

intelligent insurer



**Roundtable:
Underwriters
of the future**





Underwriters of the future

Technology will determine the future of underwriting—the only questions are how quickly and whether it will be an evolution or revolution. These were the topics debated by a panel of underwriters and brokers at a roundtable event hosted by *Intelligent Insurer* in partnership with AdvantageGo.

JOHN FLETCHER: AdvantageGo has provided innovative systems and technology to the insurance industry for many years. It's been interesting to watch how mergers and acquisitions have impacted the way people have to deal with their systems. I'm very interested in hearing about the practicalities of trying to use modern technologies.

NANCY BEWLAY: We are able to automate some of our processes manage and govern data quality, using different types of macros to be able to process how we move our business. We tie that to our pricing models, aggregation models, and risk scenarios.

Within the last six to seven years, we've gone from a more manual approach and having higher percentage of margin for getting it wrong, to a more credible and governed way of doing it; it's not perfect yet but we can trust some of our models, and we can trust our datasets more.

CHRIS HALL: I'd take it a step further. Lloyd's has brought out PPL (Placing Platform Limited) but Liberty brought out our own platform to enable us to better handle high-volume, relatively low-value transactions that

are quite difficult to underwrite in isolation. If you can find a way to automate some of that and get that into a system that is visible to clients, it then makes it easier for them to buy in and take things forward.

RICHARD SPOTSWOOD: In what was a significant development for us, Barbican partnered with FICO to help improve our insured's understanding of their own cyber risk profile and that of their supply chain. The technology also allows us as the insurance carrier to underwrite cyber risk more effectively. FICO is perhaps best known for its consumer credit reports. They've taken this big data analytics approach and built an AI model around predictive analytics for cyber risk.

The system is not designed to replace but rather to inform our underwriting decisions. It allows us to better assess individual risks and also to segment our overall portfolio more accurately by looking at the average score across individual industry sectors. That has been a big step forward for us.

NICK MCGAREY: Beazley historically has been renowned for loving to underwrite large

complex risks. Our online e-trade platform myBeazley has enabled us to enter new markets in the most efficient way possible, and ultimately balance our portfolio. We're rolling it out in Europe; we've got a big network there, and technology allows us to do that.

DERVLA LYNCHHAUN: We've developed our own platform called One TMK and got out into the world of fledgling tech companies and created some strategic partnerships for including one that is developing a pay-as-you-go yacht insurance platform.

We've created an incubator to encourage underwriters to create better products, and also not be afraid of trying things. It's really important to encourage that kind of commitment to the advancement in technology. We're also looking into IoT and parametrics to create customised insurance products for our existing clientele.

FEI LING WOON: In June 2017 we set up the Robotics Centre of Expertise, where we're looking at automating part of the underwriting process. One thing we are working on is around claims fraud detection, which supports the counter fraud team to



identify suspicious claims. That has delivered great benefit because the robot does the initial screening, and then refers any suspicious claims to the counter fraud unit team.

We had recently automated the renewals of the policy entries for our Reinsurance Zurich office. That has delivered great benefits in terms of freeing-up the underwriters, for them to do more value-added tasks, specifically around the renewals seasons.

People work really long hours to do the policy entries, but now you have the robot to do that, freeing them up to do more meaningful tasks.

JANTHANA KAENPRAKHAMROY: Technology has enabled us to cover micro insurance, a lower premium level business that traditional insurance and brokers cannot operate in. We've been able to operate in it and make profit from it, because we have built fully automated platforms.

People don't realise how important it is to service underserved customers, especially some of the professions, for example doctors, or construction workers, lawyers, accountants. The process is so cumbersome it deters a lot of people from buying. That's where we come in.

We built a fully automated platform that allows insurers to connect with the consumer directly via a different route. We take insurers, brokers, directly to the consumer, and use API to automate and open up the market to underserved customers.

This is a very fast-growing customer base. The number of people who are participating in the gig economy is increasing: there is nearly 100 percent growth year on year. We're talking about a mass population and it cannot be ignored.

MCGAREY: You said 'fully automated', but is there such a thing as low-touch or no-

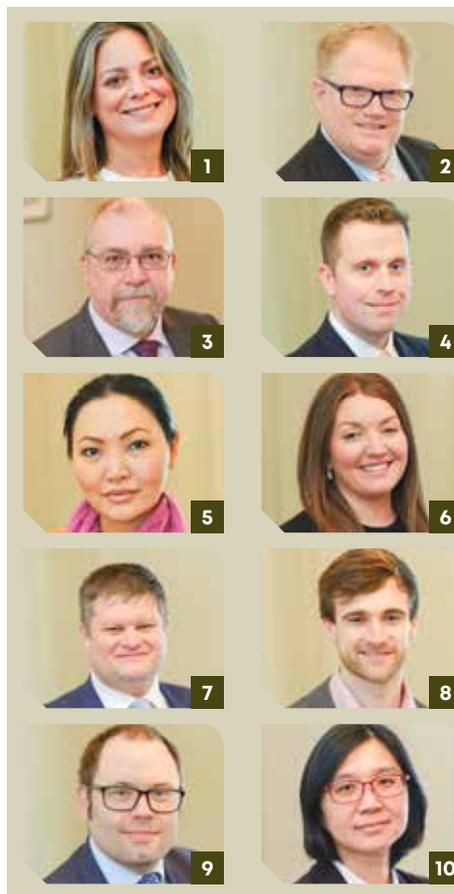
touch SME business? Ultimately, we still operate in a relationship-type business, and as soon as either a broker or the end-customer has a query, that adds costs because they have to speak to someone. How do you get around that?

KAENPRAKHAMROY: Artificial intelligence (AI) is the answer. AI will do two things, one is to help the underwriter with the underwriting process, to help price risk on demand using real data on a usage basis. We want a report that is backed by real data. For the first time you will get the tools to be able to make better and more accurate decisions.

The second part is customer service. We are building a bot to be able to communicate with the customer in a different way. We're going to compile a very comprehensive FAQ, which could be sourced by a bot to communicate with the customer.

Over time we want this process to be so robust that the customer will no longer need to speak to you, and that's when you can really operate in a micro insurance level, still making profits.

BEWLAY: With regard to the sharing economy there is another model concept. We're going out to the technology sector,



IN ATTENDANCE

- 1 NANCY BEWLAY**, global chief underwriting officer, long tail lines, AXA XL
 - 2 DAVID FLANDRO**, global head of analytics, JLT
 - 3 JOHN FLETCHER**, head of consulting, AdvantageGo
 - 4 CHRIS HALL**, senior underwriter, Financial Risk Solutions, Liberty Specialty Markets
 - 5 JANTHANA KAENPRAKHAMROY**, chief executive officer, Tapoly
 - 6 DERVLA LINCHEHAUN**, liability underwriter, TMK
 - 7 NICK MCGAREY**, focus group leader for international private enterprise and e-trading, Beazley
 - 8 BEN ROSE**, lead consultant, insurtech, Aon Inpoint
 - 9 RICHARD SPOTSWOOD**, head of cyber & technology, Barbican Syndicate 1955
 - 10 FEI LING WOON**, lead analyst, robotics and automation, MS Amlin
- MODERATOR:** Wyn Jenkins, editor, *Intelligent Insurer*



“We want this process to be so robust that the customer will no longer need to speak to you.”

Janthana Kaenprakhamroy

especially in relation to the sharing economy, and saying OK it’s really a three-party contract; it’s the platform itself, it’s those who put their services onto the platform, and it’s those who use it. The traditional insurance contract doesn’t recognise that third party.

We can’t underwrite the risk in a traditional manner because there is an extremely high volume of transactions that flow through the platform. We partner with the platform and create AI predictive models to underwrite risk through every transaction. We never touch the business; every transaction gets a model underwriting that is priced as part of the service.

We create the portfolio and then we look at the performance of that portfolio tied to that platform, and provide a performance guarantee. It’s a totally different holistic insurance cover.

KAENPRAKHAMROY: It is very exciting from the underwriting perspective to see the true risk for the first time; offer micro or short-term insurance products and see how they perform. You actually match the way they take risk, with your insurance products.

HOW DO LARGE COMPANIES SET THEIR PRIORITIES AROUND TECHNOLOGY?

MCGAREY: For us it’s about broadening distribution; we’re open to partnering with insurtechs, but technology is moving so quickly, you can be overwhelmed. Only a handful of insurtechs will be successful—what is being built now could be obsolete by the time it is ready.

HALL: It’s difficult to know how we qualify to judge what the best technology is. When much of this is black box technology how do you analyse one platform from another?

KAENPRAKHAMROY: This is probably the argument for working with startups, because to get just one project out may take you 12 months, and then another few years to implement. By the time you’ve finished that project, that technology is no longer relevant. It’s much easier to partner up with a startup that has the system capability to run faster than you.

LYNCHEHAUN: More traditional insurers are getting involved in that fledgling technology as well, it increases the competition, although it does not always necessarily increase the effectiveness of what we’re seeing come out of that world.

BEN ROSE: We can get a little caught up in how we keep up with the latest technology; it’s more about how we keep on adding value for clients. Brokers sit in the middle of demand and supply, and we try to match one to the other. Keeping the industry at pace with changing client models is a key focus.

We produce a global risk management survey where we interview 2,000 clients and ask them about the biggest risks they face. There’s now only about one or two risks left in the top 10 that are traditional risks.

We have to prepare clients for their existing, evolving and emerging risks, and technology is very useful here. Equally, we have to find ways of understanding clients’ businesses using new sources of data, and then using that enhanced data to develop new insurance products and attract underwriting capacity.

New data sources, such as Praedicat, enable us to look at casualty in a different way. That type of solution is going to be very powerful, and similarly, we’re working on a range of Intellectual property solutions that help clients to address their intangible asset exposures.

Aon Inpoint helps carriers to build propositions that bring meaningful value to clients; on the technology side that translates to understanding the carrier’s goals in the context of client needs, then helping them create effective technology strategies to support their mission and vision through data, analytics, consulting and engagement.

IS IT HARD FOR LARGER, WELL ESTABLISHED COMPANIES TO ADJUST AND ADAPT?

BEWLAY: Everything you’ve just said challenges the well-established insurance company to adapt and change. We’ve created NEAT, the New Economy, and Autonomy & Technology Underwriting Team—a group of global underwriters who focus on providing holistic coverage solutions for the risks associated with advancing autonomy and the advancement of technology and the shared economy. We recognise that business is changing which then changes our clients risk.

We take time to talk to the insured to identify and address their risks. We look for ways to tie the insurance contract to the available data that comes through technology and use this to influence the risk management services can we offer that will impact the ultimate loss ratio.

SPOTSWOOD: That’s hitting the nail on the head: the idea of using technology and data to advocate for the customer and drive innovation. In cyber, for example, there’s been a lot of discussion around technology and non-technology supply chain risk.

Cyber insurance has covered dependent business interruption for a while, but that creates potential aggregation challenges. We use the FICO platform to help us manage that and gain greater visibility over how exposed



a portfolio is to a given named vendor. Our clients can also use the FICO platform to score their own supply chain risk.

The use of technology is addressing a number of aspects therefore: providing innovation for the customer that meets a need while establishing a true partnership with the insurer helping insureds manage their risk, align cover, and allowing ourselves to assess aggregation potential.

LYNCHEHAUN: It gives you better client protection, because you're so fully integrated.

HALL: Underwriters are also problem solvers and risk experts. Being a risk expert is not a surprise, but being problem solvers means asking how can we do things differently using that technology? We have a drone platform, where you can buy cover in 90 seconds. It has modelled 200,000 drone flights to understand the causes of loss. They discovered it was actually down to where people were using them, not necessarily battery warnings, or wind speeds.

There was little logic to it in the traditional underwriting sense, but applying some problem-solving and doing it differently allows us to be more practical on underwriting, give quicker decisions. It is smarter and easier to use, and therefore more relevant to clients.

BEWLAY: That is the most transformational thing going on right now in underwriting; we are breaking away from how we made decisions historically. It was often in the dark, it was on the best knowledge that was passed down from underwriter to underwriter. Now we see the true drivers of liability in your portfolio, and you realise we've been underwriting to an assumption for a long time, and sometimes it had nothing to do with the ultimate results.

MCGAREY: As a platform grows and you get more data, that data are the key to adding value and making sure you're writing the right business at the right time. That's where insurers get real value: getting data and being able to analyse it.

DAVID FLANDRO: I applaud you all for the things you're doing. Many of the innovations you are discussing are very cool and exciting. But remember, we in the industry have been talking about the loss gap, big data, electronic trading, artificial intelligence, machine learning, et cetera, for years now. The big question is how and when all or some combination of these factors will create truly significant change.

What is different now as opposed to a few years ago is the potential of data. A big change to the way we do business is coming at some point driven by greater data ubiquity, combined with a new ability to organise and utilise the data with computing power.

I don't know if we yet have what we can really call 'artificial intelligence'; I would call it augmented intelligence. During our careers, AI and machine learning are going to give us data in the insurance sector comparable to what other capital markets have had for decades.

Lloyd's is very well positioned to play a key role in this process, potentially enabling the trading of risk in a way we've never been able to previously.

Once we have better data, we'll be able to do that with a range of new types of contracts. I think we should be looking for something quite transformative coming up in the next few years.

BEWLAY: I agree, but I think the biggest hurdle probably would be regulatory environment and how that data is shared. It's the biggest transformational thing you can do with an insurance company, because

you aren't in the dark any more. We're being more predictive, but are we? If you look at the finance industry how do we replicate that?

FLANDRO: Understood, but if you are referring to the financial industry's ability to predict the future, as a former equity analyst, let me just say you're not looking at a very high bar!

BEWLAY: True, but insurance is tied to the economy. We're connecting the world. For the first time we can take a look at business interruption in a way we've never done before. When you look at marine and cargo movement, you can look at what's in that risk like we've never done before.

To me it's the most exciting time.

FLANDRO: Yes, it is. Another point is how insurance analytics will change generally. There is a movie—*Double Indemnity*—from 1944, which takes place partly in an insurance brokerage, and one of the interesting things about it is that you look on the walls in their offices and they have the exact same loss triangles, pricing charts and rating tables, that we have now. They were using the same technology in the 1940s—and well before that—as we use today.

There's nothing wrong with this, and there have been innovations since then, but it is striking, glimpsing those old pricing charts, you can see the same cyclicalities then that we have today in long-tail actuarial pricing, for example. My point is that technology is today at a unique point where it is beginning to transform insurance analytics including actuarial science. What is coming will be more predictive, will have better results and will create more stability.

ROSE: We need a world where you can access all the data to be able to apply this.



BEWLAY: Why don't you share the group data with everybody. Cyber is probably the only area that I can envision a government coming in and saying, 'For the good of the world, there will be a database for cyber'. If it shuts down society then maybe there'll be sharing of the data.

FLANDRO: OK, but what if a consortium of carriers, or indeed Lloyd's, published more frequent, high-level pricing and claims data for different lines of business? Could, for example daily indices of specialty lines such as terror or cyber be created, enabling the trading of risk contracts?

ROSE: Lloyd's has quite a lot of constraints. For instance, some syndicates have a 60 percent share of a line of business. There could be manipulation of the derivatives off the back of that; leading to a pretty challenging situation.

FLANDRO: That's true, especially on long-tail stuff, but there are ways to mitigate this by using independent third parties. Why not start in lines that are harder to manipulate? Terror risk is pretty hard to manipulate.

TO WHAT EXTENT IS THERE HYPE AROUND WHAT TECHNOLOGY CAN DO FOR UNDERWRITERS VERSUS REALITY?

FLETCHER: For me one of the big points is that technology should be an enabler rather than the other way around. A lot of the problems I see in our customer base aren't really technological issues, technology can help, but you've got to have the will to explore new ideas and innovation in the business process to fix them.

FLANDRO: There is certainly a lot of hype out there, but there are also emerging technologies which could represent black

swan events that could really shift the industry. We could be on the cusp of a huge structural shift in the sector, driven by data and processing power.

KAENPRAKHAMROY: Only time can tell. I try to see things as what would happen in five years' time, as opposed to what is happening today.

FLETCHER: A lot of the technologies rely upon vast quantities of data. The question is how we might see that at a market or a global level because particularly AI requires very large volumes of data to drive it. The regulatory issue around data-sharing becomes quite a serious problem.

FLANDRO: There's obviously bad data-sharing which is anti-competitive and illegal. But then there is the provision of data for the betterment of the market in general, which can be undertaken through third parties. I think smart regulators would view this sort of thing quite differently.

BEWLAY: Some insurance companies use third party data providers to help underwrite and price their business. The issue that can be encountered is interpretation of consumer protection. When dealing with pricing driven by big data, regulators question how does that protect the consumer? Do we believe these new pricing models are the right models?"

ROSE: So much of the data we're using only provides an external view of the client's risk. Cyber is one example, but when we look at IoT sensors, and implementing IoT sensors on an industrial client side, the client doesn't necessarily want to reveal their operations; they don't really see a value in sharing that data unless it leads to a potential premium

discount or a large and provable impact to their loss ratios.

FLANDRO: In the US we're regulated, certainly in property insurance, as much by pricing as by capitalisation. Rate filings have to be made. You have to show you are insuring a sufficient spread of risks, and that spread of risks and the price are carefully scrutinised. But once you have met these requirements, you have multiple degrees of freedom in which to underwrite and operate, and this includes the use of data.

BEWLAY: It's different country by country. There's the legal theory of causation—someone did something that caused this result, and that's now challenged because that path of causation isn't clear. It isn't clear because we're using better technology.

Smart technology is designed to learn from itself, and other technology, over time leaving to question where liability lies; is it the designer of the technology which would be a professional loss or is it a products failure or an implementation failure. The "theory of causation" muddies the water of trying to figure out who was responsible. That's what the regulators are starting to worry about

FLANDRO: It is a separate discussion from using data in underwriting methodologies. What if making underwriting and expense data more public caused insurance costs to go down significantly? The regulators are going to love it, especially if better underwriting is complemented by technology-driven expense savings.

We've seen these disruptions in the technology industry, and then we've seen the technology industry transform other sectors. It can and will happen to us. When



“Rather than pricing the premium, the focus would be on the ability to communicate the underwriting rationale.”

Fei Ling Woon



the sunshine is let in, markets become more efficient and consumers benefit. That's true disruption.

MCGAREY: I don't think we've had a proper disruptor in the insurance market, but if we don't move forward on technology right now, someone like Google will march in and take over.

KAENPRAKHAMROY: We may be too late for that, Google is already here. When we were monitoring some of the keywords in insurance, for commercial insurance products, Google came up as one of the very top players for some of the keywords. I believe they have recently acquired a software house and a few insurtech startups; they have insurance-specific data under their disposal, and they are increasing their insurance footprint.

SPOTSWOOD: On this issue of customer perception of our use of big data and predictive analytics, some would ask: 'How are you going to use this data?'

'Will this be a stick to beat us within terms of terms and conditions?' While we gain access to the FICO score, we don't have access to the data behind the score, that is confidential to the insured.

We use the score to help inform our underwriting decisions, but the granular information underpinning it is confidential to the insured.

FLANDRO: That may be unique to FICO. With other providers you can pay to drill down a bit deeper into those technologies.

BEWLAY: You can, but clients don't always want to share their data because they question what benefit are they going to get from sharing? The traditional insurance

model is broken if all we want to do is price-up our business for the risks as we see them.

In the cyber world it's progressing a bit faster, this merger of insurance with risk solutions, with pre and post-events, cover that gives you more than an insurance product.

That's the challenge I'd put to our underwriting community, stop thinking about issuing paper, and start thinking about that partnership. How can you effect change within the client's organisation, that makes them more efficient, that makes their expense ratio go down, makes our loss ratio go down. Then they'll give us the data.

HALL: It's also about being more effective with our underwriting. Whether that's getting the right inquiries through to the right underwriting talent by technology, whether that's through managing our client interactions and CRM tools in a better way. That allows us to focus on some of the other things in terms of value-adds to those relationships.

IS IT SOMETIMES A CHALLENGE GETTING PEOPLE TO BUY IN TO THE BENEFITS OF TECHNOLOGY?

BEWLAY: Every time I have an underwriter who gets frightened of the newest shiniest tool, and they say, 'It's taking away my job', I say, 'Actually, what I'm hoping I'm doing is making you exponential, I'd like 10 of you, I'd you to be this superpower, and with the right tools you can produce 10 times more by underwriting in a different way'.

FLANDRO: When we hire people in analytics, where we hire actuaries, especially at entry-level, we want actuarial programmers; if we hire cat modellers, we want people who can use technology to

multiply their efficacy. We try to create cat modelling platforms that allow one person to do multiple placements in the time that it used to take to do one.

ROSE: On one hand, you have productivity tools that are going to make the underwriters much more efficient, and then on the other you have the tools which give the underwriters more information, enabling them to see much more detail on the client's risk. But market dynamics are what they are, and the price isn't necessarily going to change just because the risk profile is higher than you realised.

We found this around IoT from a cyber perspective—it's an attack vector that's going to be much bigger than traditional IT devices.

However, it's an interesting situation because from a capacity perspective additional insight on this exposure could cause the cyber market to shrink, not grow.

On the other hand, when clients realise they are much more at risk than they realised, that will make demand grow. So, potentially this data is going to have a really positive effect on demand, but a negative effect on supply.

BEWLAY: The problem is the unknown and that is preventing us putting more capacity in the market. I see that as the glass-half-full concept.

We work with Praedicat, which is a casualty liability aggregation risk modelling company. They study the prevalence of chemicals in your portfolio as aggregation scenarios. This allows us to use predictive models and probabilities to identify horizontal loss events, in a way we've never been able to do before.

For me as the global CUO I look at the horizontal effect and say, 'You know what?



making. It can be used to improve and build on underwriting talent.

ROSE: On something traditional like property cat, models are judged on how similar they are to each other. We don't seem to like variation. I'm curious to see whether tools like Oasis and Simplitium ModEx will enable us to draw upon academic communities to create a greater proliferation of models.

SPOTSWOOD: The strength comes from marrying the two. The use of technology in the last year has moved that story on.

LYNCHEHAUN: It's not just about assessing the risk, it's about creating products that are appropriate for that risk. That is where underwriting in the traditional sense does have some longevity, as long as we adapt to inform ourselves better.

WHAT ABOUT PEOPLE COMING INTO THE INDUSTRY?

FLANDRO: There are totally different types of people coming in now than even five years ago. Now, we want not just programming capability but the ability to use that to make decisions, to create frameworks, and processes that can make decisions. At graduate or entry level, not having some basic programming ability can be like not being able to use a word processor or a spreadsheet would have been a decade ago.

WOON: Even if you have data scientists working in your team, they'll be looking at problems from a different lens from the people who understand the business. You need somebody who is able to analyse that data, and what that means to you in a business context.

BEWLAY: The biggest change I see is the "data people" and actuaries are no longer segregated into a team that sits to the side waiting for the request to work with underwriting—we are all one team.

WOON: When you're building the predictive models, you need data scientists working hand-in-hand with underwriters.

MCGAREY: You need technologically-minded people, but this is a relationship industry and you still need to relate to your clients. They want technology to support that, but ultimately, they still want to have a conversation.

FLANDRO: You can be a geek and a jock at the same time, in fact, you should strive to be. What I mean is, it will just become second nature for those who are good at relationships also to have a much stronger technological grounding, and vice-versa.

LYNCHEHAUN: There might be another challenge retaining that talent, because employment trends for millennials are completely different from what we're used to in insurance. What they get out of their job satisfaction isn't necessarily monetary award.

MCGAREY: It comes down to flexibility, and that's certainly where we're moving to. It's about attracting the right talent going forward, and trusting your underwriters.

SPOTSWOOD: As an industry we've tended to think about risk through the prism of siloed product lines whereas clients don't think like that. Cyber is a great example of risk that has the potential to span virtually every product class. Clients want that more holistic advice.

BEWLAY: If I was the client, it seems absurd that I would need to speak to different underwriting teams for each risk and explain myself 10 times over. I would want to be viewed holistically before you price the business.

FLANDRO: We have been striving for many years to train individuals and to build teams that look at the client holistically and not force you to explain yourself 10 different times. We try to understand the global risk profile, the drivers of value, including the qualitative side. Only then can we presume to have any solutions.

HALL: I alluded to banks earlier, they have relationship managers for their clients—they're the catchers and then they'll bring in the line experts.

FLANDRO: You think the analytics and the advisory should drive or at least facilitate the placement. I enthusiastically agree.

MCGAREY: In the same space you are getting more insurers, underwriters, going direct to consumer and not via the broker. Ultimately if all the underwriters are sitting on this data, then actually what's the broker role?

ROSE: As an industry, we are gradually transitioning from a variety-based model, focused on products, to a needs-based model, focused on the client. Recently though, we've seen the emergence of technology-led ecosystems, which demands that we consider access-based models too: in other words, re/insurance propositions built to form the foundations of new ecosystems. That's our next challenge.

KAENPRAKHAMROY: We work with a lot of business associations as well as professional associations and any other marketplaces, we create or make ourselves part of that ecosystem to create products that are more suitable for that group of people. Our technology enables that, which gives us the real competitive advantage.

That's how we can add value to insurance, because if we were to operate in a traditional way, we would never make money. This process hopefully could be automated and that's where we want to be. ■



Exact Max 

VISUALISE BILLIONS OF LOCATIONS IN REAL-TIME

Exact Max is AdvantageGo's, powerful new reinsurance exposure management solution, enabling you to...

- ▶ Quickly and accurately visualise your entire treaty portfolio of billions of locations in real-time
- ▶ Proactively identify & manage accumulations of modeled and non-modeled risk, globally
- ▶ Centralise and evaluate quality of data across multiple geographies and businesses
- ▶ Respond to catastrophic events in real time
- ▶ Streamline your management of exposures across the organisation
- ▶ Gain greater clarity with a revolutionary graphics engine delivering high volume location visualisations

▶ **TO REVOLUTIONISE THE WAY YOUR BUSINESS MANAGES RISK, VISIT WWW.ADVANTAGEGO.COM/EXACTMAX TODAY.**

Revolutionising
Insurance Software

Advantage ™