



# WELCOME



**Hello, dear readers!  
Welcome to the tenth  
issue of Insur.Tech.Talk!**

Who's ready to make some waves?

This issue was put together at the end of May 2023, the beginning of hurricane season for many around the world. With global warming on the rise and the climate crisis a firm part of the global insurance narrative, natural catastrophes represent a profound opportunity for innovation. There is a light in the metaphorical storm!

For Property and Casualty (P&C) insurers, catastrophes are defined by the infrequent events that cause severe loss, injury and property damage to a large population. In light of this, I have assembled a panel of experts who will provide their insight on the technologies and applications that our industry has developed in order to predict and mitigate risk, revolutionising the claims process for all involved.

Until next time, happy reading!

*Megan*

**Megan Kuczynski,**  
President,  
Insurtech Insights



**Insurtech  
Insights**



# CLARA Analytics

CLARA Analytics is not just a claims intelligence platform for risk professionals. It's also an AI decision support assistant for adjusters - used at carriers, MGAs/MGUs, reinsurers and self-insured organisations for loss cost and expense savings.

So, how is AI improving the claims process? We sat down with Heather H. Wilson, CEO of CLARA Analytics, to find out.



**Heather H. Wilson,**  
Chief Executive Officer,  
CLARA Analytics

**Q** Heather, so great to connect! Congratulations on being named in the top 100 global insurtechs of 2022! You have certainly accomplished a lot in a short amount of time.

**I saw you were recently on CoffeeAndNoCode with Gary Hoberman. It was a great episode! Can you expand on what you mean by "we compete against the Ghost of Build"?"**

**A** Nowadays, organisations are realising that to be agile and accelerated, they need to think of parallel paths in terms of build and buy. There is room for both. We are finding that organisations want to partner with CLARA because we are truly 'plug-n-play' with our API architecture, allowing our clients to get started with capabilities that otherwise take years to build.

Sometimes, the "Ghost of Build" is still roaming the hallways. However, I have found that mentality has been changing over the last two years because advancements are happening so quickly that organisations need an accelerated path. We are a low-lift technology, providing claims organisations with a gateway to modern insurance. Our onboarding process takes 8-12 weeks to get clients moving forward with our AI Platform.

**Q** Talk to me about CLARA Analytics' focus on workers' comp. How does the technology triage the most complex of claims?

**A** CLARA Analytics is the only casualty AI platform in the marketplace, covering workers' comp, auto liability, and general liability. Our models are triaging the most complex of claims throughout the course of its full lifecycle, creating a decision support system for the adjuster or claims handler.

The adjuster is provided with a 'second set of eyes' - or a 'GPS' as we like to say - that will monitor and provide a heads-up on predictive alerts. This prompts our users to take action and details why that action is needed, helping the claim to stay on the optimal path. We are shifting the paradigm for claims adjusters to be drawn to their claims files with 'trusted prompting' and explainable, prescriptive, next best actions.

**Q** What are the biggest challenges facing P&C carriers in the midst of growing concerns around global warming and the climate crises as a whole? How does the CLARA Analytics product suite provide a solution in light of this?

**A** At CLARA, we focus on the bodily injury cases our clients face, whether this is in a workers' comp, auto or general liability setting. In any type of casualty, our AI system is used to provide predictive alerts and trusted prompting, which helps our clients get the best outcomes possible for these severe cases. We also have a large global data set that provides benchmarking for our clients as they deal with exposure and understanding occurring patterns.

**Q** You just announced a new AI platform for general liability claims. What role does augmented intelligence play for general liability insurance?

**A** Yes! Beyond workers' compensation and auto liability, we recently announced the launch of general liability, which makes us the only AI platform for casualty claims. We are really excited to bring this to the insurance marketplace, because we know the difficulty of managing this book of complex claims.

We know that our Triage and Litigation products will help claims officers and adjusters to intervene when our models are detecting the potential of litigation, or they will help with settlement of those cases. We have already proven ourselves in the workers' comp and auto liability space, so to help our current (and future) clients in this highly litigious environment is an opportunity to provide our demonstrated expertise.

**Q** Heather, you are so inspiring and serve as a role model for many women in insurance innovation. You've been the Chief Data Officer for Citi, the Global Head of Innovation at Kaiser Permanente, a board member at Equifax, and now CEO at CLARA Analytics.

**What advice do you have for other women when it comes to advancing their careers? What are some of the obstacles you have had to overcome to get to the C-suite?**

**A** I have been a lifelong learner and listener. Both of these skills have been foundational for me to be confident and a risk-taker as a leader. To continue growing as a leader means putting oneself in uncomfortable or new situations sometimes. It's important to work through the fear and understand that mental strength is needed when you want to embrace that growth.

Also, having a rewarding career equates to the 'grit and grind' of a work ethic — it's just what it takes! Lastly, this may sound very simple, but relationships matter. I have found myself working with amazing people again who I met or initially knew years ago. Building and maintaining strong relations is imperative to success.

*Heather H. Wilson, Chief Executive Officer of CLARA Analytics, has more than a decade of executive experience in data, analytics and artificial intelligence, including Global Head of Innovation and Advanced Technology at Kaiser Permanente and Chief Data Officer of AIG. She currently sits on Equifax's board of directors. While at AIG, she was named the Insurance Woman of the Year by the Insurance Technology Association for her data innovation work. Wilson has been a steady supporter of diversity. She launched the Kaiser Permanente Women in Technology group, focused on mentorship and retention for women in math, technology and science, and at AIG, she launched Global Women in Technology and served as Executive Sponsor of Girls Who Code.*



# Climate Risk and Resilience with Stephen Weinstein

In this very special edition of Modern Insurance Magazine, Megan Kuczynski, President of Insurtech Insights USA, sat with Stephen Weinstein, Former Chair of the Bermuda Business Development Agency, to discuss mitigating climate risk, emerging technologies, and the importance of ocean science.

**Q** Hi Steve, great to catch up!

I was intrigued by one of your recent LinkedIn posts regarding the cost of global warming to policyholders in areas hit the hardest by catastrophic surge events and risk. Where do you see this direction heading in the next 3-5 years?

**A** From the highest level, the acceleration of climate-driven risk is driving the most significant set of challenges across the industry. At the same time, fostering mitigation, adaptation and transition is giving rise to the most significant - and exciting - set of business and investment opportunities. I think we have to be clear eyed and vigorous, in terms of mitigating these risks but also in terms of allocating new capital into growth opportunities.

It's also important to recognise that not all climate risks are created equal. For example, I'm extremely confident in the industry's ability to manage risks of hurricanes, particularly in the US southeast. Florida hurricanes are, I believe, the most rigorously understood hazard in the world, and data available to the industry can be accurate, validated and actionable. Our recent challenges in Florida have instead been driven by fraud, not by the very real but well-managed risks of hurricanes.

In many developing markets, I believe the industry has developed very useful tools in terms of understanding the meteorology and physical impact of extreme weather events - including the near and medium impacts of climate change. But we lack the kind of validated and actionable data in a number of regions with respect to property and other insured value available. This is an area where I think insurtech innovations can help bridge the gap. There's a lot of exciting work going on - some in public, some in stealth mode - with sensors, imagery, data mining, AI, and other cutting-edge innovations, all of which marry up effectively with tested risk management tools in the context of well-modelled hazards.

We also have to recognise that there are some risks where our understanding of the peril may not be as robust as it needs to be. To me, the most prominent example of this is California wildfire. Clearly, the models have not been performing as well as they should be in order to allocate capital with confidence. Some of this relates to changes in the underlying risk. Out of the 15 largest recorded fires in California history, every single one has occurred at some stage in the last two decades. Six of the seven largest have occurred since 2020 alone.

While traditional data is robust in California, we may not have been collecting the right data. Insured properties can be ignited not just by smoking in bed, kitchen fires, wiring issues

and the like - all of which is reflected in traditional submission and claims files - but by factors like vegetation on the property.

In my view, these are issues that are too large not to tackle, and I believe that in 3 to 5 years we'll see some exciting progress across the board in the private sector. The harder nut to crack may be needed in public policy reforms, but I choose to be cautiously optimistic on that front as well. When it comes to climate, we have no time to waste. Everything that emerges in the coming years is likely to be something we should have been doing already.

**Q** How do you see climate-focused solutions being integrated into traditional P&C coverage?

**A** In the three decades since Hurricane Andrew destabilised much of the P&C market, the industry as a whole has done a solid job enhancing its ability to manage climate driven risks in terms of coverage. Andrew drove a big paradigm shift in terms of severity assumptions, and the storms of the Katrina-Rita-Wilma era certainly changed our understanding of frequency risk. While 9/11 was not a climate risk, it did lead to advancements in managing risk aggregation, which have great utility in terms of climate driven perils. Across that time, stochastic risk modelling and big data utilisation evolved from outlier ideas to near-universal application. At this point, if a P&C carrier doesn't think of itself as a climate focused company, it's on its way to being a legacy company.

However, this outlook speaks to traditional P&C coverage. I think the real challenge - and the fun - lies ahead in innovation and in expanding the solutions we can offer to help mitigate climate risk. Some of this will come from closing the coverage gap in respect of the climate driven perils that we understand well already. I think of US Flood in that context, for example. In regions where we already underwrite commercial flood, there's no reason not to imagine a more robust residential flood market. The US flood gap has been an outgrowth of public policy distortions that underwritten acumen and data sets are already positioned to address.

I think the underlying megatrends of climate adaptation and transition support an incredible opportunity for insurance innovation. For example, a Bermuda company recently launched an innovative product in respect of batteries that combines some features of indemnity and warranty protection. I'm aware of some efforts to provide solutions to support manufacturers, installers and owners of residential solar. We see continuing innovation to mitigate risk linked to extreme heat, cold, precipitation and other climate perils. I'm sure there are fascinating ideas in stealth mode or beyond my own ability to imagine. It's always a good time for insurance

innovation, but given the scale of the climate crisis, there's never been a better time than now.

**Q** I'd love for you to expand on Bermuda's current and future Climate Tech initiatives! I'm especially keen to hear more about the Bermuda Institute of Ocean Science.

**A** I'm really excited by Bermuda's vision and commitment to become a climate finance capital, building on its decades of leadership in climate driven reinsurance and ILS. Catastrophe driven reinsurance is written worldwide, but Bermuda emerged as its global capital in the decades following Hurricane Andrew. Now, I see Bermuda expanding into the most adjacent vertical - climate driven finance.

Bermuda as a platform offers founders, funders and management teams so much in the way of supporting and accelerating strategies. In terms of human capital, on a 'pound for pound' basis, Bermuda has the most significant critical mass of climate fluent experts in the world. This ranges from C Suite reinsurance veterans, to risk managers, accountants and compliance managers who understand how climate risk and revenue impacts their functions. Bermuda's globally recognised, highly sophisticated regulator is a critical advantage - including the fact that there's only one, the Bermuda Monetary Authority. Innovation in climate finance can sometimes blur traditional product distinctions. Some of the ideas I hear about frequently seem to mix attributes of, say, insurance, banking, consumer credit, derivatives and potentially more. In the US, there's a regulator for each of those domains - not to mention the 50 states which all have separate insurance regimes. In Bermuda, the BMA is a unified, consolidated regulator with depth and expertise when it comes to climate. In climate matters, where speed to market is important, having a single, sophisticated regulator to work with - rather than dozens - can be a game changer.

I really believe Bermuda will become the Silicon Valley of Climate Finance. It shares all of the key architecture of innovation hubs when it comes to climate risk, and the Bermuda Institute of Ocean Sciences is a key part of that ecosystem. There's no better place to study the world's oceans than Bermuda, given its location in the deep ocean. For more than a century, Bermuda Institute of Ocean Science (BIOS) has been a global leader in ocean science and applied marine reinsurance. Critically, it's home to some of the longest-running sets of ocean observations available anywhere in the world, the Bermuda Atlantic Time Series. Resident and visiting scientists are at the leading edge of ocean research. At the same time, BIOS offers a robust suite of educational programs, ranging from PHD program candidates to young local Bermuda students, all of which is magnified by their recent merger into Arizona State University.

Looking forward, BIOS and ASU may be uniquely positioned to help explore and expand our understanding of perils like extreme heat, ocean warming, wildfires and sea level rise. As the capabilities of BIOS and our partners expand, so too does our relevance to market participants.

**Q** Tell me about some of the most blockbuster new climate technologies you're seeing in the market at the moment!

**A** If I could wave a wand, I'd want to see future innovations on the market already. Still, that doesn't mean we shouldn't celebrate what we already have! To name but a few in the Bermuda ecosystem specifically, Aanika Biosciences is a Bermuda firm with really impressive microbial technology, used to track and trace organic material in supply chains. With their own reinsurance entity and other partnerships, this improved ability to distinguish otherwise identical commodities from each other will increase transparency throughout the claims process beyond what's possible in traditional processes and digital technologies.

My friends at Blockchain Triangle are pioneering tech to aggregate, homogenise, and analyse data across individual sources, including IOT sensors to link data

directly with assets for sustainability tracking, risk transfer, reporting, benchmarking, and analysis.

Our Kettle Enhances is also bringing solutions to challenging risks like wildfire by using, in lieu of incomplete or inaccurate historical data, swarm neural networks to produce precision priced products. This creates specific returns to match with markets with corresponding appetite.

**Q** What do insurers need to do to identify and develop climate-focused solutions, ensuring net-zero transition and risk mitigation?

**A** This is a pretty big topic, and I hope it becomes even bigger in the future.

Firstly, I think the industry needs to be increasingly willing to embrace collaboration and open-source solutions. We don't have decades to tackle the climate crisis, and the scale of the risk and contrasting opportunity is too vast for any one player. We need an all-hands-on-deck approach, with speed to market and speed to solutions. There's room for everyone; and every new solution will create a place for the next one.

Secondly, I would encourage all of us to lean into the transition. Follow the money! Infrastructure at the scale global players have now committed to requires insurance. We need new coverage ideas for D&O and for professional lines, too. I think the opportunity is limited only by our imagination and ability to demonstrate an understanding of risk.

Finally, I would encourage players in the market to think about investing in relevant applied research and engagement. In large part, we have sprinklers and airbags because insurers played a role in risk mitigation and research funding. Steam boilers became universal in times gone by, safer because of the insurance mechanism. The role of insurance in effecting change should not be underestimated.

**Stephen Weinstein,**  
Former Chair of the Bermuda Business Development Agency

*Stephen is a financial services and insurance executive with an extensive background in innovation, strategy, governance, mitigation and resilience, and transactions. He currently serves as the Chair of Itasca Re, a recently launched Bermuda specialty reinsurer, Chair of the Bermuda Institute of Ocean Sciences (BIOS), an independent U.S. non-profit scientific research and educational organisation, and Itasca Re, a Bermuda domiciled specialty reinsurer.*





# Maptycs

Founded in 2016, Maptycs provides a geospatial risk visualisation platform for property insurers, reinsurers, brokers and risk managers. We had the pleasure of sitting down with Jacqueline Legrand, CEO and Co-Founder, to discuss how Maptycs' platform can support risk selection, pricing, and event response.



**Q** Jacqui, great to see you!

**You have a fascinating background, moving from IBM to a global insurance leader, and now to Maptycs. What problem did you identify in the market, and how can Maptycs solve this for the insurance industry?**

**A** With the rise of natural disasters and the explosion of high-quality location-based data, insurers need to consolidate high volumes of data in multiple formats to compute pricing and losses with accuracy. This is exactly our value proposition. We combine the data of our clients' property portfolios with 'a la carte' external data, like risk maps and real-time events from governmental agencies or from specialised third-party providers. We do this for any type of perils, like flood, earthquake, wildfires, and more.

**Q** How do (re) insurers, risk managers and brokers use Maptycs in different ways?

**A** Insurers primarily use Maptycs for property underwriting and reinsurance placements. Risk Managers use Maptycs to improve their property risk management strategy in terms of risk prevention and risk transfer. Brokers are increasingly working with Maptycs to improve their clients servicing using modern technology, and subsequently have a competitive advantage for client acquisition and retention.

**Q** I would love to hear your thoughts about the global climate crisis, and how Maptycs is addressing this across your product suite!

**A** We wanted to offer our users the ability to run any type of climate change scenario to assess the future impact on their portfolios and investments. To do this, we designed a model that used all IPCC pathways data - ranging from temperatures, precipitation, wind, population density and sea level rise between now and 2100. It was an ambitious undertaking, but our clients are very happy with the result.

**Q** What specific climate catastrophes and geographies does Maptycs cover?

**A** Our geospatial analytics features work around the world. In terms of perils, we can cover any perils and geographies covered by our data providers. At present, we have integrated flood, wildfire, earthquake, wind, drought, tsunami, wind datasets and maps. We also keep enriching our data offering as more datasets become available or requested by our clients.

**Q** How can the Maptycs platform be used for event response?

**A** In the platform, we integrate real-time data on tropical storms, wildfires and earthquakes, and combine this with a powerful notifications system. It helps insurers optimise their claims management resources, and also helps to maintain adequate reserves for claims payouts. It also helps risk managers to proactively mitigate losses and manage business continuity during natural disasters.

**Q** You are a very inspiring leader and entrepreneur. What advice do you have for other female founders?

**A** As a leader, I have had the opportunity to work and live in various countries with people from many cultural and professional backgrounds. This taught me to learn and adjust fast, and to be fearless, humble and confident.

As an entrepreneur, I have learned to be resourceful and to listen to our clients to continuously improve our solution. As a female founder, I have accepted that I cannot have it all, but I can make it all work. Make sure you have a robust organisation at home; embrace good and forget perfection; stay focused and avoid distractions. Remember, you need to make big things happen fast; leverage your network. They will provide reliable feedback and open doors to develop your business.

**Jacqui LeGrand,**  
CEO, Maptycs

*Jacqueline Legrand is CEO & Co-Founder at MAPTYCS, an Insurtech company that uses advanced geospatial analytics technology to help insurance professionals better understand property risk exposure and manage events response in real-time.*

*She has 25 years of experience in insurance and reinsurance markets across Europe and the Americas. Prior to joining MAPTYCS, Legrand was COO & Board Member at MDS, a Global Insurance Broker with operations in Iberia, Brazil, and Africa. She was also CEO of Brokerslink, one of the largest global brokers' network and CEO of HighDome PCC, a captive insurance company. Earlier in her career, she oversaw the international business at Crystal & Company in New York. Before stepping into the insurance industry, she used to work at IBM, managing multinational client accounts in the automotive industry.*

*Legrand has been recognized as an Insurance Executive to Watch and a Top Insurtech Leader. She received a Master of Business Administration degree from ESLSCA, Paris. She attended a Graduate Marketing Management program at Columbia University, a Finance program at Harvard Business School and earned the ARM (associate in risk management) designation.*

# Verisk

**Q** Hi Bill, great to sit down with you at the start of hurricane season to hear some of your insights!

**This issue of Insur.Tech.Talk focuses on climate change, climate tech, mitigating risk, and improving the claims process. I understand Verisk was launched five years before Hurricane Andrew hit Florida. Talk about timing! Tell me more about Verisk's risk analysis approach to catastrophic events, especially through computer simulation models. How has your technology improved prediction?**

**A** You're so right - timing was everything with Hurricane Andrew. There was a great deal of scepticism about catastrophe modelling before Andrew came along. At that point in time, people had a very limited view of how much damage a catastrophe like that could cause in the insurance industry. Despite what models like ours were telling them, when that occurred in 1992 people acknowledged a need for different technology and different approaches to tackle it. That's really where the accelerated use catastrophe models came into being.

It's a computer simulation model to provide a more complete picture of the potential damage that hurricanes, earthquakes, floods and severe thunderstorms can do. Historical claims data that insurers have can be robust, but it's not sufficient to give a perspective of more infrequent events like natural catastrophes.

The general premise of trying to simulate what could happen next year - thousands of times over to give a full distribution of potential losses - remains fundamental methodology at Verisk. As you alluded, the technology and the sophistication of the models has improved immensely over this time period. We don't think about predictions. We don't necessarily predict what will happen this year. What we're trying to do is give a sense of the possibilities. These models have been proven in terms of resolution, and some of that comes from the insurance industry itself. They've collected much higher resolution exposure data in many parts of the world. The models now can better differentiate risk across hundreds of different building types and geographies, not to mention the sophistication and resolution at which we're calculating damage, which has gone up dramatically over time.

**Q** What kind of impact has Verisk's technology had on both the insurer and the policy holder as it relates to the claims process?

**A** The industry has experienced years of very high catastrophe losses. Compared to the years before Hurricane Andrew however, the industry is in a much better position to handle large-scale catastrophe losses. It also has the proper amount of capital on hand so claims from these events can be paid out.

What do I mean by that? Well, let's go back to Hurricane Andrew. When that event happened, at least twelve insurance companies went insolvent, causing a great deal of disruption in the market. Fast forward to 2010, 2011 or 2017, for example - years of very high recorded catastrophe losses - and only one or two companies went out of business in response.

I think as a policyholder, you should feel much more comfortable in the knowledge that the insurance industry is a more secure place now with regards to capital on hand. To some degree, some people would say that it has helped to smooth out insurance cycles. Even though we're in a hard market right now, the amplitude of those cycles is a bit less. This is because catastrophe models have given people more of a baseline to understand what the risk is.

**Q** Great! So, what is Verisk doing to improve the protection gap?

**A** First of all, I'll define the protection gap in order to put it into context. Obviously, we have natural disasters occurring here in the US and around the world, but not all of it is insured. That's an issue in the United States, where we would say maybe half of natural disaster losses are

insured. Most people don't buy earthquake insurance. Most people don't have flood insurance as you move around the world. It's even more exacerbated in places like Asia, where maybe 10% of losses are insured. So that's what we're talking about when we talk about a protection gap. It's a mismatch between the cost of the actual economic loss, and what people can recover from insurance.

We would say that we have models covering insured losses, over 90% of which occurs in the world on an insured basis. So, the technology is there to help companies confidently underwrite that risk, and we continue to update those models across the insurance market. We also work with different governmental and non-governmental agencies who look to issue catastrophe bonds in the event of a disaster, subsequently securing emergency funds. We've done that in regions with low insurance penetration, like a number of Pacific Islands and Latin America.

Outside of our core business of modelling, we also support a non-profit organisation called Geohazard International, that helps reduce suffering and fatalities in the event of natural disasters. Part of our efforts help to shine a light on the issue and raise awareness, using our technology to improve outcomes. You absolutely want to minimise fatalities with these events. Tackle that first, and then worry about physical damage afterwards.

**Q** Amazing! And what do you see as some of the most novel new technologies being born out of the climate crisis?

**A** I'll make a bit of a diversion as I think this is an important topic. In the insurance industry, there's been a lot of concern over the last five years in relation to the level of insured losses going up significantly. There's been a lot of blame on climate change, but we've reiterated that climate change is merely a factor.

Let's take a step back. First and foremost, more structures are being built in areas of high hazard. Also, the value of those structures continues to rise; we're in an environment of super high inflation. An event that might have caused \$10 billion in loss ten years ago would see double that loss now. The technology has to work for the insurance industry in order to make sure they're using high quality, accurate exposure information. If you don't get the exposure data right, you can chase climate change all you want, but you will continually run behind.

Getting proper data is a much more solvable, intractable problem, and it's fundamental to running the business. We stress this first and foremost around issues of climate. Our focus has been on trying to develop and architect a set of catastrophe models so we can go back to clients and say, look, this data reflects the climate change that's happening today. We're seeing good improvements in climate models, but there's still a level of uncertainty in long term projections.

It is becoming easier though, because of better computing power and improvements in these models when it comes to looking at correlations across different regions, and so on. What a lot of insurers and global companies will worry about is the correlation between hurricanes and wildfires in the US, or how risk in Europe might be correlated with that in Asia. We're actively developing solutions where everyone can have better insights into those types of questions, which could help manage and allocate capital better, and achieve better business outcomes.

**Bill Churney,**

President, Extreme Event Solutions, Verisk

*Bill Churney is President of Verisk's Extreme Events Solutions team. He's responsible for setting the team's global strategy and overseeing its worldwide operations. Bill has extensive experience working with companies to better understand how they manage risk and identify ways to use analytics to improve catastrophe risk management.*

