INNOVATION & TECHNOLOGY

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INSURTECH 2021

DIGITAL CARE MAKES IMPACT

Virtual reality helps workers recover

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STARTUPS MULL OPTIONS

The cyber liability market attracts investors to insurance, but will many stay the course?

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20%

Technology drives innovation

Gavin Souter
EDITOR

Insurtech funding saw huge growth in the second quarter, and interest in the sector looks likely to continue to surge. Established and startup companies are striving to develop technology to better manage emerging exposures, create solutions to deal with the startling rise in cyberattacks and find more efficient ways to deal with traditional insurance risks.

In this special Innovation & Technology edition of *Business Insurance*, we examine these trends and what they will mean for the insurance and risk management sector going forward.

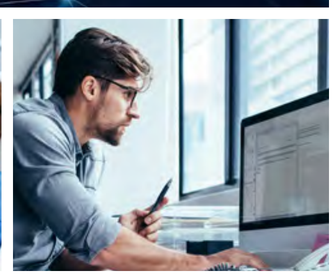
For example, virtual reality in the past has been seen as a video gaming gimmick, but the technology is being adopted to help people recover from post-traumatic stress disorder. As greater recognition is given to the human and financial costs of mental injuries, such technology is being used by some in the workers comp sector to help employees who have experienced trauma to safely overcome their fears.

In general risk management tasks, too, technology is playing a much bigger role and in many cases has become an essential part of a risk manager's toolbox.

Technological developments have also become a threat to companies, and insurers and insurance investors see opportunities in offering protection against these risks — in particular cyber risks. Although cyber liability insurance has been available for decades, and many well-established insurers provide the coverage, there has been an influx of new companies in the space. How the newcomers and the established players will adapt to the rapidly changing risks remains to be seen.

In addition to technology developments, in this issue we showcase the winners of the 2021 *Business Insurance* Innovation Awards. The awards celebrate the continued innovation in the insurance and risk management sector. Profiles begin on page 9.

INSIDE



BUSINESS INSURANCE INNOVATION AWARDS

2021 INNOVATION AWARD WINNERS

Business Insurance profiles the winners of its 2021 Innovation Awards, recognizing the best of the ever-evolving developments in technology. Winners include insurers, brokers, technology companies and others. **PAGE 9**

PAIN MANAGEMENT

Virtual reality holds promise in treating chronic pain, but barriers remain to its adoption in workers comp. **PAGE 4**

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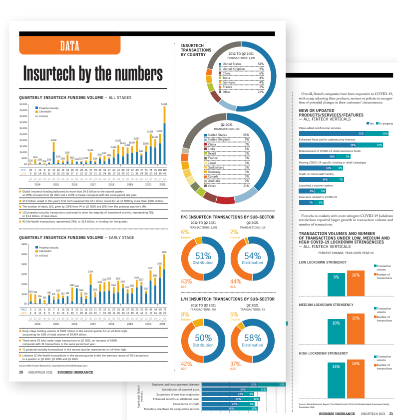
Financial technology companies are taking hold amid the pandemic-driven shift to digital operations. **PAGE 5**

CYBER OUTLOOK

Cyber insurtechs are drawing strong investor interest, but experts foresee a shakeout in the sector. **PAGE 6**

DATA: INSURTECH



Global insurtech funding topped $4.8 billion in the second quarter, up 210% from the year-earlier period. The fintech sector overall is attracting considerable investor interest. **PAGE 20**

PERSPECTIVES

INSURTECHS STRENGTHEN THE INDUSTRY AS A WHOLE

The startups have been wrongly viewed as competitors trying to steal market share from traditional insurance companies rather than a catalyst for efficiency industrywide, writes Phil Edmundson, founder and CEO of Corvus Insurance Holdings Inc. **PAGE 19**

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Medical use of virtual reality shows promise

BY ANGELA CHILDERS
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Medical providers in the workers compensation sector have successfully reduced their reliance on opioids to help injured workers manage their pain, and some are experimenting with technologies such as virtual reality as an alternative to medication.

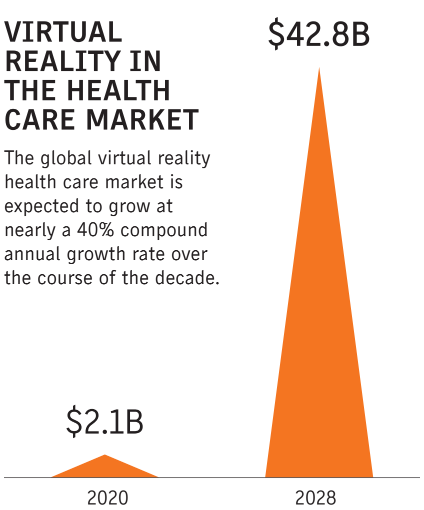
The U.S. Food and Drug Administration approved the first virtual reality device for treating chronic pain in 2020, but many barriers remain to the widespread use of such technologies in the comp sector, experts say.

At least a half dozen studies have been released in the past year evaluating the medical use of virtual reality. Among the topics addressed is the use of headsets and video games to treat such issues as combat-related post-traumatic stress disorder, mood disorders and anxiety.

In 2020, CorVel Corp. began using virtual reality to treat a handful of patients with chronic pain, combining technology from Las Vegas-based Harvard MedTech LLC, which produces VR tech for in-home use, with weekly goal setting and coaching calls.

VIRTUAL REALITY IN THE HEALTH CARE MARKET

The global virtual reality health care market is expected to grow at nearly a 40% compound annual growth rate over the course of the decade.



Source: Verified Market Research

Historically, treating chronic pain patients has been approached pharmacologically, said Karen Thomas, Washington-based director of case management innovation at CorVel.

"It's 'take a pill, have a procedure' — our customers and even injured workers themselves are really hungry for alternative treatments and therapies," she said. "The acceptance of these types of alternative treatments is growing. Customers (are) embracing a bio-psycho-social model to health care critical to getting their injured workers recovered more quickly."

The technology, which is essentially a headset delivered to injured workers' homes, enables them to immerse themselves in a virtual reality to provide a meditative or escapist experience that helps to "transform the way in which pain and symptoms of trauma are alleviated," said Pat McCutcheon, chief sales officer at Harvard MedTech. "Think of it as rewiring the brain."

"The goal setting begins day one, which is really critical with our … injured worker population," Ms. Thomas said. "It puts the onus of care and recovery on the lap of that injured worker. They're owning their recovery."

The Montgomery County Self-Insurance Program, a member-based program in Virginia that handles workers compensation for county employees including police, firefighters, paramedics, teachers and maintenance workers, recently tried using VR with a group of workers to manage their chronic pain, according to Pearl Monroe, Fairfax, Virginia-based vice president of MC Innovations LLC, a managed care consulting group and program manager of the self-insurance program.

"We were dealing with the fallout from the opiate crisis and trying to find other alternatives than using the very basic, more traditional type of care," she said.

The self-insurer identified about 10 injured workers who had been using medications for years to treat their chronic pain — many taking high doses of morphine medical equivalents — as potential candidates for VR, Ms. Monroe said.

While some had anxiety about changing their routine of pain medication, the VR allowed them to be engaged in the process of managing their pain vs. having someone direct them to take a prescription "or god forbid have surgery again," she said. "The idea here is they're part of the solution, they can see their progress, they can see their results."

And with the expense of opioids, Ms. Monroe said medical costs for workers who used the VR or a combination of reduced prescriptions with the therapy dropped "anywhere from $1,200 to $1,400 a month." Since there is no fee schedule, the VR is billed via a direct fee arrangement.

While the workers comp industry is interested in using such technology, it has not fully embraced it because currently there is no defined way to bill for the services, said Dr. Teresa Bartlett, senior medical officer at Sedgwick Claims Management Services Inc.

"There is no billing code so it requires going off the grid to pay for this technology," she said.

Another issue is the lack of solid data to back the treatment, said Dorothy Riviere, Overland Park, Kansas-based chief clinical officer at Bardavon Health Innovations LLC, which analyzes workers compensation treatment data to improve clinical outcomes.

"If you think about VR, I do think there is a great opportunity there," she said. "With 100 million people having chronic pain each year, new ideas are always a good alternative."

However, more data of its use in the workers comp sector is needed to "understand the impact of VR not just on pain, but also on the ability of that intervention to improve a person's function" and the ability to return to the workplace, Ms. Riviere said.

Payers also want to clearly see the value in the treatment, and it's also challenging for health care providers to use such innovative treatments on injured workers if they're not assured of payment, she said.

"As technology continues to advance rapidly, if the cost continues to come down, and it's being used more widely in the commercial health space … then I think you're going to see more adoption potential," Ms. Riviere said.

TECHNOLOGY HELPS FRONT-LINE WORKERS OVERCOME PHOBIAS, TRAUMA

With health care professionals suffering from post-traumatic stress disorder from being on the front lines of the COVID-19 pandemic, virtual reality is also being tested as a potential treatment.

"VR types of gaming technology are being used a lot more in rehabilitation settings and in the treatment of things like phobias and PTSD," said Dan LeGoff, clinical advisor at St. Petersburg, Florida-based workers compensation behavioral health provider Ascellus Health Inc.

In PTSD, treatment involves keeping the individual relaxed while being exposed to stimuli, Mr. LeGoff said. For instance, if someone is injured in a fire and subsequently has anxiety about being near fire, VR can expose that person to the experience while in a safe environment, such as their home or office, he said.

The Montgomery County Self-Insurance Program is looking at using VR to treat the anxiety and stress of workers, including treatment of concussions, said Pearl Monroe, Fairfax, Virginia-based director and program manager for the self insurer.

"Definitely that's an avenue we are going to be working on," she said. "When you're dealing with a concussion, for example, there's always an anxiety or sort of stress level that is tied to that. We see that (VR) can complement that treatment."

Ascellus is also using VR-type technology to help doctors and nurses dealing with COVID-19 brain fog. "They have a hard time going back to work if they don't feel sharp; they worry about making mistakes," Mr. LeGoff said. "For those people, we really want to make sure we give them close scrutiny."

The VR-type games played by the workers provide feedback that determines their fitness for duty and tracks their progress and outcomes, he said.

Angela Childers

Insuring fintech firms presents challenges

BY CLAIRE WILKINSON
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Financial technology companies — from investment, lending and payment platforms to robo-advisers, insurtechs and cryptocurrency exchanges — are taking root, as the pandemic has accelerated a shift to digital operations.

Global venture capital-backed fintechs raised a record $30.79 billion across 657 deals in the second quarter of 2021, a 30% increase from the first quarter, according to a July report from CB Insights. Total funding in the first half of 2021 exceeded all funding raised in 2020 (see chart).

But insuring these innovative companies, many of them startups, can be challenging due to the combination of financial, human and digital risks they present and changing regulatory exposures they face, experts say.

Claudia Ramone, New York-based vice president, alternative asset management at EPIC Insurance Brokers and Consultants, said insurer risk appetite for fintechs is limited, with only a "select" number of insurance markets willing to write the risks.

In the case of a technology company such as a software developer, "I would have 10 markets that I'm consistently able to go to," Ms. Ramone said. But when it comes to fintechs only three or four markets, "maybe 25% or 30% of your market pool would have an appetite," she said.

What makes a fintech challenging is that it is both a financial institution and also a technology company, said Thomas Tierney, FINPRO financial institutions practice leader at Marsh LLC in New York.

"You have elements of financial institution errors and omissions coverage, technology E&O coverage and cyber E&O coverage all embedded within the same risk profile. How you effectively manage that risk and transfer it to reinsurance has always been a challenge," Mr. Tierney said.

Fintechs in the payments, digital banking, insurtech and business processing sector tend to be viewed more favorably by insurers, while it can be more difficult to secure coverage for cryptocurrency, nonbank lenders, robo-advisers and online broker dealers. "It requires more transparency and conversations with insurers," he said.

As well as E&O, important coverages for fintechs include directors and officers liability, employment practices liability, cyber liability and fiduciary insurance, brokers say.

Securing adequate and affordable E&O coverage is the most challenging piece for fintechs, said Jacob Decker, Seattle-based vice president and director of financial institutions at Woodruff Sawyer. Many existing policies were not written with new business models in mind, so how they define a fintech's products and services may be inadequate and may not fully encapsulate what they do, he said.

Another concern for early-stage companies is the cost of coverage. "It's high-risk insurance. If you're an early-stage company and you just raised an A round or a C round it's very likely you don't have a budget that would be sufficient to justify buying that type of cover yet," Mr. Decker said.

Insurance pricing for fintechs is in the multiples of what it would be for a traditional financial services company, said Scott Warren, assistant vice president at Founder Shield, a New York-based insurtech company that in July was acquired by broker BRP Group Inc.

Venture capital and private equity firms provide a reference point, he said. For fintechs with a technology interface "the pricing is multiples of that. We see anywhere from $30,000 to $100,000 in premium for a base level $1 million limit in this space," Mr. Warren said.

Tim Braun, New York-based head of financial institutions at Axis Insurance, U.S., said that underwriters consider three key components: the capital, investments and investors behind the startup fintech; its leadership and skillset; and its corporate or reputational risk.

"The fintech company has to have some understanding and appreciation of these risks and a way to manage them," Mr. Braun said.

Startups tend to have a high failure rate, which can make fintechs a less attractive risk for insurers because they may not be around long enough to generate renewable income, premium and commissions, said Scott Whitehead, managing director at Markel Insurtech Underwriters, a unit of Markel Corp. in Glen Allen, Virginia.

Another factor is that many startups haven't started generating steady revenue when they are required to get insurance. "That's a practical issue for an underwriter in trying to charge the right rate," Mr. Whitehead said.

David Roque, Fort Lauderdale, Florida-based vice president at USI Insurance Services LLC, said many cryptocurrency exchanges and digital asset companies have hit brick walls with insurance markets.

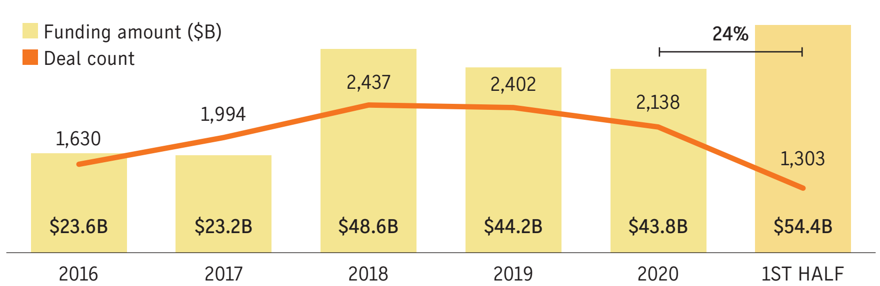
"Carriers aren't familiar with the territory and the lack of regulatory involvement. It scares a lot of insurers away," Mr. Roque said.

Insurers tend to be more comfortable when the cryptocurrency tokens traded have been in the industry for some time, when they understand the structure, and when they know the states and countries in which the cryptocurrency companies operate, he said.

Fintechs need to keep on top of regulatory compliance because the regulatory environment is changing rapidly, said Jim Wetekamp, CEO of Atlanta-based Riskonnect Inc., a risk management technology company. How regulations are interpreted and understanding how cryptocurrencies fall into the regulatory framework are important considerations, Mr. Wetekamp said.

GLOBAL FINTECH INVESTMENT TRENDS

Venture capital-backed funding for the first half of 2021 exceeded total funding for all of 2020 by 24%.



Source: CB Insights, State of Fintech Q2'21 Report

DATA BREACHES PUT FOCUS ON DIGITAL RISK MANAGEMENT

Fintechs must increase their efforts to manage digital risks as recent cyber events, such as the Colonial Pipeline ransomware attack, have exacerbated an already-difficult cyber market, experts say.

Data security and privacy exposures are a critical risk for fintechs that interact with customers through a platform or web interface, said Jacob Decker, Seattle-based vice president and director of financial institutions at Woodruff Sawyer.

"Online financial services companies are attractive targets for hackers and criminals. They represent potential honeypots of information that would be of interest to them," Mr. Decker said.

If a fintech is a fiduciary of data, especially in the consumer and retail sector, it can hold tremendous amounts of information, said Claudia Ramone, New York-based vice president, alternative asset management, at EPIC Insurance Brokers and Consultants.

For one fintech client with more than 25 million personally identifiable information points, finding coverage in the cyber market was "extremely difficult," she said.

"It's like a dental exam every time you submit an application. It's very tedious. The market has pulled back tremendously and they're asking so many questions. I've seen limits reduced, retentions increase. Pricing is up a minimum of 15%, north of 50%," Ms. Ramone said.

Digital risk is a top concern for financial services due to the fraud environment and their fiduciary responsibility, said Jim Wetekamp, CEO of Atlanta-based Riskonnect Inc. Fintechs could also face third-party risk if they outsource services, he said.

Claire Wilkinson

Cyber insurance startups set to scale up as investors cash in on digital protection

BY JUDY GREENWALD
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Insurtechs that specialize in cyber risk can take numerous paths — with their future dependent at least in part on their investors' patience — but not all will survive, experts say.

Possible options for the companies, many of which operate as managing general agencies, include remaining independent, being acquired, or establishing partnerships with traditional insurers (see chart).

It will take time to determine the insurtechs' success, said Catherine Mulligan, New York-based global head of cyber for Aon PLC's reinsurance solutions. "We have to let the losses roll through."

Not all will endure, said Peter Taffae, managing director at Los Angeles-based wholesale brokerage Executive Perils Inc. "There's going to be a cleansing, if you will," he said.

"You'll see a lot of these companies being sold off," said John A. Coletti, former New York-based chief underwriting officer for cyber and technology in North America for Axa XL, a unit of Axa SA, who is joining Swiss Re as head of global cyber. "That's sort of the nature of this business," that investors want "to be able to cash out and make their money."

At the same time, continuing investor interest means more cyber insurtechs are likely to be launched, as the overall market slowly reaches a consensus on which are viable.

> "You'll see a lot of these companies being sold off. That's sort of the nature of this business."
>
> John A. Coletti

"There's a need for more capacity in the market" and "a lot of investor appetite right now," said Anthony Dagostino, New York-based executive vice president, global cyber and technology practice, at Lockton Cos. Inc.

Globally, insurtechs of all types raised $7.38 billion in the first half of this year, surpassing the $7.12 billion raised for all of 2020 by $268 million, according to a report issued in July by Willis Towers Watson PLC.

Given the demand for coverage, "the insurtechs have room to grow," said Vikram Sidhu, New York-based partner at law firm Clyde & Co. Many will remain independent for the next two to five years but, based on past history, they may later be absorbed by larger entities.

Jim Auden, managing director at Fitch Ratings Inc. in Chicago, said the private equity firms that own many of the companies may plan to have them go public or find another exit strategy in five to seven years, "so you can see larger insurers as likely candidates to provide those investors with liquidity."

"Consolidation will occur," said Erica Davis, New York-based managing director, global co-head of cyber, at Guy Carpenter LLC, the reinsurance broking unit of Marsh & McLennan Cos.

"A transaction will be an effective way either for a nonwriter of cyber currently to enter the space, or for an existing insurer to obtain proven technology without time and cost commitments," she said.

Some could be acquired by traditional insurers that "have that kind of M&A strategy," while others could build themselves up to full-stack insurers, Ms. Mulligan said.

Richard May, Redmond, Washington-based managing principal at EPIC Insurance Brokers & Consultants, said, "As long as their business model remains profitable, most of them, I believe, will want to remain standalone."

Cowbell Cyber Inc., a Pleasanton, California-based managing general agency, will become a full-stack insurer, said founder and CEO Jack Kudale. "The MGA model is an amazing model, but the growth in this market is so big, so huge," that a transition to a full-stack insurer is called for, he said.

He added, "I would forecast there is space for three to four companies to go public as cyber insurers in the market." At least for now, Cowbell will remain a monoline insurer, he said.

MULTIPLE STRATEGIES

Options facing cyber insurtechs, which are not necessarily mutually exclusive, include:

- Being acquired by a traditional insurer.
- Being acquired by another tech company.
- Remaining a fully independent entity, and possibly
  - Becoming a fully licensed insurer.
  - Going public.
  - Merging with another cyber insurtech.
  - Expanding beyond cyber to related lines such as errors and omissions.
- Partnering with a traditional insurer.
- Growing by acquiring smaller entities.
- Remaining a managing general underwriter.
- Selling a minority ownership stake to a traditional insurer.
- Going out of business.

Source: *Business Insurance* interviews

Cyber insurtechs will not necessarily remain monoline. Rotem Iram, founder and CEO of At-Bay Inc., a Mountain View, California-based cyber insurtech MGA, which raised an additional $185 million in venture capital in July, said, "We're seeing cyber risks cross over into other lines of professional liability," most notably, E&O and crime.

"We think that trend will continue, and as a result we plan to continue and develop our suite of products to provide support to brokers and customers across multiple lines of business," Mr. Iram said. This will also help build "a balanced and more stable book of business," he said.

Initial public offerings may also be in cyber insurtechs' future.

IPOs are "becoming a bigger part of the insurance ecosystem, and being a public company is a great way to access capital," said Jason Barg, a partner with Radnor, Pennsylvania-based Lovell Minnick Partners LLC, a private equity company.

"I believe in the alliance model" between insurtechs and traditional companies, where different capabilities can be brought together, said Ed Chanda, national sector lead, insurance, at KPMG LLP in Columbus, Ohio.

> "I would forecast there is space for three to four companies to go public as cyber insurers in the market."
>
> Jack Kudale,
> Cowbell Cyber Inc.

Tim Zeilman, global cyber product owner at Hartford Steam Boiler in Simsbury, Connecticut, said HSB has provided capacity for both At-Bay and San Francisco-based cyber risk management company Zeguro.

"There are a lot of ways insurtech and traditional insurance companies work together, " he said. Many are MGAs that "essentially are working on behalf of traditional insurance companies" in effective partnerships.

Newcomers, incumbents face off, with each offering pros and cons

Cyber-oriented insurtechs and standard insurers that cover cyber each have their own strengths and weaknesses, experts say.

Insurtech companies that either write cyber directly or as managing general agencies can offer nimble service unimpeded by standard insurers' legacy issues, but they do not have standard line competitors' financial resources, they say.

Another difference is their segment focus. Many insurtech companies have found a niche in catering to small and medium-size companies, which arguably have been underserved, and have a more streamlined underwriting process because they rely on automated processes for these often relatively uncomplicated risks.

In contrast, standard line insurers, with their large bandwidth and resources, may be more capable of handling larger accounts, although there is not necessarily a strict demarcation between the two models.

Cyber insurtech Cowbell Cyber Inc. can arrange for coverage in under five minutes for policyholders with less than $250 million in coverage, which is its market focus, said Jack Kudale, founder and CEO of the Pleasanton, California-based company.

"It's really hard for traditional insurers to do that, so it's an advantage for newcomers such as ourselves," Mr. Kudale said.

Shawn Ram, head of insurance for insurtech Coalition Inc., a San Francisco-based managing general agency that specializes in cyber insurance and security, said the insurance industry "historically has struggled" with legacy systems, leading to a slower operating pace and difficulties in implementing advanced technology.

Phil Edmundson, founder and CEO of Boston-based Corvus Insurance Holdings Inc., an insurtech managing general underwriter, and a long-time industry executive, said commercial insurance normally relies on historical data.

"We find that to be less compelling in cyber insurance because of the nature of the risk. Both the types of attacks and tools have changed so much recently," he said. "Having a view of the present vulnerabilities and present cyber ecosystem is much more powerful here than in other types of insurance."

Traditional insurance companies "are not the most forward thinking" and, especially with respect to technology, are "more reactive than proactive," said Michael Dion, vice president and senior analyst with Moody's Investors Service Inc. in New York.

John A. Coletti, former New York-based chief underwriting officer for cyber and technology in North America for Axa XL, a unit of Axa SA, who is joining Swiss Re as head of global cyber, said, however, that "when something goes awry, like ransomware is now, (standard line companies) have reserves to cover those claims, whereas insurtechs have not built up reserves yet," and so their participation in the market could be short-lived.

Richard May, Redmond, Washington-based managing principal at EPIC Insurance Brokers & Consultants, said the cyber insurtechs and traditional insurers are moving closer together in how they approach cyber, at least for the somewhat larger risks.

Many traditional insurers now use the scanning technology adopted by insurtechs as part of their underwriting process, while cyber insurtechs "have started to ask more questions because they can't get the answers they're after from those scans," Mr. May said.

"Cyber as a line of business presents, probably, the most even playing field between insurtechs and incumbents, just on the basis it's a relatively new risk class, and so incumbents don't have an inherent advantage" because of their access to decades of data, said Andrew Johnston, Nashville-based Willis Re insurtech global head. And insurtechs are competitive on price, he said.

Judy Greenwald

BACKERS MAY NEED TO WAIT TO REAP FINANCIAL RETURNS FROM CYBER INVESTMENTS

A key factor in cyber insurtechs' future is investors' patience in waiting for a return on their investment.

Private equity investors are accustomed to technology's more rapid pace compared with the insurance sector, "so it will be incumbent on the insurance arms of these insurtechs to really articulate a clear strategy and explain how it works," said Catherine Mulligan, New York-based global head of cyber for Aon PLC's Reinsurance Solutions.

Michael Dion, vice president and senior analyst with Moody's Investors Service Inc. in New York, said, "You would probably have to worry about some of these investors looking for the next hot idea" if their investments do not generate a high enough return in the expected time-frame. Others "can be a little more patient with it," he said. "It depends on who the investors are."

While initially investors may have had shorter investment horizons, "there's a view there are good returns to be had in the medium term," beyond two to five years, which will give insurtechs breathing room, said Vikram Sidhu, New York-based partner at law firm Clyde & Co.

"My sense of the marketplace is, investors have felt comfortable" with the cyber insurtechs, which have so far not suffered losses that would lead them to question their investment strategy, he said.

"Our investors are thoughtful about the challenges of building new models in a traditional industry like insurance," said Phil Edmundson, founder and CEO of Boston-based Corvus Insurance Holdings Inc., an insurtech managing general underwriter.

"They have been very successful in banking and related activities, and I think they will be very successful in our business, too," he said.

Corvus investor Vishal Vasishth, co-founder and managing director of San Francisco-based tech venture capital firm Obvious Ventures, said, "We are planning on building companies from the ground up, so we can have a little longer horizon as compared to a private equity fund," which prefer investing in more established companies.

"There are various breeds of venture capital partners," said Vishaal Hariprasad, CEO of San Francisco-based program manager Resilience Cyber Insurance Solutions, which is supported by a unit of Toronto-based Intact Financial Corp. The ones that succeed generally are the ones that have patience and a long-term vision, he said.

Judy Greenwald

Risk managers tap into new technology

BY MATTHEW LERNER
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Technology tools, including web portals and exposure mitigation techniques, have become critical parts of modern risk managers' arsenals, helping to inform and automate a range of functions.

Employing such tools can help policyholders with day-to-day risk management and claims, and even improve insurance purchase outcomes.

"I don't think anybody can do their jobs without using these tools nowadays," said Alumine Bellone, vice president, risk management, at Ardent Health Services LLC in Nashville, Tennessee, referring to the portals and other technology provided by insurers, brokers, third-party administrators and others.

Ms. Bellone uses FM Global's My Risk platform daily and uses portals from other insurers and brokers intermittently. "They all seem to be pretty much the same," displaying a dashboard to navigate functions after accessing the system, she said. She uses broker platforms to access policies and endorsements as well as systems from TPAs.

The My Risk platform is a web portal tool that can be used by policyholders, brokers and others to access client data such as risk, policy and claims information, said John Busavage, staff vice president, product enablement, in Johnstown, Rhode Island, for FM Global.

The platform incorporates external weather and climate data to allow policyholders to see how forecasted events such as rain might affect locations, he said.

> "We find today, especially with self-service, that the policyholder absolutely wants to push the pace of their claim."
>
> Kenneth Tolson,
> Crawford & Co.

Flisk, a vendor-supplied technology for which Ardent pays a subscription fee, has helped with renewals, Ms. Bellone said. The management system, provided by Nashville-based Flisk LLC, "reduced the amount of time I spend collecting underwriting information and also has improved my insurance outcomes," she said.

In the construction practice at Axa XL, a unit of Axa SA, shifting policyholders into technology can improve their risk profile, said Rose Hall, vice president, head of construction innovation at Axa XL, in New York. "We know that when they use certain technologies, they are a better risk."

Axa XL uses its Tech Tapas, or small bites of technology, program to offer technology briefings and demonstrations, she said. The insurer sources and vets the technologies for its policyholders and arranges for reduced fees and other deals with tech vendors.

Information about water mitigation is among the most sought after and has applications in property lines. In addition, telematics for auto fleet management and drones reach beyond the construction practice into other businesses, Ms. Hall said.

Crawford & Co. has a 3D spatial modeling platform with a self-service workflow that allows it to "simply have the policyholder do the image capture" for a claim, such as a collision at a loading dock, said Kenneth Tolson, U.S. president of claims solutions at the Atlanta-based claims company. Platform software then "stitches together" a model of the property depicting the damage, he said.

"One of the most powerful trends underway is self-service," Mr. Tolson said. "How do we equip the policyholder to accelerate the claims process but also participate in the documentation gathering of that process."

A retail business policyholder or any other with a series of locations generally has an employee on site who can participate in the documentation of loss control and claims, he said.

"It's really about acceleration and policyholder experience. We find today, especially with self-service, that the policyholder absolutely wants to push the pace of their claim," with some 60% to 70% of customers electing

> "We know that when they use certain technologies, they are a better risk."
>
> Rose Hall,
> Axa XL

to participate in the claims process with data capture or in other ways, Mr. Tolson said

"We're in an on-demand environment," said Kimberly George, Chicago-based global head of product development and innovation at Sedgwick Claims Management Services Inc., which has spent about two years building a platform for use by risk managers, insurers, claimants and other stakeholders.

Sedgwick recently launched the latest iteration of its intake and incident management platform, now called smart.ly.

The platform has evolved from a simple intake system for claims incidents to an interactive tool that can be used to verify policy and coverage details, and insured values.

Sedgwick's platform helps accelerate the pace of a claim by allowing policyholders to participate in data capture as well as pulling in external data, such as weather information, which can be used to help verify a loss event, such as hail damage to a roof, Ms. George said.

"The policy information and weather data, etc., are already in the system to help inform the claim," she said. "To be able to cut that to days is really important to policyholders."

AUTOMATION CREATES SMARTER BUILDINGS

While some risk management technologies are made specifically to be used by people, other tools are designed to supplant the human element.

Emerging technologies such as the internet of things, including automated sensors and communications systems that can augment or potentially replace human participation, allow for developments such as so-called smart buildings, said Kenneth Tolson, U.S. president of claims solutions at Atlanta-based Crawford & Co.

"I believe the building will report claims, not people," he said. "That is happening and will continue to accelerate."

Sensors and other technology can also be used to prevent or reduce losses without human participation.

Property insurance policyholders can deploy water mitigation technology to inform them when they have a leak, such as at "5 p.m. Friday when everybody's already gone home," said Rose Hall, vice president, head of construction innovation, at Axa XL in New York.

Such a system can sense the leak and remotely shut off the water, thus avoiding potentially extensive water damage, Ms. Hall said.

"We know that piece of property will be a better risk with the technology than without," she said.

Matthew Lerner

BUSINESS INSURANCE INNOVATION AWARDS

Restrictions on in-person collaboration during the COVID-19 pandemic do not seem to have stifled innovation in the insurance and risk management sector.

As in 2020, nominations for the *Business Insurance* Innovation Awards poured in this year, with insurers, brokers, technology providers and others submitting a wide range of products and services designed to address problems and issues facing risk managers.

Several of the submissions addressed problems related to the pandemic, others were designed to deal with climate change-related issues, and many were directed at making the risk management process more efficient.

The program, which is in its 12th year, highlights innovation across the sector and recognizes some of the outstanding work being carried out at companies ranging from global insurers and brokers to specialist startups.

The 12 winners were determined by an independent panel of judges composed of professional risk managers, who reviewed and scored all of the entries.

The 2021 Innovation Awards judges were Michelle Bennett, senior director, executive staff operations, at Cable One Inc.; Luke Figora, vice president for operations at Northwestern University; Jason Mezyk, vice president, risk and insurance, at Revantage Corporate Services, a Blackstone company; Audrey Rampinelli, senior vice president, risk management and insurance services, at Mastercard Inc.; Jennifer Reno, global risk manager at QVC Inc.; Lori Seidenberg, global director of real assets insurance risk management, at BlackRock Inc.; and Carlos Sintes, claims manager at Fortune Brands Home & Security.

The winners will be recognized during a virtual awards event on Sept. 30. For more information, visit businessinsurance.com.

Gavin Souter, editor

THE WINNERS

CorVel

VIRTUAL FUNCTIONAL RESTORATION

When CorVel Corp. set out to create a model for treating patients with chronic pain using a virtual approach that emphasizes behavioral therapies, the claims management company had to overcome some long-established traditions around patient care.

Chronic pain management has traditionally focused on biomedical models that rely heavily on medical intervention, and treat patients largely with medication and surgery, said David Lupinsky, vice president of digital health and innovation at CorVel in Sacramento, California. It's been a challenge to convince some in the medical community that a more holistic way of treating patients can lead to better outcomes, he said.

CorVel, however, has managed to change attitudes, treat chronic pain patients with a broader approach to well-being and help risk managers resolve claims faster with its Virtual Functional Restoration program, a winner of a 2021 *Business Insurance* Innovation Award.

The program identifies cases in which injured workers' progress toward recovery is slow, and, therefore, resolution of the claim is likely to be delayed, Mr. Lupinsky said.

Signs that a patient is at risk include frequent emergency room visits or long-term use of medications, he said.

If the risk manager and claims adjuster agree that a patient's care could benefit from a virtual functional restoration approach, CorVel asks the patient's physician to allow it to become a secondary provider.

"We've found that a lot of providers are looking for help with this population," Mr. Lupinsky said. "If they agree, we reach out to the patient through telehealth and start to interact with them as a secondary provider."

David Lupinsky

Traditional care is often provided by doctors, physical therapists and psychologists in silos, with little interaction among them, he said. The virtual program allows care providers to easily interact in an online setting, he added.

"With telehealth, it's much easier to get everyone in the exam room because it's not bound by geography," he said.

The program of medical, physical and behavioral health care is conducted virtually, and only in rare cases when a patient may benefit from a medical procedure are they referred to an outside provider, Mr. Lupinsky said.

Risk managers benefit from the program's ability to identify chronic pain cases at risk of delayed recovery, allowing them to address those cases early, accelerating resolution of the claim and making sure injured workers can get the care that will allow them to return to work, he said.

Michael Bradford

eDriving

MENTOR BY EDRIVING

Telematics technology aimed at improving driving habits has been in use for several years, but developers continue to strive to enhance the tools to enable fleet managers to monitor drivers more effectively.

That's what inspired the development of Mentor by eDriving, a smartphone app that identifies risky driving behaviors, recommends training modules and acknowledges safe driving habits.

To accomplish this, the FICO Safe Driving Score, a standardized scoring format for telematics, was developed in partnership with the credit-scoring company. The app evaluates and scores driving behaviors after each recorded trip with a 1-to-850 score.

Recent upgrades have been made to improve the effectiveness of Mentor, a winner of a 2021 *Business Insurance* Innovation Award. Now it can report on a portfolio basis for risk managers and insurance companies. "That is a big development," said Jim Noble, chief risk officer at Cape May, New Jersey-based eDriving.

Other additions include crash detection, driver event reporting and vehicle inspection reports, he said. Also being released is an emergency crash response feature "that detects crashes and rolls emergency equipment to the scene when a driver is in distress," he added. The function has an SOS feature that can be employed if a driver feels threatened.

Data collected through the app is compared with crash information to ensure that it can identify drivers who need improvement. The system also assigns training modules based on their driving patterns.

"If they are weak in braking or speeding, they get training in those areas. Or if they are a very good driver, it focuses on defensive driving techniques that will benefit them," Mr. Noble said. "That is a huge lift for risk managers to be able to do that without having to develop their own spreadsheets as well as incentive and risk improvement programs."

Jim Noble

Andrew Barratclough

Another update enhances the app's privacy protocols, Mr. Noble said. To ensure privacy, an opt-out button was developed, so that, "the app can measure, but it won't score if you're not at work," he said.

Andrew Barratclough, vice president, insurance, for the United Kingdom, Europe, Middle East and Africa at eDriving, noted that the only pushback he has had regards location data. "We're very clear that we don't share that information with management or insurers," he said.

Another recently launched feature enables fleet users to see how safer driving can improve the sustainability of their fleet by reducing fuel use and emissions. "We see Mentor having a role in sustainability," Mr. Barratclough said.

Caroline McDonald

FM Global

EQUIPMENT BREAKDOWN

The breakdown of equipment is a critical issue for businesses as it can result in costly property damage and business interruption. In 2016, FM Global saw that equipment breakdown was driving more severe property losses than natural hazards or fire loss, especially in the power generation, chemical, pulp and paper, and metals and mining industries.

The Johnston, Rhode Island-based insurer developed Equipment Breakdown, a predictive analytics tool designed to help risk managers prevent losses and to reduce large property losses of over $10 million.

FM Global has more than 250 field engineers who go out and analyze about 60,000 pieces of critical equipment across its client base, said Brion Callori, senior vice president, engineering and research, at FM Global. They assess "what the deficiencies of a particular piece of equipment are, quantify in financial terms the impact if something goes wrong, and identify how they can improve that equipment," he said.

Equipment Breakdown, a winner of a 2021 *Business Insurance* Innovation Award, focuses on four types of equipment that generate the most losses: gas turbines, steam turbines, transformers and generators.

A range of mechanical breakdown issues can occur with the equipment, Mr. Callori said. "When they break down it's costly from two perspectives. As equipment gets more complex and larger the property value is significant, but what really drives the size of loss is the time element component," he said.

Businesses tend not to have the redundancies built into their systems that they had decades ago, making it more difficult to keep running if a critical piece of equipment breaks down, and replacements take longer during the COVID-19 pandemic, he said.

The interactive, online tool feeds descriptive characteristics such as the age, make and model number of the equipment, information on its operational cycles, the field engineers' evaluation and a series of loss data into an algorithm that comes up with a ranking.

The goal is to prevent breakdowns, but the tool also provides benchmarking, "so that across the fleet of a type of equipment that we insure, we can identify for clients where they rank and give them an idea from a frequency and severity perspective" whether an individual piece of equipment will be less or more likely to have a loss, Mr. Callori said.

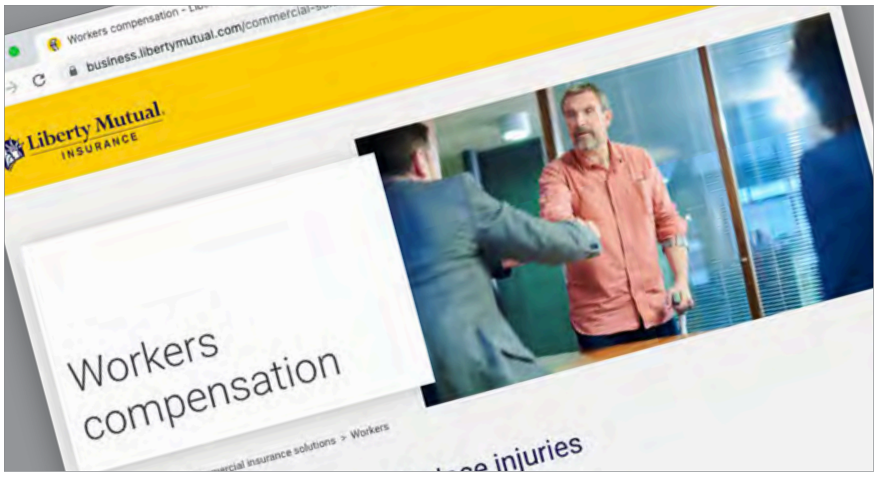
From there, businesses can better understand where they should make capital investments to improve their equipment, he said.

Claire Wilkinson

Brion Callori

Liberty Mutual Insurance

LIBERTY MUTUAL ERGOVALUATOR



Lifting, pushing, pulling or carrying items without practicing sound ergonomics have contributed to more than $13 billion a year in medical and lost wage payments, according to Liberty Mutual Insurance Co.'s latest Workplace Safety Index, which was released in 2020.

"This (risk) hits just about every industry, from manufacturing to hospitality, hotels, construction. ... Just about every industry has movement of materials," said Craig Karasack, Pittsburgh-based product director of ergonomics and manufacturing tech for Liberty Mutual. "The No. 1 injury is handling objects."

Such was the catalyst behind the insurer's "ErgoValuator," an app introduced in July that enables employers to film a worker's posture while completing tasks and uses artificial intelligence to provide corrections. The app is winner of a 2021 *Business Insurance* Innovation Award.

In minutes, after submitting video to the app, the program provides tools to identify movement modifications that can be applied to reduce the risk of injury.

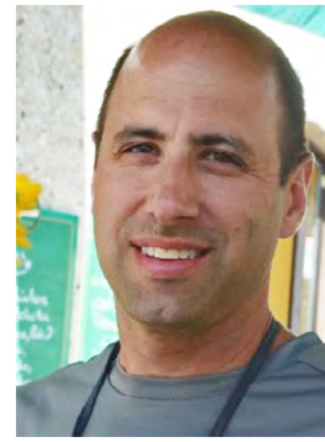
The app also provides opportunities to input biometrics, such as height, and the force applied to an object to gauge risk and recommend movement modifications, said Mr. Karasack, who helped develop the app.

For example, the app can tell someone evaluating a task whether, if an item being lifted were lighter or if the person didn't have to reach too far, the risk of injury could be mitigated, he said.

As part of its marketing, Liberty Mutual features a real-life example of a risk manager at a large retailer who asked how much difference it would make in risk if the warehouse used elevated pallets for heavier products so that workers wouldn't have to bend down as far to retrieve them.

A traditional analysis took multiple visits and lasted a week, according to Liberty Mutual. It later applied the ErgoValuator and quickly determined that raising products by two pallet heights, about 10 inches, would cut the injury rate by 4-6%.

"In the hands of an ergonomist, it can be extremely helpful in change management," Mr. Karasack said.



Craig Karasack

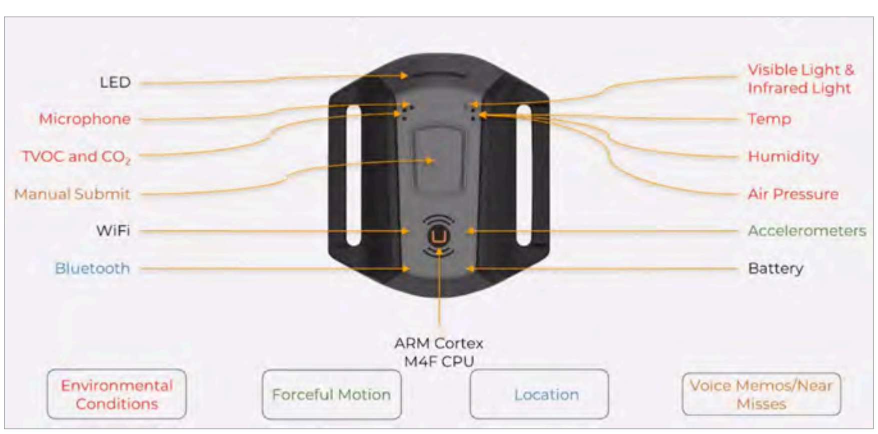
Dorothy Doyle, Boston-based general manager of risk control services for Liberty Mutual, called the app "the next step in the evolution of evidence-based tools."

"This allows quick evaluations, quick engineering … to hopefully avoid injuries," she said. "This can have an impact across industries given the breadth of that kind of loss, or injury."

Louise Esola

MakuSafe

MAKUSAFE WEARABLE & MAKUSAFE RISK ANALYTICS PLATFORM



Workplace injuries can result from various factors, including unsafe conditions, unanticipated risks and the weather. And while continuous safety upgrading and innovations are making headway, accidents still claim lives.

For Gabriel Glynn, co-founder and CEO of MakuSafe, a winner of a *Business Insurance* 2021 Innovation Award, this is personal, because his father, before his retirement, was responsible for the safety of more than 2,000 workers, he said. Mr. Glynn also learned that much of his father's time was spent filling out forms and ensuring compliance with regulatory requirements.

When he began to dig deeper into the issue of workplace safety, "what I discovered was tragic," Mr. Glynn said. "More than 1,000 people a day lose their life in a workplace accident."

Because many workplace conditions can lead to injuries or fatalities, "an important question was what convergence of factors is responsible for accelerating risk?" he said.

This led to the insight that if such data could be collected, "we could begin to do what meteorologists do and forecast when and where risk will be heightened," Mr. Glynn said.

To be effective, however, data would need to be gathered on an individual worker basis. Identifying the issues would mean processing the data in real time to pinpoint unfavorable conditions and intervene before an accident occurred.

The outcome was MakuSafe, a matchbook-sized device worn by workers that was launched in the fall of 2020. Numerous sensors monitor environmental conditions faced by each worker in real time, without collecting personal data.

The device is also nonintrusive. "We don't provide feedback to the worker such as beeping, shocking or alerting to make them think they are doing something wrong," he said. Instead, when conditions become unsafe, such as exposure to heat exhaustion, high noise levels, poor air quality or low light levels, real-time notification is sent to safety or operations people.

Once they have this information, "they can address the problem directly with the person involved," he said.

The results, especially from insurance industry companies that have tested the product with policyholders, "are remarkable," Mr. Glynn said. "They are seeing a more than 50% reduction in claims and more than 90% reduction in the severity of claims."

Gabriel Glynn

The take-up "has been pretty lightning fast for us," he added. "Since our launch in the fall of 2020, we now have job sites in about 20 states and two countries — and soon we will be in four countries."

Caroline McDonald

Marsh

RISK RESILIENCE DIAGNOSTIC

While Marsh LLC has long focused on helping companies strengthen their resilience against risks that could hit their organizations, the COVID-19 pandemic helped shape a new diagnostic tool from the brokerage and spurred its further development.

The crisis heightened the realization by the broker and its clients that a gap existed in identifying the intersection of risks along an organization's value chain, said Reid Sawyer, Chicago-based head of Marsh's emerging risks group. The pandemic showed how the lack of such knowledge can hinder risk management, and it gave rise to the final version of Marsh's Risk Resilience Diagnostic tool, he said.

"The pandemic is a systemic-level risk that really challenged our clients to think about stressors across their value chains," Mr. Sawyer said. For example, "we had a corresponding epidemic of ransomware while we were in the middle of the pandemic," and supply chains were suffering increasing interruptions, he said. "It really brought into focus the idea of interdependency of risk."

Introduced earlier this year, The Risk Resilience Diagnostic tool, a winner of a 2021 *Business Insurance* Innovation Award, has delivered more than 800 "risk resilience responses" to Marsh clients.

Marsh's tool gives risk managers the ability to examine the interrelation of six categories of risk: pandemic; cyber; emerging technologies; regulatory; geopolitical; and climate/environmental, social and governance. It analyzes the potential impact of the emerging risks as they intersect across a client's organization to affect its physical assets, supply chain, human capital, reputation, share price and other areas, Mr. Sawyer said.

The tool gathers information through a self-guided survey that can include input from multiple stakeholders across an organization. The input forms the basis for the risk resilience responses, which include an overview on how to read the diagnostic results, a resilience score for each peril and benchmarking data that shows scores by industry. The findings are intended to be shared with senior leaders and board members to foster resiliency discussions.

Reid Sawyer

"Resiliency shouldn't be viewed solely through the lens of recovery time, response capabilities or redundancies — the ability to get up after being knocked down, which is all too often how we have defined it," Mr. Sawyer said. "Instead, what we do in the report and what we are measuring comes back to the capability to perform during times of crisis and prolonged hardships like what we've seen over the past 18 months with COVID-19."

Michael Bradford

Marsh

SPAC D&O INSURANCE SOLUTION

The recent explosion in special purpose acquisition companies — with twice as many placements in 2020 as there were in the previous 10 years — led to an overheated market, with major increases in cost and harsher terms and conditions, said Machua Millett, chief innovation officer and SPAC and de-SPAC practice leader at Marsh LLC's FINPRO U.S. unit.

"In October and November of 2020, we saw the SPAC marketplace take a real turn," he said. Retentions increased by five to 10 times and premiums by three to five times between October 2020 and March 2021, according to Marsh.

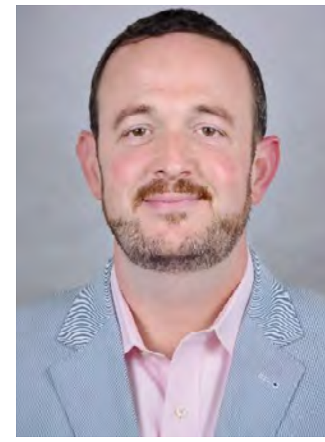
Traditional directors and officers liability insurance coverages "were misaligned with how SPACs and de-SPACs worked," Mr. Millett said. De-SPAC transactions occur when there is a merger between a private operating company and a publicly traded SPAC.

Mr. Millett said Marsh took the traditional D&O product "down to its studs," taking into account that these so-called blank check companies have no real balance sheet; have only a small amount of working capital; are designed to do a deal within at most 24 months; and pose little significant litigation risk until after the de-SPAC deal is closed.

The product, which was introduced in February and is a winner of a *Business Insurance* 2021 Innovation Award, is a hybrid model. It typically offers $2.5 million in limits during the SPAC's investment period and doubles in size to $5 million during the post-de-SPAC stage, with excess coverage available, Mr. Millett said.

There is one primary insurer, which Marsh declined to identify, and about a half-dozen insurers that will write the business on an excess basis, Mr. Millett said. All the insurers involved are major publicly held U.S. D&O insurers, he said.

In addition to being designed to reflect how SPACs and de-SPAC transactions work, the product saves policyholders about 40% on their upfront insurance premiums, Mr. Millett said. It has also reduced applicable retentions by half compared with the market, according to Marsh.



Machua Millett

Mr. Millett said the coverage realigns the relationships between insureds and their insurers along the lines of these transactions' particular risks.

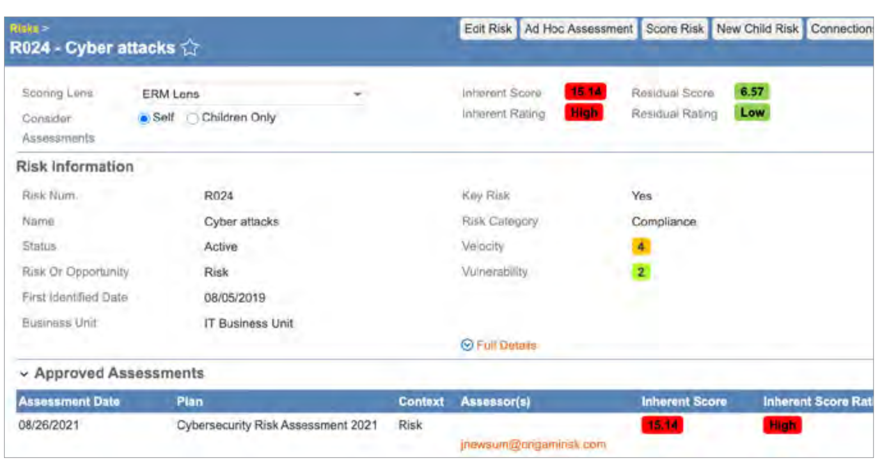
"It's a balancing of interests" that is not about one party taking advantage of another, he said. "This product has helped to bring this balance back."

Mr. Millett said the broker had bound about 40 of the policies as of late August. "It has caught on very quickly."

Judy Greenwald

Origami Risk

ERM CROWDSOURCING ASSESSMENT



Aiming to get past the common practice of relying on a single person within a business department or function to assess specific risks, Origami Risk LLC was inspired by an internet collaboration technique — crowdsourcing.

Risk managers traditionally have sought support from executives across their operations to identify and assess risks within their functions. It can be a time-consuming process and might not be as thorough as it should be, said Joshua Newsum, Phoenix-based GRC solution architect with Origami.

A more efficient way to gain a full view of risk across business areas would be to ask multiple individuals in a department or function to participate in risk assessments, Mr. Newsum said. After analyzing their input, risk managers would be able to make better-informed decisions regarding mitigation and management of risks, he said.

And that's why Chicago-based Origami developed its ERM Crowdsourcing Assessment solution, a winner of a 2021 *Business Insurance* Innovation Award.

Origami developed the tool, which is offered as part of its enterprise risk management suite, with input from risk managers involved in large-scale enterprise risk initiatives. It automates the collection of risk assessment scores from multiple individuals, replacing more traditional assessment methods that can be cumbersome and take a lot of resources to conduct, Mr. Newsum explained.

Risk managers want to engage their entire business when considering how to protect their organizations, he said. They need feedback from many individuals, he said, "and this is why we needed this solution."

Risk managers no longer need to consider that a single person owns a particular risk and their opinion of it is the only feedback that matters, Mr. Newsum said. Instead, using the crowdsourcing assessment tool, they can survey multiple employees within a single department, at different business units or in various locations to get their opinions on the risk.

The tool requires no training for "assessors" identified by the risk manager to receive a questionnaire by email, Mr. Newsum said. The assessor is asked to

Joshua Newsum

score a risk according to such factors as its potential impact on the organization and the likelihood of a loss.

The solution represents a shift away from a "fear of risk," Mr. Newsum said, by gathering "very straightforward opinions and feedback on risks so that we can take proper action within the organization and align that to strategy. That's really the underlying reason why we built a feature like this."

Michael Bradford

Parametrix Insurance Services

CLOUD DOWNTIME INSURANCE

A booming market for internet commerce has left thousands of companies depending on cloud computing to keep their business running, while creating an exposure that until recently was left uninsured.

Even as cyber liability insurance has become more widely available, many businesses remain vulnerable to losses that would arise if the cloud goes dark, according to the developers of Parametrix Insurance LLC's Cloud Downtime Insurance, a parametric product that is triggered if service is interrupted.

"Businesses lose billions of dollars a year," because of cloud services downtime, said Neta Rozy, Tel Aviv, Israel-based chief technology officer at Parametrix.

Parametrix's cloud downtime coverage is a winner of a 2021 *Business Insurance* Innovation Award.

"Anyone using the cloud in a mission-critical manner" has downtime exposure, Ms. Rozy said. Interest in the product, which was launched as a "proof of concept" in Israel and is expanding into the U.S., is strong from companies that include event-related businesses, streaming services, internet gaming sites and financial services companies, she said.

Parametrix developed the product with input from Tokio Marine Kiln Group Ltd., one of the insurers that underwrites the coverage, and specialist broker Howden Broking Group Ltd., the distributor of the coverage.

Luke Ogunlaja, London-based innovation underwriter with Tokio Marine Kiln, served as a mentor to Parametrix while the product was being refined in the Lloyd's Lab, which helps startups create solutions that can bring value to the Lloyd's of London market.

The coverage is triggered by an agreed period of downtime. Limits up to $1 million are available while the product is in its early stage, Mr. Ogunlaja said. "The intention is for us to closely monitor how this parametric insurance solution behaves, but more importantly for us to continuously learn from customer feedback before we consider offering larger limits to our clients."

When coverage is triggered, the policyholder is asked to attest to its loss, and the agreed indemnity amount is paid. Claim notification is made simultaneously to the risk manager, broker and insurer.

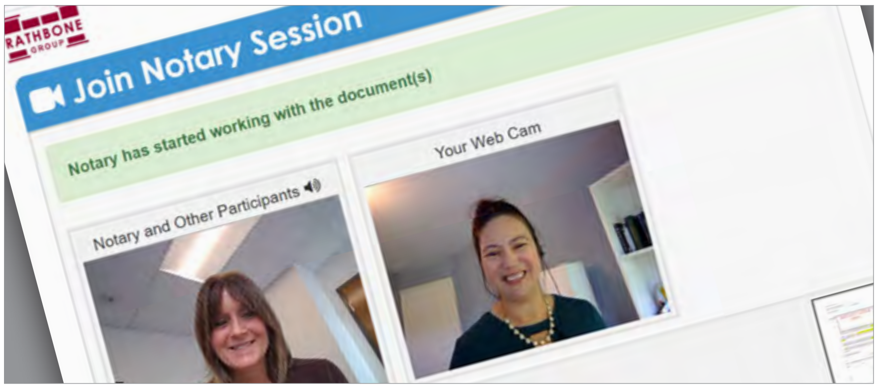
Neta Rozy

Companies may need to rethink the structure of their cloud providers so that downtime in one region can be minimized by relying on service from another part of the world, Ms. Rozy said. "If we see that the customer has a higher risk of downtime, we share that information with them and a few tips and tricks on how they could add some redundancy and lower their risks."

Michael Bradford

Rathbone Group

E-NOTARY SERVICE



One of the most remarkable features of the pandemic response last year was the ability of many businesses to move from 100% office-based work to 100% remote in a matter of days.

Tapping into existing technology, quickly developing workarounds and making accommodations for problems that couldn't be overcome, companies shifted from working environments that had endured for decades to working from home.

Some seemingly small difficulties remained, however, and caused significant headaches. One that plagued the insurance and risk management sector was the need for documents to be notarized, said Rebecca W. Wright, Cincinnati-based member partner at Rathbone Group LLC, a law firm that specializes in insurance subrogation work.

"Our clients had put in travel restrictions," she said. "They were working from home and they were not supposed to go anywhere on behalf of the company, so that meant they could not drive to the local bank to have things notarized."

Even when the courts reopened, subrogation agreements could not be agreed to without the documents being notarized, Ms. Wright said.

To try to solve the problem, she looked at some existing online notary services but found them expensive, with some charging $25 per signature, and set up to do low-volume work, such as individuals obtaining a mortgage. "That's not what my clients needed. They needed to be able to do things in bulk and they needed to be able to do things regularly."

To solve the problem, Ms. Wright first became certified as an online notary and then located an online platform — DocVerify Inc., which was designed for remote signing — and used it to develop Rathbone's e-notary service, which is a winner of a 2021 *Business Insurance* Innovation Award.

The service can complete up to 30 notarizations in a session, and the process is completed in minutes, she said.

The platform provides a secure audio-visual connection through which the client submits his or her photo and identification and opens two windows — one showing the notary and the other showing the client.

The documents, which are uploaded in advance, can then be completed using electronic signatures and an electronic notary stamp.

Rebecca Wright

Rathbone completed 350 notarizations in the past year and the system will likely be used beyond the pandemic, Ms. Wright said.

Many companies are moving to a full or partial work-from-home setup and others prefer the efficiency of the process, she said.

Gavin Souter

Sedgwick

SEDGWICK'S RESPONSE TO SENATE BILL 1159

To follow the spread of COVID-19, California enacted Senate Bill 1159 in September 2020. The bill made every employer responsible for reporting those employees testing positive for the disease to their claims administrator within three days, retroactive to July 6, 2020, and effective until Jan. 20, 2023. Organizations that do not meet the requirements face stiff fines for noncompliance.

The law's definition of an outbreak is explicit: "Positive cases at a particular location and within a specific time frame," said Leah Cooper, managing director, global consumer technology, at Sedgwick Claims Management Services Inc. in Chattanooga, Tennessee. "It wasn't simple to compute, because every day there might be another case to be added. And the Senate Bill also required employers to use the number of employees that worked at a location to determine an outbreak."

The precise mandates and complexities of the law prompted Sedgwick to develop its Response to Senate Bill 1159, a winner of a *Business Insurance* 2021 Innovation Award, as a reporting tool for its clients in California.

"This is where Sedgwick had a unique opportunity to combine the need for innovative technology with a history of strong business process and expertise," Ms. Cooper said. "We were able to leverage a brand-new platform, called our Global Intake Platform."

To date, more than 2,000 organizations have used the tool in multiple industries, including transportation, retail and health care.

To access the intake portal, clients were assigned unique access codes, said Jennifer DeSmedt, vice president, client services.

Training was also provided to clients and Sedgwick staff, she said. "We needed to be sure everyone was aware of the bill and what solution we had for them. So, when a client logs into the platform, they are providing the basic information required by the law," Ms. DeSmedt said.

Sedgwick clients have information available to them on a daily basis regarding cases that have been reported for their organization and which ones potentially fall into an outbreak situation, she said.

Leah Cooper

Jennifer DeSmedt

The technology has been central for risk managers because of the difficulty in accurately tracking the information, "especially since some risk management departments may not work with their benefits team or their health care management team," Ms. Cooper said. "They needed a solution to be able to input that information and to track it."

Caroline McDonald

Swiss Re Corporate Solutions

PARAMETRIC HAIL

Parametric insurance coverage has been available for more than a decade but has often been seen as expensive compared with traditional coverage.

In the hard market, though, parametric coverage can provide much needed coverage at a comparable price for some tough risks, such as hail exposures, and the contracts are much simpler than traditional insurance policies, said Cole Mayer, San Francisco-based vice president for Swiss Re Corporate Solutions, a unit of Swiss Re Ltd.

The insurer developed a parametric coverage for hail last year, and the product is a recipient of a *Business Insurance* 2021 Innovation Award.

Interest in the coverage comes mainly from auto dealerships, which have open car lot exposure; public entities, including universities, cities and counties; and the solar industry, which deploys ever more glass panels facing skyward into harm's way.

Swiss Re has bound 40 parametric hail policies since its soft launch in March 2020 and recorded more than $1 million in first-year premium, Mr. Mayer said.

The policy trigger is based on the size of a hailstone, in quarter-inch increments, as verified by CoreLogic Inc., an Irvine, California-based data and analytics provider, he said.

Insured locations are defined as points of latitude and longitude. Limits are available up to $5 million, or potentially higher depending on the exposure, geography and client profile, Mr. Mayer said.

Parametric contracts are shorter and simpler than traditional insurance contracts involving the same perils, he said. For example, a parametric contract can be nine pages, with few if any exclusions, compared with 90 or more pages for a traditional contract laden with declarations, exclusions and supplements.

Parametric coverage also pays out quickly once a loss has been verified. The Swiss Re product is designed to pay out within 30 days.

Parametric covers can complement traditional coverage with rates rising in a tight market, Mr. Mayer said.

"With limits generally shrinking and deductibles increasing, that's where parametric can really help to fill one or both of those gaps," he said.

For traditional dealer open lot coverage, for example, "what you're seeing … is deductibles going up significantly. Sometimes limits are being constrained, and pricing continues to increase. That's why we've seen a lot of the success we've seen in the dealer open lot space," he said.

Cole Mayer

While higher comparative pricing has long been the Achilles heel of parametric coverage, parametric hail coverage can now supplement traditional cover "at a price point that is similar or sometimes a little less expensive than the equivalent traditional insurance," he said.

Matthew Lerner

Competitors or catalysts? Evaluating insurtech´s role in the insurance industry

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The insurance industry has been an obvious target for digital transformation, with antiquated information technology stacks that still engage paper, phone and fax processes. That feels like a relic to those exposed to industries that are multiple decades into a digital transformation. Seeing this opportunity, some early insurtechs followed the model of Uber and Facebook — "move fast and break things" — but over time, that hasn't been the primary story.

In the past decade, insurtechs have disrupted the long-standing status quo of traditional insurance incumbents dominating the industry's market share. The most successful insurtechs are removing the operational friction that has marked the industry for decades by using intuitive technology to solve complex business challenges with solutions that manage to keep the policyholder at the forefront.

Insurtechs are at times misinterpreted as competitors trying to steal market share from legacy commercial insurers and brokerages. This overlooks how insurtechs are providing a catalyst for the insurance industry, seeking to fill in gaps in the overall value chain. The technology introduced by the companies, and the efficiencies they create, ultimately realign the benefit to each insurance stakeholder and enhance the industry at large.

Innovating the user experience

Insurtechs are evolving the traditional policyholder and broker processes by leveraging technologies and solutions previously reserved for the Big Tech giants, like artificial intelligence, custom applications and native digital platforms.

The insurtechs that deploy AI have an advantage in developing technology due to their expertise in collecting and applying actionable data that traditional organizations often lack. Incumbent insurers instead must rely on their own historical claims data and are unable to take advantage of newer data sets that come by way of social media, government or other data produced with proprietary software, placing them at a disadvantage.

Many insurtechs also deploy digital platforms and applications built on innovation in user experience, or UX. Digital experiences within the insurance sector are only effective when the designs reflect the needs of brokers, policyholders and other stakeholders, which is difficult to measure without sophisticated product management techniques. Early attempts at digitizing insurance processes were mired in poor UX design, with portals developed under the misguided assumption that any digital experience was superior to old-school practices. Insurtechs that fully take advantage of modern product management practices borrowed from leading technology companies can analyze the digital habits of brokers and policyholders to develop tailored solutions that are highly effective in aiding their regular tasks, rather than replacing one cumbersome process with another.

Balancing digital efficiencies and the human element

Many insurtechs serve as marketplaces for consumers to more transparently compare quotes and understand how insurers determine rates. They create efficiencies through tailored experiences, cutting costs and creating savings.

While digitization enables these efficiencies, it is not the same as automating humans out of the underwriting process. In fact, the success of these technologies depends on striking the right balance to allow for human judgment. For instance, a human underwriter equipped with improved data insights can make a better policy decision than today's AI would alone, or than it would with only traditional historical actuarial tables.

Insurtech provides the tools to make the overall experiences for humans easier and more gratifying. Prioritizing the human element within these technological advancements should be at the core of the innovations taking place within these traditional entities. Not only does it showcase how tech-powered enhancements are essential, but it also is a great representation of how the people within the organization are the true decision-makers.

Maximizing stakeholder benefits

Each area of insurtech innovation opens up a new opportunity to expand and create value for stakeholders: reinsurers, insurers, brokers, underwriters and policyholders.

Insurtech has made insurance more widely accessible than ever, creating a tech-powered consumer marketplace. Facilitated by the access of the web, brokers and providers can open themselves up to entirely new markets, while also taking advantage of the efficiencies and the larger prospective customer pool that comes with the territory. With these advancements, brokers can be positioned as the resource that teaches customers and business leaders how to use these new technologies effectively with minimal risk.

Underwriters are often considered to be insurtech's primary casualty as automation takes hold — but that is not the full picture. Data-driven underwriting requires the human touch to achieve more accurate, effective coverage. Instead of replacing underwriters, insurtechs help them do their job more effectively and efficiently, with AI working in sync to improve their capabilities. In fact, great data insights can and do also improve the work experience of underwriters.

Commercial policyholders have benefited from insurtechs by taking full advantage of data-powered risk evaluation capabilities they have brought to the table. The industry has been built on the foundation of the judgment calls determined by actuarial science; the introduction of dynamic data to weigh against risk, however, makes for much more accurate, transparent coverage for policyholders.

For reinsurers and other owners of risk capital, it is imperative now more than ever to maximize the tools and expertise that insurtech has brought to the forefront. The same technologies that enable the gathering of data and improved underwriting can provide a view into aggregate risk. If properly packaged and displayed — using the kinds of UX practices discussed earlier in the context of policyholders and brokers — new forms of data can help risk capital to be "smarter" as well.

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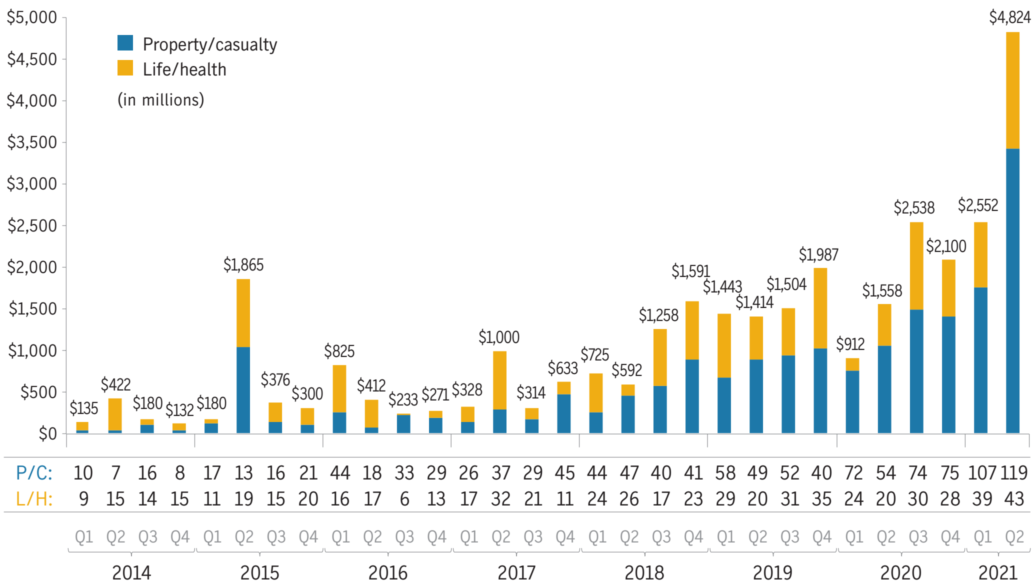
Finally, in a classic expression of the "innovator's dilemma," traditional insurers historically were not structured to make investments in new technology, making them the most likely to be on the losing end of the trend. While insurtechs have the ability to devote the majority of their resources to digital platforms, big data, machine learning and other new technologies, traditional insurers must choose which resources can be allocated across their standard lines of business and go-to-market strategies. Traditional insurers, however, still have the ability to learn from insurtechs. By incrementally leaning into the many technological advancements in the insurance sphere, incumbents can take advantage of the innovation that insurtechs have become the catalyst for, and over time begin to experience the type of advancements that will push the entire industry forward for the better.

DATA

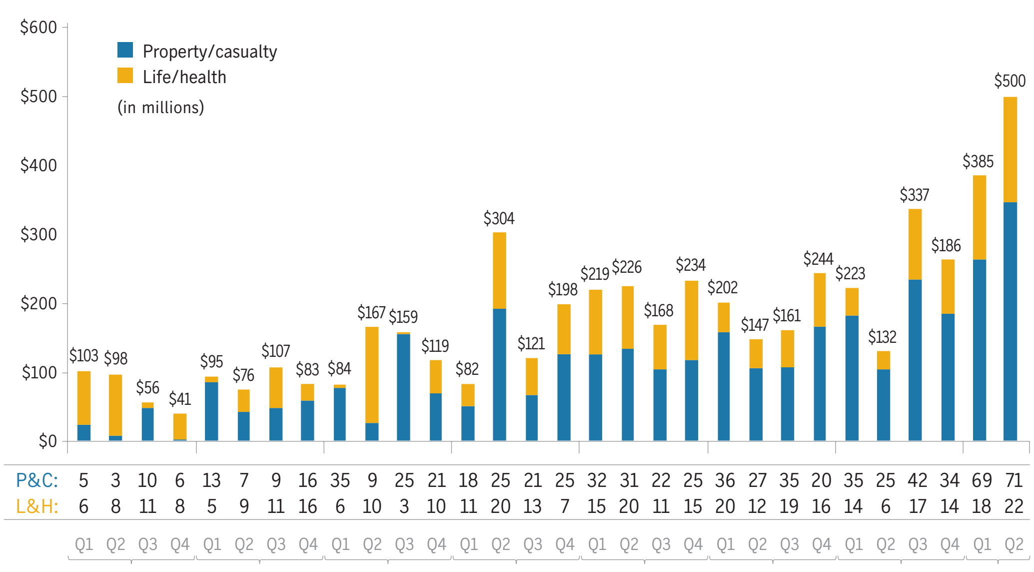
Insurtech by the numbers

QUARTERLY INSURTECH FUNDING VOLUME – ALL STAGES



- Global insurtech funding ballooned to more than $4.8 billion in the second quarter, an 89% increase from Q1 2021 and a 210% increase compared with the same period last year.
- $7.4 billion raised in this year's first half surpassed the $7.1 billion raised for all of 2020 by more than $300 million.
- The number of deals, 162, grew by 119% from 74 in Q2 2020 and 11% from the previous quarter's 146.
- 119 property/casualty transactions continued to drive the majority of investment activity, representing 71%, or $3.4 billion, of deal share.
- 43 life/health transactions represented 29%, or $1.4 billion, in funding for the quarter.

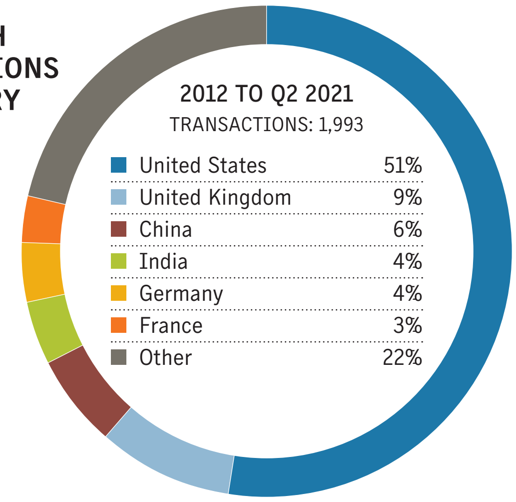
QUARTERLY INSURTECH FUNDING VOLUME – EARLY STAGE

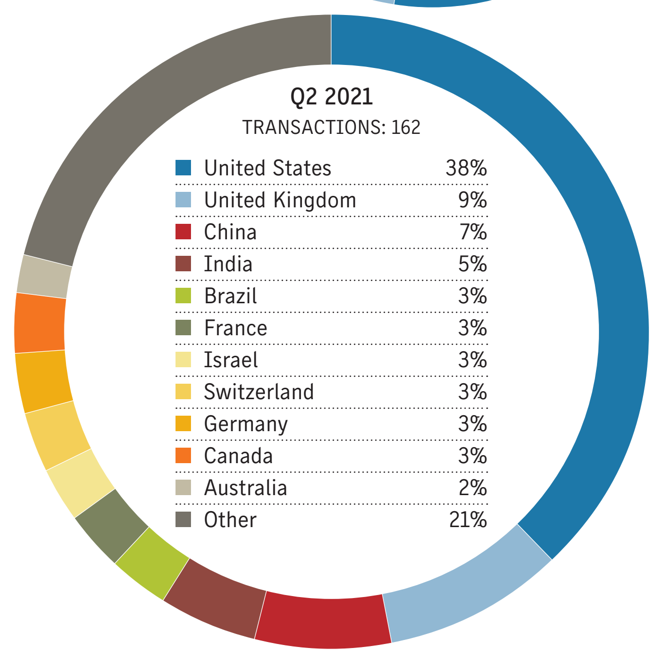


- Early stage funding volume of $500 million in the second quarter hit an all-time high, accounting for 10% of total volume of $4.824 billion.
- There were 93 total early-stage transactions in Q2 2021, an increase of 200% compared with 31 transactions in the same period last year.
- 71 property/casualty transactions in the second quarter represented an all-time high.
- Likewise 22 life/health transactions in the second quarter broke the previous record of 20 transactions in a quarter in Q2 2017, Q2 2018 and Q1 2019.

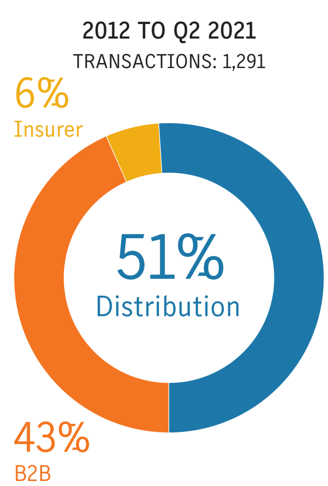
Source: Willis Towers Watson PLC, Quarterly InsurTech Briefing Q2, 2021

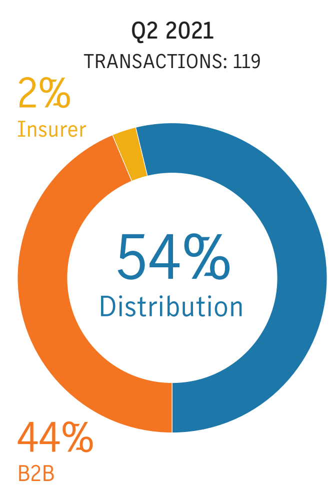
INSURTECH TRANSACTIONS BY COUNTRY



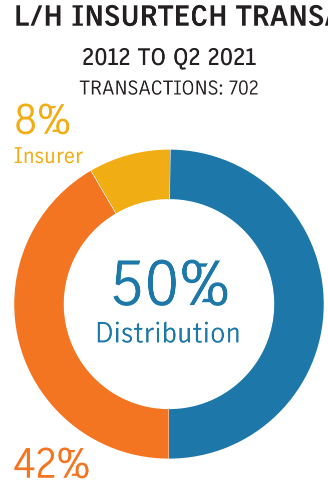


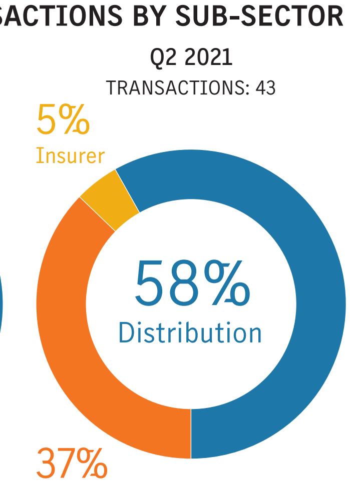
P/C INSURTECH TRANSACTIONS BY SUB-SECTOR





L/H INSURTECH TRANSACTIONS BY SUB-SECTOR





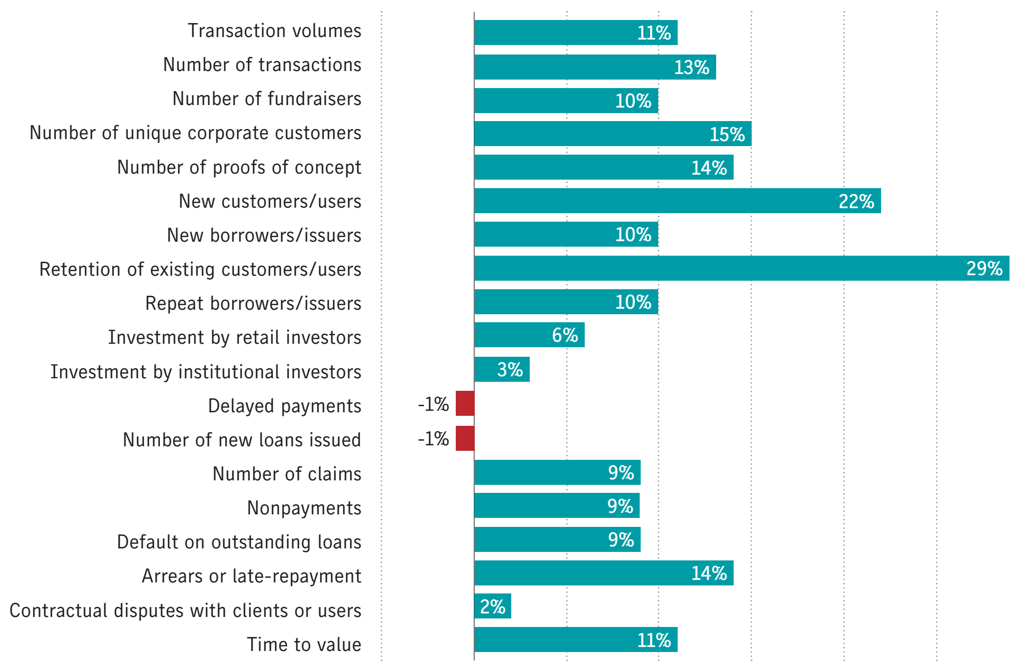
GLOBAL COVID-19 FINTECH MARKET ASSESSMENT

Fintechs continue to grow globally despite COVID-19, according to a December 2020 joint initiative of the Cambridge Centre for Alternative Finance at the University of Cambridge Judge Business School, the World Bank Group and the World Economic Forum.

Overall, the global aggregate fintech industry grew in 2020, reporting an average growth in transaction volume of 11% and an average growth in number of transactions of 13%. The most significant positive change was reported in customer retention or renewal, which increased by 29% compared with the first half of 2019.

STATE OF GLOBAL FINTECH — BY MARKET PERFORMANCE INDICATORS

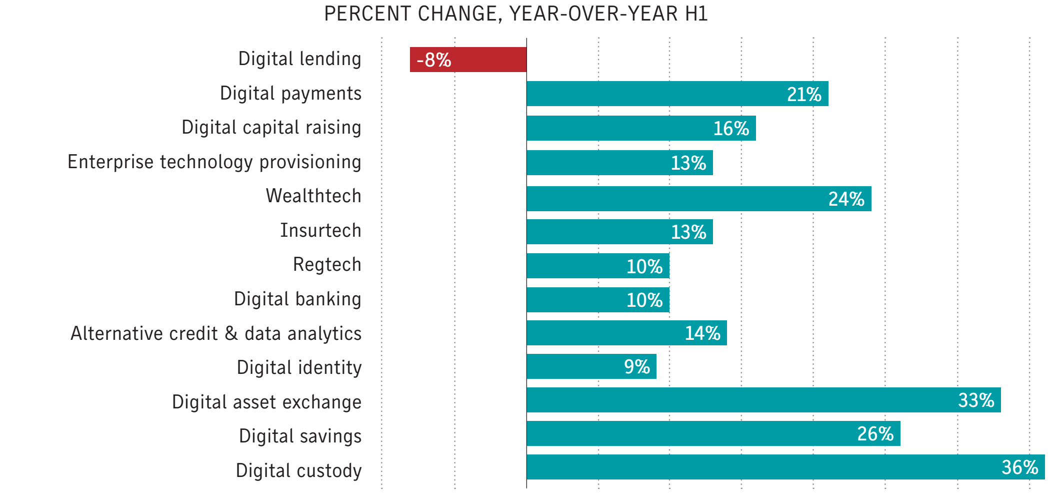
PERCENT CHANGE, YEAR-OVER-YEAR H1



However, the impact of COVID-19 on market performance has not been uniform across fintech business verticals. Except for digital lending, all verticals showed an increase in transaction volume, though the rate of growth varied significantly.

TRANSACTION VOLUMES — ALL FINTECH VERTICALS

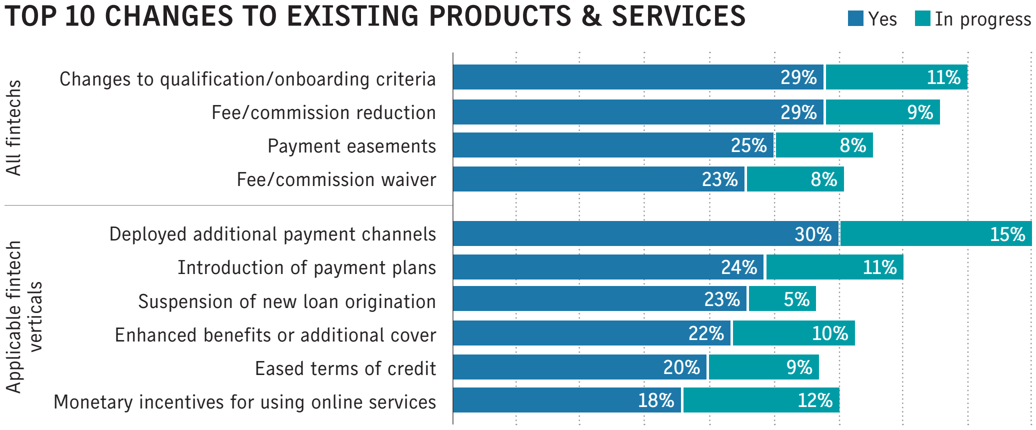
PERCENT CHANGE, YEAR-OVER-YEAR H1



Fintech companies have responded to COVID-19 by implementing changes to their existing terms, products and service agreements. Two-thirds of surveyed companies reported making two or more changes to their existing products or services, and 30% indicated they were in the process of implementing changes.

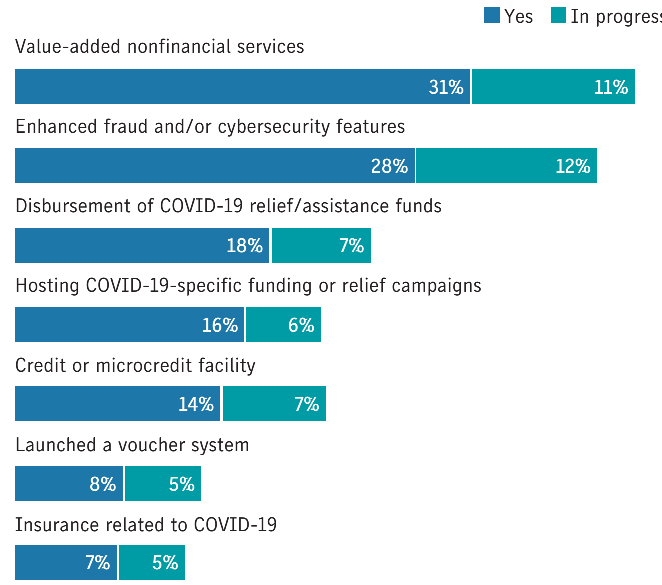
TOP 10 CHANGES TO EXISTING PRODUCTS & SERVICES

Yes In progress



Overall, fintech companies have been responsive to COVID-19, with many adjusting their products, services or policies in recognition of potential changes in their customers' circumstances.

NEW OR UPDATED PRODUCTS/SERVICES/FEATURES — ALL FINTECH VERTICALS

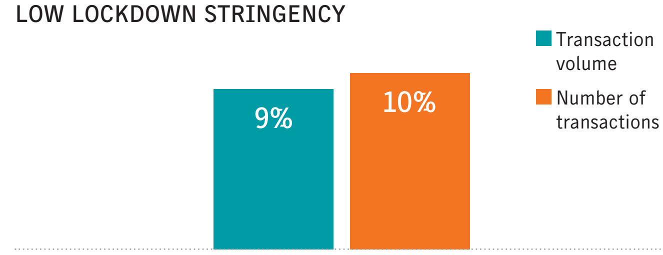


Fintechs in markets with more stringent COVID-19 lockdown restrictions reported larger growth in transaction volume and number of transactions.*

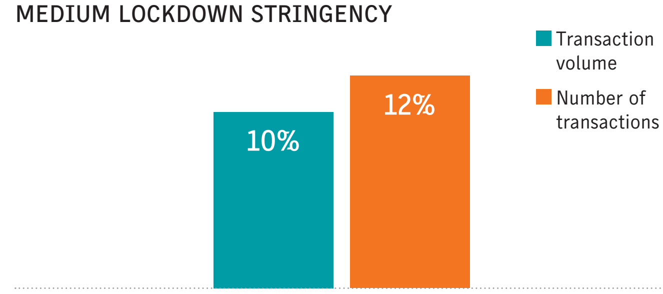
TRANSACTION VOLUMES AND NUMBER OF TRANSACTIONS UNDER LOW, MEDIUM AND HIGH COVID-19 LOCKDOWN STRINGENCIES — ALL FINTECH VERTICALS

PERCENT CHANGE, YEAR-OVER-YEAR H1

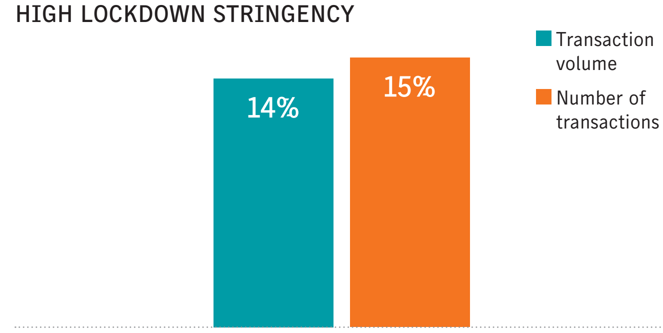
LOW LOCKDOWN STRINGENCY



MEDIUM LOCKDOWN STRINGENCY



HIGH LOCKDOWN STRINGENCY



Source: World Economic Report, The Global Covid-19 FinTech Market Rapid Assessment Study, December 2020.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