matter of science fiction. The current climate emergency was dismissed as scaremongering only a few short years ago yet now is a driving narrative among risk buyers and sellers alike.

The interdependence of risk is now greater than ever: Supply chains are increasingly complex, and just-in-time scheduling leads to there being very little tolerance in the failure of any component in the system. Further, almost every part of the supply chain is reliant on functioning technology, cloud availability and internet connectivity. So technology becomes both an emerging source of risk and equally the provider of powerful solutions that were previously not available.

Compelling evidence of the innovation and utility of technology-powered solutions is nowhere better found than in the rise of the use of parametric solutions. Parametric — or index-based — products differ from more traditional indemnity-based contracts in that they are settled by reference to the value of a pre-agree index or measurement only, and not on the measurement or calculation of actual loss or damage that has occurred.

Such contracts offer effective and practicable protection against otherwise intractable risk management challenges such as non-damage business interruption losses. Without the occurrence of physical damage, the indemnity language of conventional insurances precludes a response. Yet severe economic loss is often attributed to the occurrence of a severe event that may, or typically may not, cause actual damage. A well-designed parametric contract can fulfill this need.

Technology and the data it provides combined with parametric solutions broadens the scope of risk transfer solutions to the next level. New sources of data, from satellites to the cloud to the internet of things, enable parametric solutions to be designed and deployed where more traditional insurances are simply not feasible.

Neither is it the case that technology-driven solutions are the sole preserve of the world's most advanced economies and sophisticated users. Take, for example, the case of smallholder farmers in east African countries where prolonged drought conditions result in crop failure and the malnourishment, or even death, of their cattle. To deliver crop and livestock insurance policies to these farmers might be possible, but for practical and logistical reasons it is simply not feasible or cost effective to do so. The remote and often scattered location of these growers makes traditional inspections or loss adjustment impossible.

Yet satellite data are readily — even freely — available, and so it is possible to keep track remotely on the daily status rainfall, soil moisture and crop health during the critical periods for crop and pasture growth. Local insurers are seldom able to support a widely spread rural network to reach effectively. Without the need for a cumbersome and costly traditional insurance infrastructure, these products can be distributed and settled by means of existing "final mile" processes: cooperatives, extension services and aid agencies.

"The interdependence of risk is now greater than ever... Almost every part of the supply chain is reliant on functioning technology, cloud availability and internet connectivity. So technology becomes both an emerging source of risk and equally the provider of powerful solutions that were previously not available."

Technology, too, provides the solution to support the financial flows and, critically, for the timely settlement of any payouts due. Mobile banking is widely adopted, which enables transfers to be made, if due, within days of the end of the policy period. Blockchain technology may, too, be applied to improve the speed and efficiency of these processes. Such speed of response confers exceptional value to this style of risk management in which rapid liquidity may make the difference between recovery and resilience, or otherwise.

Perhaps the deepest pools of data ever compiled now belong to the largest internet services companies: Amazon, Alphabet and Apple, to name but three. The data owned by such conglomerates is yet to fulfill its undoubted destiny in the field of risk management.

This nexus of enhanced data enabled by technology, linked to smart new insurance solutions, paves the way for boundless new creativity. In parallel, the modeling and interrogation of the sometimes very large data sets arising provides insights into risk and leads to quantification that was previously neither fully understood nor manageable.

Transaction Spotlight

Key transactions from this quarter

Transaction Spotlight: reThought

Tech-enabled commercial flood risk managing general agent reThought Insurance completed a $15.5 million Series A investment round in May 2021. Founded in 2017 by insurance and insurance technology professionals, reThought has reimagined flood insurance. The company will use this round's funds to help fuel its rapid growth in the flood insurance market, including research and development, technology and expanding its sales team. Streamlining operations is also at the forefront, as reThought's goal is to automate the entire company.

About reThought

reThought focuses on writing flood coverage for commercial risk and high-net-worth properties. Because its proprietary model convergence method is so accurate, the company is able to write high-profile risks with confidence, such as major transit operations and parking garages. reThought also writes business interruption insurance and will work around the National Flood Insurance Program's (NFIP's) limit cap of $500,000 by covering up to tens of millions of dollars.

Since its 2017 inception, reThought has experienced rapid growth in gross written premiums and a remarkable loss ratio, with manageable losses even through true catastrophic events. Partnerships include two leading reinsurance backers, top commercial and residential property insurance carriers, and two of the top 10 largest wholesale brokers in the U.S. reThought believes that flood is "a peril of inches" and that as a result private companies can struggle to price this risk class accurately. reThought's proprietary "model convergence" technology, which pulls from over 1,000 data points per risk, precisely prices flood risk, allowing the company to cover risks that other companies might inaccurately write, such as structures over water, underground parking, municipal transit systems and other highly engineered structures.

The market

Currently, 85% of commercial and residential properties in the U.S. do not have flood coverage. Flood premiums in the U.S. average $7 billion, yet losses are reported at $15 billion annually with the potential to rise due to the impact of climate change. The market is expected to reach $41 billion by 2024.

Series A investment round

reThought's Series A financing was led by Telstra Ventures, with participation from Hudson Structured Capital Management, doing (re)insurance business as HSCM Bermuda, and ArcTern Ventures. Existing venture funds invested in the InsurTech include Menlo Ventures, ManchesterStory and Streamlined Ventures.

Climate change

To quote flood insurance adequately, it takes a vigilant company willing to spend the necessary time to develop the resources to properly underwrite exposures in potential high-risk areas. The ability to adapt to a rapidly changing climate landscape and manage the financial impacts of flooding caused by climate change is an endeavor the company sees as integral to helping people and businesses manage various climate outcomes.

"This round of funding will further our ability to provide the best underwriting from the most comprehensive sources of data available for our capacity providers, and ultimately help us meet our goal of closing the gap for U.S. flood in ways that others have not done and cannot do, which puts us in a really unique position in the flood market."

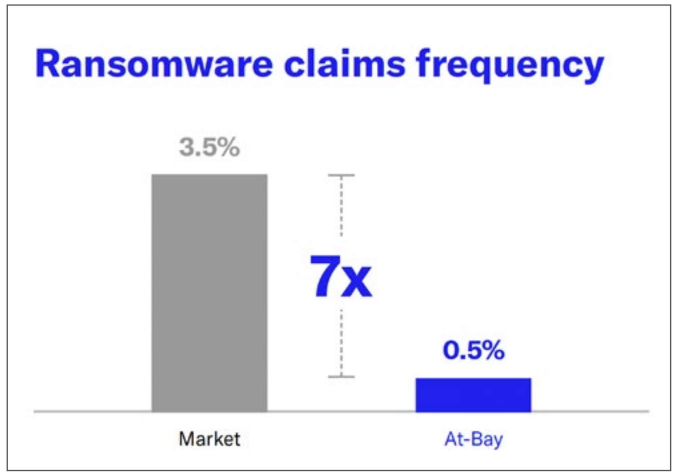
Cory Isaacson, CEO, reThought

Transaction Spotlight: At-Bay

At-Bay, the insurance company for the digital age, combines world-class technology with industry-leading insurance expertise to empower businesses to thrive in the digital world. At-Bay recently raised a $185 million Series D round, valuing the company at $1.35 billion.

About At-Bay

At-Bay offers comprehensive cyber and tech errors and omissions insurance policies to mid-market small and midsize businesses, targeting businesses with revenue up to $2 billion. The company sells policies exclusively through wholesale brokers, which provide efficient access to more than 60% of the U.S. cyber market. At-Bay leverages its proprietary active risk monitoring technology to scan for cyber threats throughout the life of every policy and employs an experienced in-house claims team to handle claims. In Q2 of 2021, the company surpassed $160 million in annual recurring premium on 800% year-over-year premium growth while maintaining an industry-leading loss performance. At-Bay underwrites as a managing general agent through HSB Specialty Insurance Company, rated A++ by A.M. Best Company and part of Munich Re.



Overcoming ransomware

In July 2021, At-Bay published a report, "Overcoming Ransomware: A Blueprint for Thriving in a Digital World," on its approach to managing ransomware, including mitigation strategies and portfolio insights. The key insight into how At-Bay has managed ransomware is the company's active risk monitoring: a combination of frequent scans to detect vulnerable businesses and an in-house security team to help businesses and their brokers resolve issues before attackers can exploit them. Employing active risk monitoring has helped At-Bay achieve a ransomware claims frequency that is seven times lower than the industry average.

Series D investment round

At-Bay's Series D financing was co-led by Icon Ventures and Lightspeed Venture Partners, with participation from existing investors, including Khosla Ventures, M12, Acrew Capital, Qumra Capital, the HSB fund of Munich Re Ventures, entrepreneur Shlomo Kramer and Glilot Capital. The $185 million Series D marks the company's third round in 18 months and brings its overall funding to $272 million.

"The cyberinsurance industry is experiencing an unprecedented market adjustment. At-Bay was founded specifically to meet cyber risk head-on with a redesigned insurance operating system that enables our company to respond and adapt in real time. As a result, we have a more resilient and profitable portfolio and an approach for managing risk accumulation."

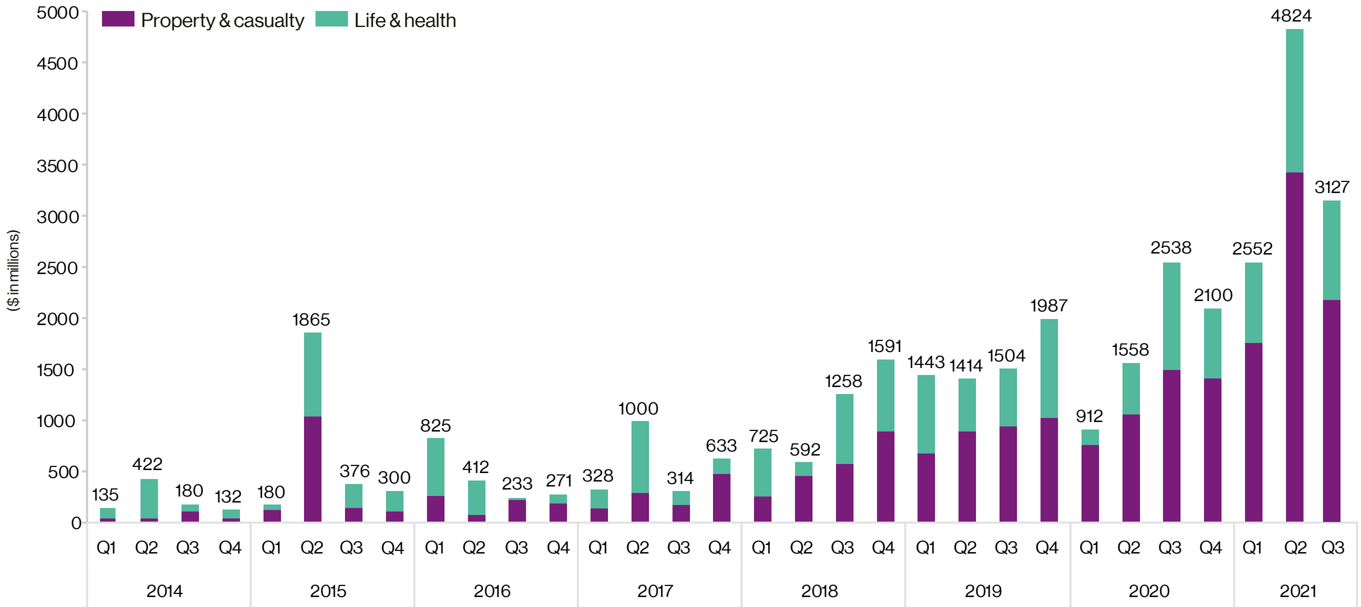
Roman Itskovich,
Co-Founder and Chief Risk Officer, At-Bay

The Data Center

The Data Center

InsurTech by the numbers

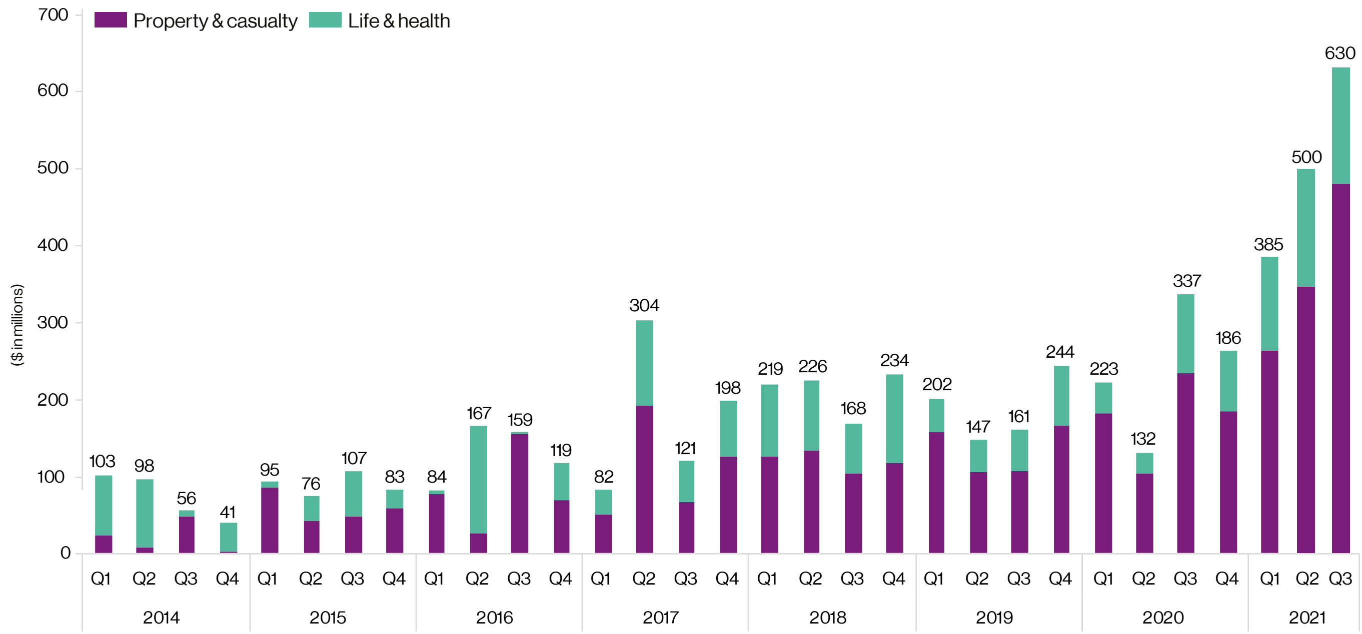
Quarterly InsurTech funding volume – all stages



Deal count

P&C	10	7	16	8	17	13	16	21	44	18	33	29	26	37	29	45	44	47	40	41	58	49	52	40	72	54	74	75	107	119	80
L&H	9	15	14	15	11	19	15	20	16	17	6	13	17	32	21	11	24	26	17	23	29	20	31	35	24	20	30	28	39	43	33

Quarterly InsurTech funding volume – early stage

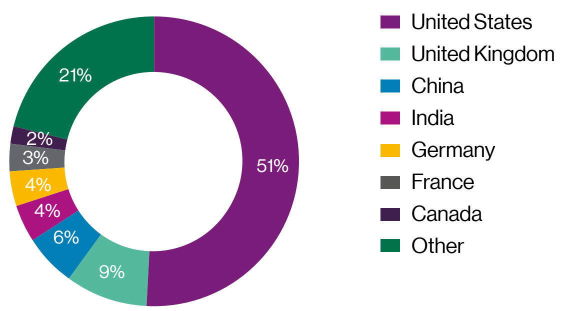


Deal count

P&C	5	3	10	6	13	7	9	16	35	9	25	21	18	25	21	25	32	31	22	25	36	27	35	20	35	25	42	34	69	71	41
L&H	6	8	11	8	5	9	11	16	6	10	3	10	11	20	13	7	15	20	11	15	20	12	19	16	14	6	17	14	18	22	16

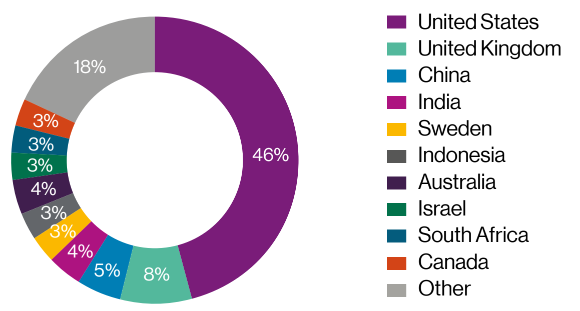
Quarterly InsurTech transactions by target country

2012 – Q3 2021



2012 – Q3 2021 Transactions: 2,106

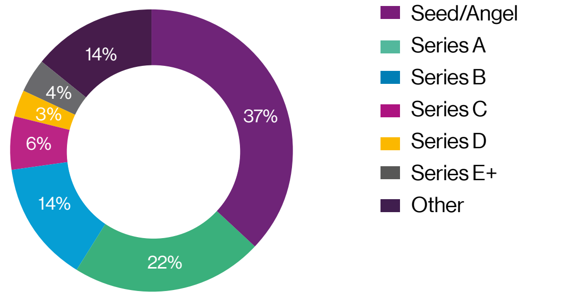
Q3 2021



Q3 2021 Transactions: 113

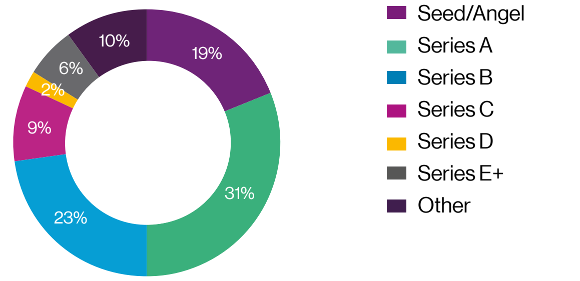
Quarterly InsurTech transactions by investment stage

2012 – Q3 2021



2012 – Q3 2021 Transactions: 2,106

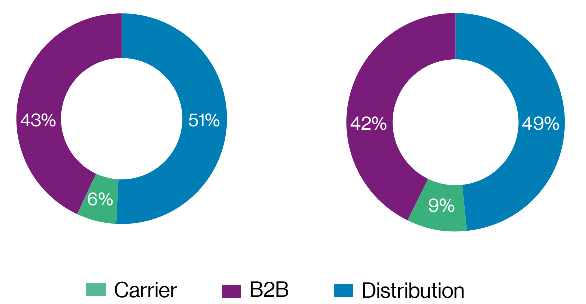
Q3 2021



Q3 2021 Transactions: 113

P&C InsurTech transactions by subsector

2012 – Q3 2021 | Q3 2021

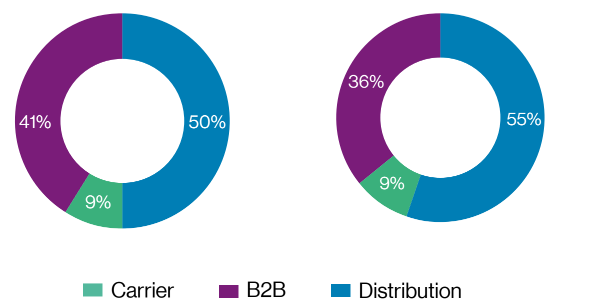


2012 – Q3 2021 P&C Transactions: 1,371

Q3 2021 P&C Transactions: 80

L&H InsurTech transactions by subsector

2012 – Q3 2021 | Q3 2021



2012 – Q3 2021 L&H Transactions: 735

Q3 2021 L&H Transactions: 33

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/1/2021	Inshur	35	45.9	• Jerusalem Venture Partners • MTech Capital • Munich Re Ventures • Viola Group	• Inshur provides auto insurance for TLC (New York) and private hire drivers (U.K.). The mobile app allows drivers to quote, purchase and service an insurance policy via mobile in minutes.
7/1/2021	bolttech	180	210	• Activant Capital • Alpha Leonis Partners • B. Riley Financial • Dowling Capital Partners • EDBI • Mundi Ventures • Pacific Century Group • Tarsadia Investments • Tony Fadell	• bolttech is an international digital protection and insurance business with a vision to connect people with more ways to protect the things they value. bolttech's model integrates four InsurTech capabilities into one ecosystem, including device protection, digital brokerage, technology services and digital general insurance.
7/2/2021	Digit Insurance	200	423.49	• A91 Partners • Anil Arora • Anushka Sharma • Cornerstone • Faering Capital • Fairfax Financial Holdings • IIFL AMC • Kunal Shah • Sachin Pillai • Saujanya Shrivastava • Sequoia Capital India • Susheel Tejuja • TVS Capital • Virat Kohl • Undisclosed Investors	• Digit Insurance is a tech-driven insurance start-up based in Bengaluru, India. The company seeks to build simple and transparent solutions, focusing on car, travel, mobile, jewelry and bicycle insurance.
7/6/2021	Assurly	7.1	7.1	• Cleverton Ventures • Guillaume Sarkozy • Jean-Pierre Begon-Lours • Patrick Lucas • Vincent Gentil	• Assurly is a Paris-based provider of mortgage insurance on a mobile app.
7/7/2021	Ignatica	1.75	8.75	• AFG Partners • Artesian Capital Management • Chinaccelerator • Innovation and Technology Venture Fund • Lingfeng Capital • SOSV	• Ignatica provides digital automation solutions for insurance industries and is based in Hong Kong.
7/8/2021	Coincover	9.2	9.7	• Angels Invest Wales • Ashley Cooper • Avon Ventures • CMT Digital • Development Bank of Wales • DRW Venture Capital • Element Ventures • FinTech Collective • Hambro Perks • InsurTech Gateway • Paul Teather • Phil Buck • Susquehanna Private Equity Investments • Tech Nation Fintech • Valor Equity Partners • Volt Capital	• Coincover provides a security and insurance product, built on blockchain infrastructure, that reduces the risks of holding and using cryptocurrencies. Digital currency and cryptocurrency investments no longer need to be taken offline to keep them fully secure. The company protects digital currencies, allowing users to safely access it in real time, and keeping it secure at all other times.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/8/2021	Lula	18	37.04	• Andrew Wilkinson • Bill Ackman • Flexport • Florida Funders • Founders Fund • Khosla Ventures • NextView Ventures • Plug and Play Ventures • Shrug Capital • SoftBank Group • Steve Pagliuca	• Lula offers insurance and software for companies to help reduce their costs, increase their efficiency and improve their customer experience.
7/9/2021	DealerPolicy	110	191.5	• 3L • GS Growth • Hudson Structured Capital Management • InsurTech NY • MTech Capital • Paycheck Protection Program	• DealerPolicy enables car-buying customers the opportunity to purchase insurance by connecting them with licensed insurance agents while at the dealership or after they arrive home with their car. The company delivers these benefits through a combination of partnerships with car dealers, a growing insurance carrier network and access to licensed agents.
7/14/2021	Nsure	2.71	12.91	• Reliance Global Group	• Nsure is a licensed online insurance agency that uses a proprietary algorithm and data analytics to recommend the right amount of coverage to consumers.
7/14/2021	Cape Analytics	44	75	• Aquiline Capital Partners • Brewer Lane Ventures • Cincinnati Financial • CSAA Insurance Group • Data Collective • Formation 8 • Hudson Structured Capital Management • Khosla Ventures • Lux Capital • Montage Ventures • Nephila Capital • Pivot Investment Partners • Promus Ventures • Rev1 Ventures • Rich Boyle • State Auto Labs • State Farm Ventures • The Hartford • XL Innovate	• Cape Analytics uses AI and geospatial imagery to provide instant property intelligence for buildings across the United States so insurers can more accurately assess a property's risk and value.
7/14/2021	Collective Benefits	8.3	12.6	• Delin Ventures • Facebook Accelerator • InsurTech Gateway • NFX • Stride.VC • Undisclosed Angel Investors	• Collective Benefits is an insurance technology platform that provides benefits for gig economy workers. It works with both companies with on-demand workforces and individual freelancers to provide bundled insurance products.
7/19/2021	Jones	12.5	20.3	• 500 Accelerator • 500 Global • Camber Creek • DivcoWest • Ground Up Ventures • Hetz Ventures • JLL Spark • Khosla Ventures • MetaProp • Paycheck Protection Program • Rudin Management • Sage • WeWork	• Jones automates the insurance compliance process and provides contractors with Pay-As-You-Go insurance so they can comply on the spot. The company is helping independent contractors across the U.S. to overcome the liability insurance hurdle, bid for any project and cut their business expenses.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/20/2021	Lovys	–	24.46	• Adevinta Ventures • Business France • Google Startup Growth Lab • Heartcore Capital • MAIF Avenir • MS&AD Ventures • NewAlpha • Plug and Play Accelerator • Portugal Ventures • PWC Scale • RAISE Ventures • Techstars	• Lovys is an aggregated monthly subscription service for its users' insurance needs.
7/21/2021	Ctrl Technologies	2.3	2.3	• Grindstone Accelerator • Naspers • Santam	• Ctrl Technologies offers a car and household insurance advising app that enables users to request and accept quotes from different insurers, amend coverage and get advice.
7/22/2021	Next Insurance	–	881	• American Express Ventures • Battery Ventures • capitalG • FinTLV • Founders Circle Capital • G Squared • Group 11 • Markel • Mitsui Sumitomo Insurance • MS&AD Ventures • Munich RE • Munich Re Ventures • Nationwide Ventures • Redpoint Ventures • Ribbit Capital • TLV Partners • Zeev Ventures	• Next Insurance operates as a small business insurance company. Next Insurance provides customized policies for all small business needs through a technology-first approach.
7/26/2021	Pineapple	3.4	5.36	• ASISA ESD Fund • Entrepreneurs for Entrepreneurs Africa • Go Global Africa • Google for Startups Accelerator • Hartford InsurTech Hub • Lireas Holdings • Old Mutual • VentureClash • Vunani	• Pineapple allows users to insure their stuff and their car in the snap of a picture. It aims to maximize value, affinity and simplicity in the insurance market by rearranging the way insurance is conducted.
7/27/2021	Agentero	13.5	13.6	• BrokerTech Ventures • Financial Venture Studio • Foundation Capital • Mundi Ventures • Plug and Play Accelerator • Two Culture Capital • Union Square Ventures	• Agentero provides a platform for independent insurance agents. The company's software gives them access to predictive pipelines and data analytics tools.
7/27/2021	At-Bay	185	272	• Acrew Capital • Glilot Capital Partners • Icon Ventures • Khosla Ventures • Lightspeed Venture Partners • LocalGlobe • M12 • Munich Re Ventures • Qumra Capital • Shlomo Kramer	• At-Bay is an insurance company for the digital age. At-Bay combines security and insurance expertise to deliver better insurance products and security services to its clients.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/28/2021	Friss	65	84.1	• Accel-KKR • Aquiline Capital Partners • BlackFin Capital Partners • Plug and Play Accelerator • VentureClash	• Friss uses proprietary analytics software to provide solutions in the fields of fraud, risk and compliance for the insurance industry.
7/28/2021	Synchronosure	3.8	9.22	• Undisclosed Investors	• Synchronosure is a digital underwriting and professional services business built to leverage the convergence of technology and insurance through applications of proprietary artificial intelligence and predictive analytics capabilities, combined with recognized expertise in insurance and reinsurance industries.
7/29/2021	Flock Cover	17	20.74	• Anthemis • Dig Ventures • Downing Ventures • Lloyd's Lab • London Business Angels • London Co-Investment Fund • Plug and Play Ventures • R/GA IoT Venture Studio • Seed+Speed Ventures • Social Capital • Tech Nation Fintech	• Flock is an InsurTech start-up building a big-data-driven risk intelligence platform for drones.
7/29/2021	Omocom	5.25	9.25	• Inventure • Lightbird Ventures • Luminar Ventures • MSM • Mundi Ventures	• Omocom provides an on-demand, short-term, micro-insurance sharing platform. Its data-driven products reduce risk, increase sales, and offer you and your users a world-class customer experience.
8/3/2021	Nsure	6	12.91	• Reliance Global Group • Undisclosed Investors	• Nsure is a licensed online insurance agency that uses a proprietary algorithm and data analytics to recommend the right amount of coverage to consumers.
8/4/2021	Naked	11	14.6	• Hollard Investments • Naspers • Yellowwoods	• Naked uses an artificial intelligence based algorithm to bring down the cost of car insurance, by removing the business process such as call centers. The fraud algorithms permit certain claims to be approved instantly, reducing inconvenience and lowering the cost of premiums.
8/5/2021	FintechOS	10	230	• Draper Esprit • Earlybird Venture Capital • Gap Minder • GECAD Group • International Finance Corporation • LAUNCHub Ventures • Microsoft ScaleUp • OTB Ventures	• FintechOS offers a digital framework for financial organizations to engage in digital transformation. It specializes in developing and redesigning the customer experience in banking and insurance.
8/5/2021	RenewBuy	10	84.2	• Amicus Capital Partners • Apis Partners • Evolvence Capital • IIFL AMC • Lok Capital • Mount Nathan Advisors • New York Life Investments	• RenewBuy is an online platform for auto insurance that is powered by proprietary technology whose algorithm seeks to find the lowest premiums across insurers and shows customized results.
8/9/2021	Fuse	30	30	• CE Innovation Capital • CreditEase • Emtek Group • EV Growth • eWTP Capital • GGV Capital • Golden Gate Ventures • Heyokha Brothers • Saratoga Capitale • Saratoga Investama Sedaya • SMDV	• Fuse offers insurance products on its platform to cover vehicles, property, travel, health, term life and critical illness as well as digital insurance like gadgets, cargo liabilities and credit default insurance, among others.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
8/9/2021	Vesttoo	6	6	• Axon Partners Group • FinTech Innovation Lab • Guy Ben-Artzi • Hanaco Venture Capital • IBM Alpha Zone • Longevitytech.fund • NVIDIA Inception • Plug and Play Ventures • REDDS Capital • Yariv Gilat	• Vesttoo is a risk-hedging and alternative reinsurance platform that specializes in the longevity risk market.
8/9/2021	Virtual i Technologies	2	2.7	• Falcon Network • FinTech Hive Accelerator • Multicultural Innovation Lab • Undisclosed Angel Investors • Undisclosed Investors	• Virtual i Technologies is an InsurTech risk assessment company that enables insurance carriers to remotely see and assess any risk using its proprietary technology.
8/10/2021	Jerry	75	103	• Bow Ventures • Brandon Krieg • Dan Bragiel • Ed Robinson • FundersClub • Goodwater Capital • Highland Capital Partners • Immad Akhund • Jay Vijayan • Johnson Cook • Jon McNeil • Josh Buckley • Kamerra • Liquid 2 Ventures • Oriza Ventures • Park West Asset Management • Paul Bragiel • Plug and Play Ventures • SV Angel • Timothy Sheehan • Y Combinator • Zillionize Angel	• Jerry takes shopping and comparing quotes from all major insurance companies, reminding users of renewals, completing required paperwork to switch policies and everything in between.
8/18/2021	TrustLayer	15.1	21.9	• Abstract Ventures • BoxGroup • Broker Tech Ventures • Craft Ventures • Graham Company • Heffernan Insurance Brokers • Holmes Murphy • InsurTech NY • M3 • NFP Ventures • Precursor Ventures • Propel Venture Partners • PruVen Capital • Sure Ventures	• TrustLayer helps companies collect, verify and manage certificates of insurance to increase compliance and decrease risk. The TrustLayer platform makes certificate management workflows more efficient and secure by using blockchain technology to track documents between companies.
8/18/2021	Sorcero	10	13.5	• CityRock Venture Partners • InsurTech NY • Leawood Venture Capital • MassChallenge • Plug and Play Accelerator • WorldQuant Ventures • Undisclosed Investors	• Sorcero provides natural language processing solutions, knowledge bases, decision support and compliance for the life sciences and insurance industries.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
8/19/2021	Honey Insurance	2.14	14.04	• ABN Group • AGL Energy • Anthony Eisen • Apex Capital • Graham Mirabito • Jamie McPhee • Larry Diamond • Metricon • Mirvac Real Estate • Peter Tonagh • PEXA • Royal Automobile Club of Queensland • Shadforth Financial Group • Tim Fung	• Honey Insurance is a smart home insurance company designed for modern life. Honey offers homeowners, renters and landlords insurance powered by technology.
8/19/2021	High Definition Vehicle Insurance	32.5	48.5	• 8VC • Autotech Ventures • Daimler Trucks North America • Lightbank • McVestCo • Munich Re Ventures • Qualcomm Ventures • Weatherford Capital Management	• HDVI brings high-quality telematics and an integrated suite of software and support to fleets included within the cost of a competitive insurance policy.
8/20/2021	Digisure	13.1	13.12	• Alumni Ventures Group • Clocktower Technology Ventures • Fabio Rosati • Hartford InsurTech Hub • Morado Venture Partners • TrueNorth Companies • Valor Equity Partners • Xplorer Capital	• Digisure's technology platform provides Insurance-as-a-Service to digital platforms that have trust, safety or liability factors. Its APIs provide identity authentication, generate risk profiles for participants, develop risk scoring, provide a decision engine for underwriting rules and provide dynamic pricing for individual transactions.
8/23/2021	Pier	20	47.07	• BTG Pactual • Canary VC • Mercado Livre • Monashees+ • Raiz Investimentos	• Pier is a digital insurance distribution platform.
8/25/2021	Sayata Labs	17	23.5	• Elron Electronic Industries • Kamet • OurCrowd • RDC • Team8 Capital • Vertex Ventures	• Sayata offers a digital platform that specializes in helping insurance brokers and carriers with the quoting process.
8/26/2021	Digit Insurance	16	423.49	• A91 PartnersFaering Capital • Anil Arora • Anushka Sharma • Cornerstone • Fairfax Financial Holdings • IIFL AMC • Kunal Shah • Sachin Pillai • Saujanya Shrivastava • Sequoia Capital India • Susheel Tejuja • TVS Capital • Virat Kohli • Undisclosed Investors	• Digit Insurance is a tech-driven insurance start-up based in Bengaluru, India. The company seeks to build simple and transparent solutions, focusing on car, travel, mobile, jewelry and bicycle insurance.
8/26/2021	Meet Parker	–	–	• Twenty7Tec	• Meet Parker is a technology firm that has developed an AI Chatbot for the mortgage, insurance and property sectors.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Total	Investor(s)	Description
8/26/2021	Shangyong Technology	–	–	▪ China Merchants Group ▪ Cloud Angel Fund ▪ CRCM Ventures ▪ Fanchuang Capital ▪ Gopher Asset Management ▪ Marathon Venture Partners ▪ Matrix Partners China ▪ Mount Morning Capital ▪ Tencent AI Accelerator	▪ Shangyong Technology is a big data technology company dedicated to promoting the development of insurance technology.
8/28/2021	Hala	5	5	▪ 500 Global ▪ Entree Capital ▪ EQ2 Ventures ▪ Global Founders Capital ▪ Hambro Perks ▪ Mubadala Investment Company	▪ Hala offers car insurance in Dubai and all of U.A.E. Hala was founded in 2018 with the goal of using blockchain to reconcile payments between auto insurance firms in the U.A.E.
8/30/2021	G-HCARE	20	20	▪ Bertelsmann Asia Investments ▪ China Creation Ventures ▪ UNITY VENTURES	▪ G-HCARE is a brand of Pingfuyan Healthtech that provides B2B health insurance data and management platforms for insurance companies.
8/30/2021	OneDegree	28	70.7	▪ Alibaba Group ▪ BitRock Capital ▪ Cathay Venture ▪ Cyberport ▪ Sun Hung Kai & Co ▪ Undisclosed Investors	▪ OneDegree is a digital insurance platform that enables consumers to purchase and manage their insurance policies. Its back end enables advanced analytics and automation of traditionally manual process across claims processing, policy management and customer service.
8/30/2021	Slope Software	2	3.12	▪ Alerion Ventures ▪ Charlotte Angel Fund ▪ Cofounders Capital ▪ MetLife Digital Accelerator ▪ Tech Square Ventures	▪ Slope Software offers an actuarial financial projection modeling software that can create variables, build models and stack assumptions.
8/30/2021	Telivy	0.13	0.13	▪ Y Combinator	▪ Telivy offers a digital platform that aims to provide cyberinsurance solutions to SaaS platforms and insurance agencies.
8/31/2021	Open	22.66	43.32	▪ AirTree Ventures ▪ Alium Capital ▪ Five V Capital ▪ Holland Insurance ▪ Holland Investments ▪ Latitude ▪ Movac ▪ Richard Enthoven ▪ Seven West Media	▪ Open is a financial services company building the most powerful platform for insurance today.
8/31/2021	Covie Systems	0.13	0.24	▪ Y Combinator	▪ Covie Systems makes insurance data more accessible and easier to work with by empowering the next class of innovative builders to craft a better experience around insurance, eliminate inefficiencies and effectively manage risks.
8/31/2021	Gofido	3.5	4.34	▪ Jula ▪ Undisclosed Investors	▪ Gofido is an InsurTech company allowing customers to customize their own insurance plan to fit their needs.
9/1/2021	Blueprint Title	16	25.18	▪ Avanta Ventures ▪ Bull City Venture Partners ▪ Forte Ventures ▪ Gaingels ▪ Greenlight Re Innovations ▪ Greycroft ▪ Liberty Mutual Strategic Ventures ▪ Mouro Capital ▪ Mucker Capital ▪ Paycheck Protection Program ▪ Tribeca Early Stage Partners	▪ Blueprint Title develops an insurance platform to streamline the residential real estate closings for buyers, sellers and real estate service professionals. The company's platform offers a modern approach to title insurance and closing by providing communication, document review, transparent pricing and easy loan processing, enabling homebuyers to understand the closing process, homebuilders to save money and hassle, and mortgage bankers to simplify closing and make proactive communication.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Total	Investor(s)	Description
9/1/2021	Insurify	100	131.65	▪ Fort Ross Ventures ▪ Giorgos Zacharia ▪ Hearst Ventures ▪ MassMutual Ventures ▪ Moneta VC ▪ Motive Partners ▪ MTech Capital ▪ Nationwide Mutual Insurance Company ▪ Nationwide Ventures ▪ Rationalwave Capital Partners ▪ Toyota Insurance Management Solutions ▪ Viola Group ▪ Viola Growth	▪ Insurify offers an insurance quotes comparison platform and virtual insurance agent. Insurify provides a personalized quote list and performs an apples-to-apples comparison of competitive carriers.
9/2/2021	Lula	14.73	37.04	▪ Andrew Wilkinson ▪ Bill Ackman ▪ Flexport ▪ Florida Funders ▪ Founders Fund ▪ Khosla Ventures ▪ NextView Ventures ▪ Plug and Play Ventures ▪ Shrug Capital ▪ SoftBank Group ▪ Steve Pagliuca	▪ Lula offers insurance and software for companies to help reduce their costs, increase their efficiency and improve their customer experience.
9/7/2021	Jetty	23	63.5	▪ BoxGroup ▪ Citibank ▪ CreditEase ▪ Farmers Insurance Group ▪ Flourish Ventures ▪ Graph Ventures ▪ K5 Ventures ▪ Khosla Ventures ▪ LeFrak ▪ MetaProp ▪ Red Swan Ventures ▪ Ribbit Capital ▪ Social Capital ▪ Solon Mack Capital ▪ SV Angel ▪ Valar Ventures ▪ Undisclosed Investors	▪ Jetty is a financial services company that designs products and solutions that help people reach goals faster by removing obstacles and risks. Currently, Jetty focuses on solving the problem of renting a home with updated finance and insurance products that solve major headaches for consumers and landlords. Offered in combination or a la carte and accessible over any digital device, Jetty products are widely available across the United States.
9/8/2021	Marshmallow	85	116.2	▪ Hedosophia ▪ Investec ▪ Outrun Ventures ▪ Passion Capital ▪ SCOR ▪ Simmons & Simmons	▪ Marshmallow aims to use big data and algorithms to underwrite and provide more competitive rates for car insurance, with a focus initially on the U.K.
9/9/2021	Insuritas	0.7	10.7	▪ Jack Henry & Associates ▪ Undisclosed Investors	▪ Insuritas provides insurance agencies outsourcing solutions for financial institutions allowing them to own a complete insurance agency without investing the capital required to build or buy an agency, or the inherent operational risks. Products include auto, home, business, life, medical, pet, warranty, AD&D and credit life insurance.

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Q3 2021 InsurTech transactions – P&C

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
9/9/2021	Lula	3.71	37.04	• Andrew Wilkinson • Bill Ackman • Flexport • Florida Funders • Founders Fund • Khosla Ventures • NextView Ventures • Plug and Play Ventures • Shrug Capital • SoftBank Group • Steve Pagliuca • Undisclosed Investors	• Lula offers insurance and software for companies to help reduce their costs, increase their efficiency and improve their customer experience.
9/10/2021	Vouch Insurance	60	188.35	• 500 Global • Allegis Group • AllegisNL • Index Ventures • Redpoint Ventures • Ribbit Capital • Silicon Valley Bank • SiriusPoint • Sound Ventures • SVB Capital • Y Combinator	• Vouch Insurance offers start-ups with the technology, advice and risk-mitigating tools they need to thrive. The company offers an insurance product that integrates with business tools.
9/13/2021	ForMotiv	6	7.7	• DreamIt Ventures • Plug and Play Accelerator • Plug and Play Ventures • PROOF • Vestigo Ventures	• ForMotiv is an end-to-end platform for reducing online risk and improving customer experience that measures end-user behavioral biometrics in real time to detect future outcomes like fraud, delinquency, profitability and abandonment as users engage with digital applications.
9/13/2021	Five Sigma	12	12	• 83North • F2 Capital • iGlobe Partners • O.G. Tech • Pipeline Capital Partners • Xceedance	• Five Sigma is developing and delivering an end-to-end claims resolution platform for the P&C personal and commercial market. The platform addresses all aspects of claims management, including claim intake/First Notice of Loss (FNOL), coverage, liability, financials (reserving and payments), recovery and quality assurance — all designed to improve claims accuracy; enhance policyholders' experience; ensure compliance and operational productivity; and make claims-data readily available within an insurer's ecosystem for AI/ML, risk selection and other purposes.
9/13/2021	Influunt	0.12	0.12	• Techstars	• Influunt provides water and flood risk intelligence to insurance, government and asset owners using cutting-edge satellite data and artificial intelligence for reducing losses and building climate resilience.
9/14/2021	Jupiter Intelligence	–	34.53	• Data Collective • Elemental Excelerator • Energize Ventures • Gordon and Betty Moore Foundation • Ignition Partners • Liberty Mutual Strategic Ventures • Lloyd's Lab • MPower Partners • MS&AD Ventures • Nephila Capital • QBE Ventures • SYSTEMIQ	• Jupiter provides data and analytics services that aim to predict and manage risks from weather and temperature changes, sea-level rise and storm intensification.
9/14/2021	Envelop Risk Analytics	130	136	• Alpha Intelligence Capital • Dymon Asia Ventures • MS Amlin • Plug and Play Accelerator • SoftBank Group	• Envelop Risk offers cyber underwriting services to insurance and reinsurance firms by utilizing an artificial intelligence-based simulation model.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
9/15/2021	Corvus Insurance	–	161	• .406 Ventures • Aquiline Capital Partners • Bain Capital Ventures • FinTLV • Hudson Structured Capital Management • Insight Partners • Obvious Ventures • SiriusPoint • Telstra Ventures	• Corvus Insurance provides software solutions. The company offers insurance software applications for commercial insurance brokers and buyers.
9/15/2021	Ascend	5.5	5.5	• Ben Rubin • BoxGroup • Brandon Leonardo • Chad Nitschke • First Round Capital • FirstMark Capital • Gordon Wintrob • Joshua Motta • Max Bruner • Max Mullen • Paul VanderMarck • Phillip Hodges • Sam Hodges • Spike Lipkin • Susa Ventures • Tanner Hackett	• Ascend develops financial infrastructure software designed to support commercial insurance. The company's platform includes payment and finance solutions.
9/16/2021	Fuse	–	30	• CE Innovation Capital • CreditEase • Emtek Group • EV Growth • eWTP Capital • GGV Capital • Golden Gate Ventures • Heyokha Brothers • Saratoga Capital • Saratoga Investama Sedaya • SMDV	• Fuse offers insurance products on its platform to cover vehicles, property, travel, health, term life and critical illness, as well as digital insurance like gadgets, cargo liabilities and credit default insurance, among others.
9/16/2021	Foxquilt	6.32	9.82	• AmTrust Financial Services • Extreme Venture Partners • Luge Capital • Side Door Ventures	• Foxquilt is a financial technology company focused on using big data and machine learning to empower social groups to save on home, small business and auto insurance.
9/16/2021	Previsico	2.41	2.41	• Foresight Group • Foresight Williams Technology EIS Fund • Lloyd's Lab • Loughborough University • Midlands Engine Investment Fund • Plug and Play Accelerator	• Previsico models flooding in real time by using the latest weather predictions to make street-level flood forecasts.
9/20/2021	Just Auto Insurance	8	15.15	• CrossCut Ventures • ManchesterStory Group • Paycheck Protection Program • Plug and Play Ventures • Robert Smith • Western Technology Investment	• Just Auto Insurance provides prepaid, pay-per-mile car insurance.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – P&C

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
9/21/2021	bolttech	30	210	• Activant Capital • Alpha Leonis Partners • B. Riley Financial • Dowling Capital Partners • EDBI • Mundi Ventures • Pacific Century Group • Tarsadia Investments • Tony Fadell	• bolttech is an international digital protection and insurance business with a vision to connect people with more ways to protect the things they value. bolttech's model integrates four InsurTech capabilities into one ecosystem, including device protection, digital brokerage, technology services and digital general insurance.
9/22/2021	BOXX Insurance	10	11	• Cyber Mentor Fund • Lloyd's Lab • SixThirty • Zurich Insurance Group	• BOXX Insurance is a fully integrated cybersecurity and insurance solution for small to midsize businesses.
9/22/2021	Unfrauded	–	–	• Brinc	• Unfrauded offers a platform that allows companies to manage car insurance claims faster and more efficiently to detect fraud.
9/24/2021	billy	2.1	2.1	• MetaProp	• billy is an insurance and risk management platform built for construction and real estate.
9/27/2021	Energetic Insurance	7	13.95	• Clocktower Technology Ventures • Congruent Ventures • DCU FinTech Innovation Center • OneValley • Powerhouse • Powerhouse Ventures	• Energetic Insurance offers EneRate Credit Cover, a trade credit insurance product to protect solar developers and asset owners against repayment risk in power purchase agreements.
9/28/2021	Cover Genius	72.5	90.5	• Belfer Family • G Squared • Jasper Tans • King River Capital • Leap Capital • Marinya Capital • Regal Funds Management • Sompo Holdings • Undisclosed Investors	• Cover Genius offers a "full-stack" insurance distribution platform for mobility, retail, travel and shared-economy partners. The company's technologies include XCover, a distribution platform providing coverage for any line of insurance in any country, language and currency, and XClaims, an API for instant payment of approved claims, handling tens of thousands of instant claim payments in several currencies via a variety of payment methods.
9/28/2021	Coalition	205	520	• Deep Nishar • Durable Capital Partners • Felicis Ventures • General Atlantic • Greenoaks Capital Management • Greyhound Capital • Hillhouse Capital Management • Index Ventures • Ribbit Capital • Sam Altman • T. Rowe Price • Valor Equity Partners • VY Capital • Whale Rock Capital Management	• Coalition is an insurance and risk management company that provides insurance coverage, free cybersecurity tools and expert claims response to help small and medium businesses identify and assess risk, prevent attacks and losses before they occur, and recover when all else fails. The company offers a full suite of security apps, including automated threat and intelligence alerts, DDoS mitigation, security benchmarking, ransomware protection, patch management and more. Coalition offers enhanced coverage for systems failure, systems integrity, bodily injury and property damage, and social engineering.
9/28/2021	Anansi	2.03	2.03	• F10 FinTech Incubator & Accelerator • Octopus Ventures	• Anansi is an insurance platform for high-growth SMEs with an international supply chain of physical goods.
9/29/2021	Buckle	60	111	• Assurant Ventures • Eldridge • Eos Venture Partners • Hudson Structured Capital Management • Volery Capital Partners	• Buckle provides rideshare and auto insurance policies. Buckle provides active rideshare drivers complete coverage under one policy no matter how much they drive or how many rides they have in a month.

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Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
9/29/2021	Hedvig	45	68.52	• Anthemis • Cherry Ventures • Commerz Ventures • D-Ax • Jonas Kamprad • Mathias Kamprad • Nicklas Storakers • Nineyards Equity • Novax • Obvious Ventures • Philian Invest • Sophia Bendz • Sven Hagstromer • Tacito Partners	• Hedvig is a Swedish homeowners insurance provider that offers a mobile app aimed at simplifying the way users report damage and receive compensation.
9/29/2021	PolicyStreet	6	8.74	• Altara Ventures • Auspac • Cradle Fund • Gobi Partners • KK Fund • pitchIN Equity • Spiral Ventures	• PolicyStreet is a content aggregator and insurance technology company that sells insurance policies, including life, disability, auto, home insurance and more.
9/30/2021	Homee	17	51.87	• Activate Capital • Bialla Venture Partners • Deepwork Capital • Desjardins • Element Partners • Engage Venture • Ferguson Ventures • Florida Funders • Forte Ventures • Hartford Investment Management Company • Home Depot • Liberty Mutual Strategic Ventures • Morningside • Paycheck Protection Program • Plug and Play Accelerator • State Farm Ventures • The Hartford	• Homee is an on-demand property maintenance service that provides customers with instant access to electricians, plumbers, HVAC technicians and handymen from a mobile app.
9/30/2021	Yuanbao Technology	–	110	• Baika Venture Capital • CITIC Ventures • Future Capital • Hillhouse Capital Management • KunYuan Asset • Qiming Venture Partners • Raymond • Tianjin Qingyan Lushi Investment Management • Turing Capital • TusStar • Zhongguancun Development Group • Zhongjiao Dingxin	• Yuanbao Technology provides internet security products and solutions for insurance companies.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – L&H

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/1/2021	Osmind	15	17.2	• 20|20 Fund • Adrian Aoun • Alice Zhang • Cloud Ventures • Future Ventures • General Catalyst • Jeffery Leiden • Jonathan Hirsch • Joshua Kushner • Offline Ventures • Pear VC • Tiger Global Management • What If Ventures • Y Combinator	• Osmind develops practice management and monitoring software to help mental health professionals deliver care to at-risk underserved populations. It provides anonymized insights for pharma/insurance companies to ensure that treatments are effective.
7/6/2021	Wagmo	12.5	15.62	• Clocktower Technology Ventures • Ethos Angel Investment Fund • Female Founders Fund • Harlem Capital • MassChallenge • Revolution Ventures • Techstars • The Fund • Vestigo Ventures	• Wagmo is a monthly membership plan for pet insurance and routine care.
7/7/2021	Democrance	–	1.3	• Eos Venture Partners • F-Horizon • Fincluders Startup Challenge Amman • Global Ventures • Hala Ventures • Jabbar Internet Group • Seedstars • Seedstars World • TURN8 • Veridian Ventures	• Democrance aims to make insurance available to a wider population by working as a strategic partner and an enabler of growth for both insurance companies and mobile network operators.
7/7/2021	Assured Allies	18.3	22.5	• Core Innovation Capital • ERA Capital Partners • Harel Insurance Investments & Financial Services • LionBird Venture Capital • Plug and Play Accelerator • Wilton Re Holdings	• Assured Allies helps insurers reduce future payouts by delivering and financing AI-driven support programs proven to reduce and delay the need for long-term care services.
7/9/2021	Insurello	17.46	29.08	• Björn Melinder • Bo Mattsson • DHS Venture Partners • Eva Redhe • Inventure • Johan Siwers • Lars Bergstrom • Lars Lindgren • Luminar Ventures • Nordstjernan • Per Emanuelsson • Schibsted Growth • Wave Ventures	• Insurello proactively educates people about their insurances and manages as well as maximizes their claims through a simple digital solution.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – L&H

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
7/14/2021	YuLife	70	86.6	• Anthemis • Creandum • Eurazeo • Latitude • LocalGlobe • MMC Ventures • Notion Capital • OurCrowd • Reinsurance Group of America • RGAx • Target Global	• YuLife provides a holistic employee benefits and rewards package, including life insurance, for SMEs as well as larger firms. The YuLife wellbeing app enables employees to carry out activities such as walking or meditation, being rewarded with air miles, vouchers and gift cards from partner brands, including online retailers Amazon and ASOS.
7/15/2021	Medpay	1.2	1.26	• Entrepreneur First • growX ventures	• Medpay is an AI-powered platform connecting primary healthcare network to insurers for cashless claims in real time.
7/20/2021	Employment Hero	102.53	161.93	• AirTree Ventures • AMP New Ventures • Insight Partners • OneVentures • Salesforce Ventures • SEEK	• Employment Hero makes online human resources software for companies. The software combines functions like payroll, employee benefits and retirement, employment contracts, accounting, and more on a single web app. The company also offers employees a marketplace for services like health and insurance, mobile phone plans, gym membership discounts, etc.
7/21/2021	Ethos Technologies	100	406.5	• Accel • Arrive Ventures • Downey Ventures • General Catalyst • Glade Brook Capital • Goldman Sachs • Google Ventures • Kevin Durant • RGAx • Robert Downey Jr. • Roc Nation • Sequoia Capital • Shawn Carter • Silicon Valley Bank • Smith Family Circle • SoftBank Group • Stanford University • Thirty Five Ventures • Will Smith	• Ethos specializes in predictive analytics and data technology to provide life insurance policies. The application process takes minutes, and there no medical exams for most applicants, as well as no commissioned agents.
7/27/2021	Cobee	16.57	19.27	• Abac Nest • Balderton Capital • Bstartup • Chris Bouwer • Encomenda Smart Capital • Lanai Partners • Plug and Play Accelerator • ScaleUp Spain • Speedinvest • Target Global	• Cobee develops an online platform that automates and simplifies employee benefits management by allowing employees to choose among meals, transportation, childcare, training and medical insurance.
7/28/2021	Life by Spot	15	23.6	• GreatPoint Ventures • Montage Ventures • MS&AD Ventures • Mutual of Omaha Bank • Paycheck Protection Program • Plug and Play Ventures • Silverton Partners	• Life by Spot offers short-term life insurance for a suite of activities with immediate policy approval through SPOT's mobile application.

Note: Blue font denotes current round investors.

The Data Center

Q3 2021 InsurTech transactions – L&H

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
7/30/2021	Catch	12	25.58	▪ 10X Capital ▪ Crosslink Capital ▪ Indicator Ventures ▪ Khosla Ventures ▪ Kindred Ventures ▪ Nyca Partners ▪ Paycheck Protection Program ▪ Taglit Ventures ▪ Urban Innovation Fund ▪ Y Combinator	▪ Catch offers a personal benefits platform, offering tax withholding, retirement plans, health insurance and more all integrated in one place. It serves the people who don't have access to employer benefits, including freelancers, contractors, gig workers, founders and full-time employees, with inadequate benefits plans.
7/30/2021	Ringmaster	5	10	▪ Edison Partners	▪ Ringmaster Technologies' healthcare expertise and technological applications improve connectivity and enable administrative efficiencies.
8/4/2021	Yolo	2.96	13.39	▪ Banca di Piacenza ▪ Be Group ▪ CRIF ▪ Gattai Minolo Agostinelli & Partners ▪ Generali Italia ▪ Intesa Sanpaolo ▪ Mansutti ▪ Miro Ventures ▪ Net Insurance ▪ Neva Finventures ▪ Primo Ventures	▪ Yolo has built a platform that enables consumers to activate microinsurance products in real time and pay-per-use.
8/5/2021	ottonova	47.38	140.71	▪ btov Partners ▪ Debeka ▪ Earlybird Venture Capital ▪ HV Capital ▪ SevenVentures ▪ STS Ventures ▪ Tengelmann Ventures ▪ Vorwerk Direct Selling Ventures ▪ Vorwerk Ventures ▪ Undisclosed Investors	▪ ottonova is a digital provider of both private health insurance and supplementary insurance.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – L&H

		Funding (US$M)			
Date	Company	Round	Total	Investor(s)	Description
8/10/2021	Gusto	175	691.12	▪ 137 Ventures ▪ Aaron Levie ▪ Aaron Patzer ▪ Acrew Capital ▪ Adam Nash ▪ A-Grade ▪ Alexis Ohanian ▪ Brainchild Holdings ▪ capitalG ▪ Charlie Cheever ▪ Clara Shih ▪ Cota Capital ▪ Cross Creek ▪ Data Collective ▪ Dave Goldberg ▪ David Sacks ▪ Dharmesh Shah ▪ Dragoneer Investment Group ▪ Drew Houston ▪ Durable Capital Partners ▪ Ed Baker ▪ Elad Gil ▪ Emergence Capital Partners ▪ Emerson Collective ▪ Fidelity Investments ▪ Franklin Templeton ▪ Friends & Family Capital ▪ Gail Goodman ▪ General Catalyst ▪ Generation Investment Management ▪ Glynn Capital Management ▪ Google Ventures ▪ Jared Leto ▪ Jawed Karim ▪ Jeremy Stoppelman ▪ Jerry Yang ▪ John Suh ▪ Josh Silverman ▪ Justin Rosenstein ▪ Karen Mills ▪ Kevin Hartz ▪ Kevin Systrom ▪ Kleiner Perkins Caufield & Byers ▪ Kris Duggan ▪ Larry Augustin ▪ Marco Zappacosta ▪ Matt Mullenweg ▪ Matt Rogers ▪ Max Levchin ▪ MSD Capital ▪ Obvious Ventures ▪ Patrick Collison ▪ Pear VC ▪ Phil Libin ▪ Ribbit Capital ▪ Rothenberg Ventures ▪ Ryan Holmes ▪ Salesforce Ventures ▪ Sands Capital ▪ Sherpalo Ventures ▪ Signatures Capital ▪ Slow Ventures ▪ Steve Loughlin ▪ T. Rowe Price ▪ Tien Tzuo ▪ Tobias Lutke ▪ Trip Adler ▪ Troy Carter ▪ WME Ventures ▪ Y Combinator	▪ Gusto is an online platform that consolidates a company's payroll system, benefits information and HR in one place.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – L&H

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
8/19/2021	Vbao Technology	–	–	• Holch Capital • JCP Capital • Mingrun Guangju Investment • Sands Capital • YeePay • Yunhe Partners	• Vbao Technology is an insurance technology company that provides insurance fund management solutions for insurance companies.
8/20/2021	Lifepal	9	9	• ATM Capital • Cathay Innovation • Hustle Fund • Insignia Ventures Partners • ProBatus Capital	• Lifepal is an online platform that aggregates insurance options for those living in Indonesia.
9/2/2021	Sunday	45	75	• Aflac Innovation Partners • LINE Ventures • Quona Capital • SCB 10X • Siam Commercial Bank • Tencent Holdings • Vertex Growth • Vertex Ventures SE Asia • Z Venture Capital	• Sunday is a fully integrated sales and services InsurTech company that uses artificial intelligence and digital platforms to offer personalized insurance products and services that suit all types of individual and business risks. Sunday calls itself a "full-stack" InsurTech and says it handles everything from underwriting through policy distribution. Its current offerings include vehicle and travel insurance that can be purchased online. It also offers Sunday Health for Business, a healthcare coverage program for enterprises. It also works with partners to provide subscription-based smartphone programs.
9/3/2021	The Carevoice	–	12.2	• Apis Partners • Artesian Capital Management • Chinaccelerator • DNA Capital • Haitao Capital • LUN Partners Capital • Ping An Cloud Accelerator • SOSV	• The Carevoice is a health InsurTech platform bringing extensive healthcare experience to the communities in China. The company provides insurers with SaaS membership services solutions to improve customer engagement.
9/7/2021	Baofu Tongcheng	–	–	• Crystal Stream • Hongdao Capital • Long Hill Capital • MindWorks Ventures • SIG Asia Investments	• Baofu Tongcheng, with the product, Quanchijian, is a dental health management and insurance company that provides insurance, finance, medical, and online and offline retail and operation systems and solutions.
9/8/2021	Nova Benefits	10	11	• AL Trust • Ashish Goyal • Bessemer Venture Partners • Better Capital • Multiply Ventures • Nikhil Chopra • SAI Global Assurance • Sumit Maniyar • Titan Capital • Vikram Jit Singh Chaatwal	• Nova Benefits is a corporate health insurance platform.
9/13/2021	Rey Electronic Systems	1	1	• Trans-Pacific Technology Fund	• Rey is a health and life insurance provider on a mission to provide quality insurance services to promote the wellbeing of its members.
9/14/2021	Friday Health Plans	100	340.68	• Colorado Impact Fund • Eduardo Cruz • Leadenhall Capital • Peloton Equity • Vestar Capital Partners • Undisclosed Investors	• Friday Health Plans is a healthcare management company purposely built for today's health insurance environment. The company focuses on overall simplicity to offer low prices so more people can afford health insurance.

Note: Blue font denotes current round investors.

Q3 2021 InsurTech transactions – L&H

Date	Company	Funding (US$M) Round	Funding (US$M) Total	Investor(s)	Description
9/14/2021	Sproutt	26	38	• Falcon Edge Capital • Google Startup Growth Lab • Guardian Life Insurance Company of America • Harel Group • Moneta VC • MoreTech Ventures • Raptor Group • State of Mind Ventures	• Sproutt develops an AI-powered platform for life insurance purchases. The company's platform matches individuals with life insurance policies.
9/20/2021	Near Space Labs	13	14.6	• Civstart • Crosslink Capital • Leadout Capital • Toyota Ventures • URBAN-X • Wireframe Ventures	• Near Space Labs uses drones to take photos of terrain from the stratosphere for cities, construction sites, insurance companies and anyone who needs location data.
9/21/2021	Chapter	17	17	• Core Innovation Capital • Health2047 • Maverick Ventures • Narya Capital • Susa Ventures • XYZ Ventures	• Chapter offers a digital platform where users can compare insurance and medicare options and aims to help users find coverage for the low costs.
9/22/2021	Centivo	51	119	• Alumni Ventures Group • B Capital Group • Bain Capital Ventures • Bessemer Venture Partners • Company • Company Ventures • Define Ventures • F-Prime Capital • HarbourVest Partners • Ingleside Investors • Jim Foreman • Ken Goulet • Kevin Hill • Maverick Ventures Israel • Nassau Street Ventures • Oxeon Partners • Rand Capital	• Centivo operates as a self-funded health plan built specifically for employers and their employees and families. Centivo targets zero healthcare trend and improved healthcare outcomes by rewarding members and providers for smart choices and actions while delivering an exceptional member experience. Centivo serves as a health plan or third-party administrator (TPA) for employers and partners closely with local health plans and TPAs to enhance their offerings.
9/28/2021	Pitzi	5.3	43.75	• DCM Ventures • Flybridge Capital Partners • Initial Capital • Kaszek Ventures • QED Investors • Thrive Capital • Valiant Capital Partners • Western Technology Investment	• Pitzi is a direct-to-consumer smartphone warranty service for consumers in Brazil.
9/28/2021	DigitalOwl	6.5	8.4	• Amnon Shashua • Fusion LA • Ibex Investors • Menora Mivtachim Group • Plug and Play Accelerator • Xcelerator	• DigitalOwl developed an AI system that automatically analyzes legal and medical documents and health-related policies (life, disability, workers comp and health policies) to help underwriters and claims adjusters estimate the right settlement fee.
9/28/2021	Getlife	1.17	1.17	• Chris Adelsbach	• Getlife is an InsurTech company that provides everyone with easy and affordable life insurance.

Note: Blue font denotes current round investors.

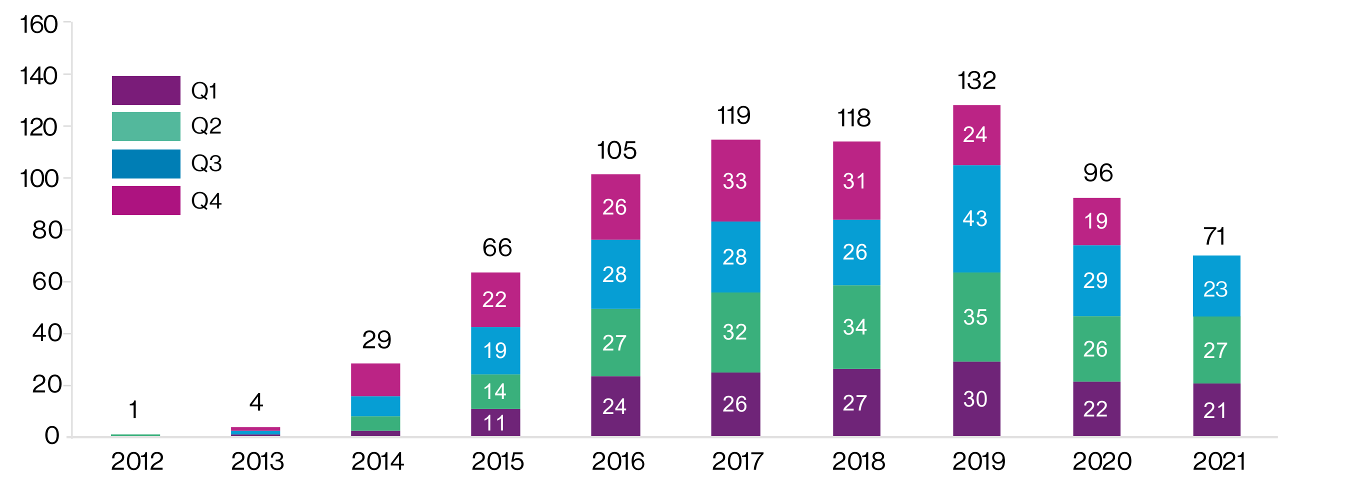
Q3 2021 InsurTech transactions – L&H

		Funding (US$M)			
Date	**Company**	**Round**	**Total**	**Investor(s)**	**Description**
9/28/2021	Sureify	15	25.33	▪ Aspen Capital Group ▪ Hannover Re ▪ Kickstart Accelerator ▪ Mundi Lab ▪ Plug and Play Accelerator ▪ Plug and Play Ventures ▪ TIMIA Capital Corporation	▪ Sureify's platform bridges the gap between carriers and their current and future policyholders. The company's technology starts with consumer web and mobile applications that drive engagement through device-integrated wellness, savings and rewards programs tied to a policy.
9/29/2021	TailorMed	5	33	▪ Accelmed ▪ Almeda Ventures ▪ American Cancer Society ▪ Bridges Israel ▪ BrightEdge ▪ Citigroup ▪ Discount Capital ▪ MassChallenge ▪ Microsoft ScaleUp ▪ OSF Ventures ▪ Perflow Medical ▪ Providence Ventures ▪ Sanara Ventures ▪ TriVentures ▪ UnityPoint Health Ventures	▪ TailorMed is a financial management solution for cancer patients. It provides out-of-pocket estimations based on the patient's insurance benefits, medical journey projections of all medical and financial events, and cost reduction recommendations.

Note: Blue font denotes current round investors.

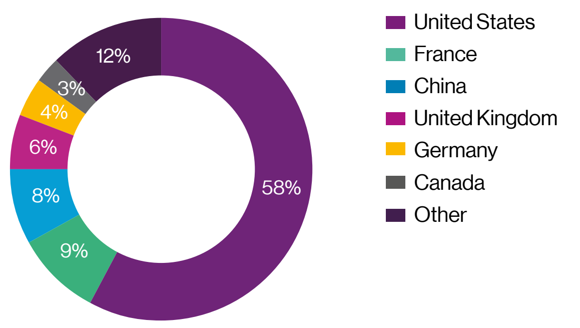
Private technology investments by (re)insurers

Private technology investments by (re)insurers



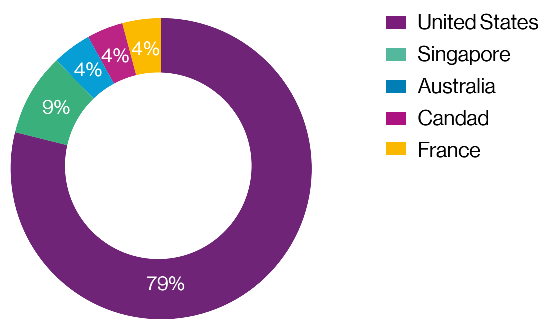
Private technology investments by (re)insurers by target country

2012 – Q3 2021



2012 – Q3 2021 Transactions: 741

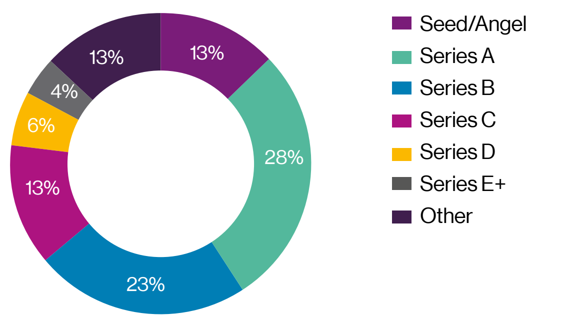
Q3 2021



Q3 2021 Transactions: 23

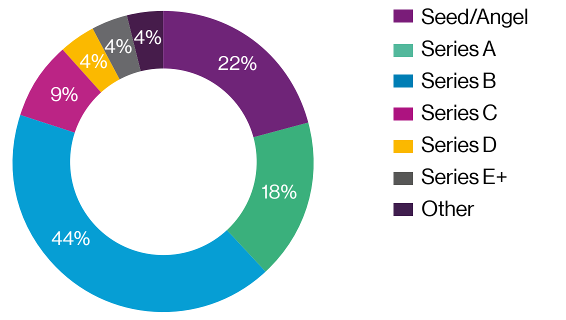
Private technology investments by (re)insurers by investment stage

2012 – Q3 2021



2012 – Q3 2021 Transactions: 741

Q3 2021



Q3 2021 Transactions: 23

Data Center

Private technology investments by (re)insurers

Date	Company	Funding (US$M) Round	Total	(Re)insurer investor(s)	Description
4/7/2021	Futurae	5.39	7.59	▪ AXA Venture Partners	▪ Futurae is creating multi-factor user authentication solutions for online applications. The company offers a portfolio of authentication products based on machine learning and sound.
4/9/2021	Span.IO	10.36	44.64	▪ Munich Re Ventures	▪ Span.IO creates a smart panel that replaces the electrical panel; integrates with different energy resources; allows users to prioritize the areas that should be powered during outages and backup scenarios; and accommodates the proliferating solar, storage and EV-charging systems in a home.
4/12/2021	Choosing Therapy	5	7	▪ American Family Ventures	▪ Choosing Therapy provides a mental health content site that connects people with therapists and helps therapists launch an online practice.
4/13/2021	Clearcover	200	307	▪ American Family Ventures	▪ Clearcover offers an app that provides fast claims, easy payments and a secure digital card. The company's API-first approach enables customers to have insurance at affordable rates.
4/13/2021	Vericred	23	34.66	▪ MassMutual Ventures	▪ Vericred simplifies the exchange of data between carriers and technology companies that are transforming the way health insurance and employee benefits are quoted, sold, enrolled and managed. Vericred offers solutions for technology platforms and carriers focused on the employer market, as well as the under 65 individual, Medicaid and Medicare markets.
4/14/2021	Gradient AI	20	30.95	▪ American Family Venture ▪ MassMutual Ventures	▪ Gradient AI seeks to address the need for artificial intelligence (AI) and machine learning (ML) solutions designed specifically for the insurance industry. Gradient's AI helps commercial insurers automate and improve underwriting results, reduce claim costs and improve operational efficiencies.
4/20/2021	Qapita	5	6.8	▪ MassMutual Ventures	▪ Qapita is a Singapore-headquartered digital equity management platform for private companies, particularly start-ups. Its software, QapMap, is designed to enable capitalization table (CapTable) management, employee stock ownership plan (ESOP) management and digital ESOP issuance with the aim of eventually enabling digital share issuance for companies across South and Southeast Asia.
4/21/2021	HaloDoc	80	158	▪ Allianz X	▪ HaloDoc is a communication platform that instantly connects users to doctors and offers the quick, safe and convenient delivery of medications, vitamins and supplements.
4/28/2021	Zirtue	2.25	4	▪ Northwestern Mutual Future Ventures	▪ Zirtue is a relationship-based lending app that simplifies loans between friends, family and trusted relationships with automatic ACH loan payments by allowing the borrower to set an amount for the loan, while the lender defines the repayment terms. Once both parties agree, Zirtue services the loan — for a monthly subscription fee — via the Automated Clearing House (ACH) network.
4/29/2021	Expensya	20	25.61	▪ MAIF Avenir	▪ Expensya specializes in the intelligent management of professional expenses, offering companies and accounting firms cloud, web and mobile software to report expenses.
4/29/2021	Alegre	–	–	▪ Assurant	▪ Alegre is a specialist in the refurbished smartphone and tablet market.
5/4/2021	Collective Health	280	714	▪ Sun Life Financial	▪ Collective Health is a technology company aiming to make health insurance work better for everyone. The company provides employers with an integrated software platform that allows them to administer their benefits plans, take better care of their people and optimize their investment — all in one place.
5/5/2021	Vida Health	110	188	▪ AXA Venture Partners	▪ Vida Health is a virtual care company that combines a human-centric approach with technology to address chronic physical and behavioral health conditions. The platform integrates individual expert care with machine learning and remote monitoring to deliver lasting behavior change, health outcomes and cost savings.
5/5/2021	MentalHappy	1.1	1.22	▪ Northwestern Mutual Future Ventures	▪ MentalHappy is an online mental health platform on a mission to make mental healthcare an accessible, affordable and stigma-free reality for everyone. MentalHappy strives to be culturally sensitive and is an online mental health platform designed to provide people of all races, genders and economic statuses a safe and secure platform to talk about their emotional health and the challenges they face in their daily lives and receive support from others who understand what they're experiencing.

Private technology investments by (re)insurers

Date	Company	Funding (US$M) Round	Total	(Re)insurer investor(s)	Description
5/19/2021	Super Home	50	80	▪ Liberty Mutual Strategic Ventures ▪ Munich Re Ventures	▪ Super Home is a subscription-based service for homeowners that aims to help with home maintenance. Super's repair plan pays for repairs and breakdowns on covered appliances and home systems. Super's concierge service manages the logistics for all home service needs. Customers are able to access services from their desktop, tablet or mobile phone.
5/20/2021	Virtuo	61.05	131.4	▪ AXA Venture Partners	▪ Virtuo is a completely mobile short-term car rental service.
5/26/2021	LifeQ	47	47	▪ Hannover Re	▪ LifeQ is a multinational science-driven technology and analytics company that combines skills from various disciplines to understand how physiology, anatomy, behavior and the environment interact, as well as how human health and wellness can be improved with this understanding.
5/28/2021	MotoRefi	45	68.3	▪ CMFG Ventures	▪ MotoRefi seeks to provide easy, transparent auto refinancing. Its secure, digital platform makes it easy for customers to see exactly how much they can save and complete the refinance process quickly.
6/1/2021	Bought By Many	350	477.3	▪ Munich Re Ventures	▪ Bought By Many uses data to develop insurance policies and negotiate discounts for users with unique insurance needs.
6/9/2021	BondEvalue	6	10	▪ MassMutual Ventures	▪ BondEvalue is a Singapore-based fintech company that focuses on Asian bond markets.
6/9/2021	Embroker	100	143.8	▪ Manulife Capital ▪ MassMutual Ventures	▪ Embroker is a digital insurance company that builds, underwrites and distributes commercial lines directly to insurance buyers for small and midsize enterprises.
6/9/2021	Branch	50	74	▪ American Family Ventures ▪ SCOR P&C Ventures	▪ Branch provides bundled home and auto insurance. With only two questions, Branch can provide a bindable price to a client looking to bundle within seconds.
6/17/2021	Splash Financial	44.3	61.83	▪ CMFG Ventures ▪ Northwestern Mutual Future Ventures	▪ Splash Financial is a student loan refinancing company that provides online lending options to help college graduates consolidate and refinance their student loan debt. Its mission is to help young professionals tackle student loan debt, so they can find financial freedom earlier in their careers.
6/24/2021	SmartAsset	110	157.6	▪ CMFG Ventures ▪ New York Life Ventures	▪ SmartAsset, owned and operated by Financial Insight Technology, is a financial technology company that provides transparent, automated and accurate advice on big personal finance decisions. SmartAsset helps users arrive at answers and make decisions concerning their finances.
6/24/2021	Edflex	5.96	5.96	▪ MAIF Avenir	▪ Edflex offers a digital training solution for companies.
6/25/2021	Mayday	3	3	▪ MAIF Avenir	▪ Mayday develops intelligent knowledge-base software for customer services.
6/29/2021	Pathpoint	30	36	▪ Chubb ▪ Hiscox Holdings	▪ Pathpoint is a provider of software solutions to help brokerages and carriers manage digitally transacted excess and surplus risks.

Data Center

Q3 2021 strategic (re)insurer partnerships

Date	Company	(Re)insurer investor(s)	Description
7/7/2021	Artis	▪ CMFG Ventures	▪ Artis builds a lending platform that offers embedded finance, consumer lending, machine learning, artificial intelligence, data and analytics, API, closed-end credit, merchant financing, instant funding, real-time payments and closed-loop payment services.
7/8/2021	Twelve	▪ Munich Re Ventures	▪ Twelve, formerly Opus 12, captures carbon emissions where pollution is generated, and turns the carbon dioxide into chemicals like methane, ethylene and ethanol, which are gases used to make plastics, surfactants, detergents and fuels that burn relatively clean, as compared with diesel and gasoline.
7/14/2021	LinkSquares	▪ MassMutual Ventures	▪ LinkSquares is AI-powered contract analytics software designed to help legal and finance teams work smarter by simplifying contract management, analysis and reporting.
7/19/2021	InDebted	▪ MassMutual Ventures	▪ InDebted is a debt recovery agency that provides software aimed at small to medium business customers that is already operational in the Australian market and boasts the recovery of millions of dollars for thousands of businesses.
7/20/2021	Vestwell	▪ Allianz Life Ventures ▪ Manulife Capital ▪ Nationwide Ventures ▪ Northwestern Mutual Future Ventures	▪ Vestwell is a platform that helps investment advisors evolve their business to suit the changing landscape of retirement investing. Vestwell provides Registered Investment Advisors with a white-labeled platform to align with the latest rules and regulations and scale their business to provide 401(k) planning to companies and their employees.
7/22/2021	Yeswehack	▪ CNP Assurances	▪ Yeswehack provides a digital platform offering outsourced cybersecurity services, including bug bounty programs.
7/27/2021	At-Bay	▪ Munich Re Ventures	▪ At-Bay is an insurance company for the digital age. At-Bay combines security and insurance expertise to deliver better insurance products and security services to its clients.
7/27/2021	iCapital Network	▪ Ping An Ventures	▪ iCapital Network is an online platform that enables qualified investors to search and analyze hundreds of private fund managers and gain direct access to buyout, growth equity, real estate, mezzanine, infrastructure, real assets and venture funds. Its secure online portal makes it possible for top-performing fund managers to aggregate commitments from a network of independent wealth advisors, family offices and individual qualified purchasers.
7/29/2021	Hello Divorce	▪ Northwestern Mutual Future Ventures	▪ Hello Divorce gives clients lawyer results without the lawyer cost with a combination of software and accessible legal services, keeping consumers involved in the process and out of the court.
7/29/2021	Wyze	▪ American Family Ventures	▪ Wyze develops smart home products. Its first product is a smart home camera that stays connected and offers 1080p full HD, night vision and two-way audio.
8/10/2021	Breeze	▪ Northwestern Mutual Future Ventures	▪ Breeze is a fintech start-up that offers online disability insurance products.
8/10/2021	FreshBooks	▪ Manulife Financial	▪ FreshBooks provides accounting software platforms for small businesses and self-employed professionals, with invoicing, time-tracking, expense management, online payments, bank reconciliation and double-entry accounting features.
8/19/2021	High Definition Vehicle Insurance	▪ Munich Re Ventures	▪ HDVI brings high-quality telematics and an integrated suite of software and support to fleets included within the cost of a competitive insurance policy.

Q3 2021 strategic (re)insurer partnerships

Date	Company	(Re)insurer investor(s)	Description
9/1/2021	Blueprint Title	▪ Greenlight Re Innovations ▪ Liberty Mutual Strategic Ventures	▪ Blueprint Title develops an insurance platform to streamline the residential real estate closings for buyers, sellers and real estate service professionals. The company's platform offers a modern approach to title insurance and closing by providing communication, document review, transparent pricing and easy loan processing, enabling homebuyers to understand the closing process, homebuilders to save money and hassle, and mortgage bankers to simplify closing and make proactive communication.
9/1/2021	Insurify	▪ MassMutual Ventures ▪ Nationwide Mutual Insurance Company ▪ Toyota Insurance Management Solutions ▪ Viola Group ▪ Viola Growth	▪ Insurify offers an insurance quotes comparison platform and virtual insurance agent. Insurify provides a personalized quote list and performs an apples-to-apples comparison of competitive carriers.
9/2/2021	Bright Cellars	▪ Northwestern Mutual Capital	▪ Bright Cellars is a monthly wine club that matches users with wine that they love. The Bright Points algorithm scores each wine by comparing 18 attributes to preferences, matching users with their monthly experience.
9/2/2021	SecZetta	▪ MassMutual Ventures	▪ SecZetta provides enterprise organizations with an identity risk and life cycle management platform to understand, manage and reduce the risks associated with non-employee populations from third-party organizations (e.g., contractors, affiliates, agents).
9/9/2021	Affinity	▪ MassMutual Ventures	▪ Affinity provides technology that structures and analyzes data points across emails, calendars and third-party sources to give tools to companies in the financial services, real estate and technology industries.
9/9/2021	Spark Advisors	▪ American Family Ventures	▪ Spark Advisors partners with local agents to help people monitor Medicare coverage, maximize benefits and resolve insurance issues.
9/16/2021	OnLoop	▪ MassMutual Ventures	▪ OnLoop is a software company that develops a mobile solution for performance reviews and feedback. Through personalized, data-driven learning, its mobile application provides managers with insights into individual and team development, helping them assess and develop their teams. It is based in Singapore.
9/22/2021	Aspire	▪ MassMutual Ventures	▪ Aspire provides SMEs with business credit lines to solve their working capital needs. The company's goal is to provide business owners with fast and simple access to the funding they need to grow.
9/23/2021	Awning	▪ MassMutual Ventures	▪ Awning offers a digital platform that specializes in high-yield rental homes and is based in San Francisco.
30/23/2021	Homee	▪ Desjardin ▪ Hartford Investment Management Company ▪ Liberty Mutual Strategic Ventures ▪ State Farm Ventures	▪ Homee is an on-demand property maintenance service that provides customers with instant access to electricians, plumbers, HVAC technicians and handymen from a mobile app.

Additional information

The *Quarterly InsurTech Briefing* is a collaboration between Willis Re, Willis Towers Watson's Insurance Consulting and Technology, and CB Insights. Production is led by following the individuals. For more information, or to discuss the results of this report, please direct inquiries to InsurTech@willistowerswatson.com.

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