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IUMI TODAY

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Navigating the future: IUMI's Denèfle unveils his vision for marine insurance in 2030

Frédéric Denèfle

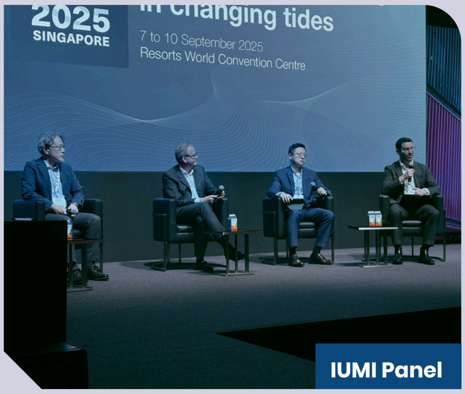
THE WORLD OF MARINE INSURANCE stands at a critical juncture: with global shipping undergoing rapid transformation, insurers are being forced to adapt to new regulatory regimes, changing geopolitical realities, and disruptive technologies.

That's the view of Frédéric Denèfle, president of the International Union of Marine Insurance (IUMI), who spoke to *IUMI Today* about the association's priorities for 2030 and beyond. His remarks, made as IUMI's 2025 annual conference kicks off, reveal an agenda that blends member support with a forward-looking approach to risk and innovation.

According to Denèfle, IUMI's long-term strategy is built around strengthening its service to members. This commitment spans technical information, guidelines, and the interpretation of regulatory shifts that affect the shipping industry.

"IUMI is building up a plan in order to improve its support to its members, generally speaking, be it guidelines, technical 4 →

MEETING THE ONCOMING CHALLENGES in the straits of change



IUMI Panel

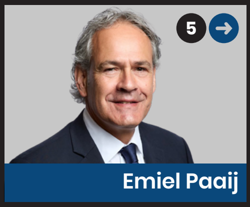
NAVIGATING A WORLD BEING RESHAPED by geopolitics, decarbonisation, tariffs, digitisation, and the constant need for maritime safety is increasingly challenging, delegates at the 2025 International Union of Marine Insurance (IUMI) conference in Singapore have heard.

The second day of the conference started with a panel moderated by Rama Chandran, member of the Ocean Hull Committee, that featured perspectives from across the sector from Shohei Inatsu, Kawasaki Heavy Industries, a pioneer in hydrogen shipping technology; Patrick Kirkman, general manager, BW Maritime; Ge Qi, head of reinsurance, COSCO Shipping Captive; and Richard Neylon, partner at law firm HFW.

Over the course of an hour, the discussion ranged widely—from the technicalities of hydrogen carriers, sanctions compliance, tariffs on shipbuilding, and re-routing complications. What emerged was a clear sense that the marine insurance and shipping sectors are under strain, but also that they are adapting, innovating and—sometimes—benefiting from disruption.

Opening the session, Chandran 3 →

INSIGHTS AND ANALYSIS FROM MORE LEADERS INSIDE



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PANEL

Meeting the sector's challenges

reminded the audience of Singapore's unique vantage point, pointing out that: "It is estimated that 2,000 vessels transit through the Straits of Singapore every day. That means every 100 seconds, one vessel passes, either eastbound, westbound, or into port."

Yet this vital artery faces risks. Piracy in the region, although mostly petty theft, has risen by 50 percent in the first half of 2025 compared with the previous year. For Chandran, a former seafarer, the issue remains deeply personal: "Safety of the crew is our lifeline. We need to do more for seafarers as a fraternity, as a global market."

New fuels: promise and peril

Inatsu drew on his experience leading Kawasaki's delivery of the world's first liquefied hydrogen carrier in 2021, as the shipping industry asks which fuel is better.

He began with safety, saying that hydrogen must be handled at -253°C, so tanks and pipes require double-walled structures to prevent liquid air forming. Ammonia, although easier to store at -33°C, poses severe toxicity risks: even small leaks can cause lasting damage to human health, he said.

Regulation, he noted, is still catching up. Hydrogen has no long-standing international code, although provisional guidelines were adopted by the International Maritime Organization in 2016. Ammonia is covered under the IGC Code, but scaling up for the growing demand will require urgent verification of safety standards. The challenge lies not only in handling but in fuel efficiency.

"Neither hydrogen nor ammonia emit greenhouse gases when used," he said. "However, their energy density is far lower than heavy fuel oil. Ships require much larger tanks."

Kawasaki plans to launch a 40,000m³ hydrogen carrier by 2030, a step towards building a commercial-scale supply chain. Inatsu's conclusion was pragmatic: hydrogen and ammonia are promising, but they require global cooperation, regulatory clarity, and technological confidence.

Insurance in uncertain seas

Chandran asked the shipowners how war and instability have changed the insurance landscape.

Kirkman replied: "The short answer is it hasn't, because we already had war cover and buy-backs. The real impact is on operations, not insurance. Shipping is simple: we go from A to B. What complicates things is the geopolitical environment."

KEY POINTS:

- Hydrogen vs ammonia debate unresolved
- Tariffs are complicating matters
- Shipping is re-routing away from the Red Sea

> "The business can be declined, but compliance can never be compromised."
>
> Ge Qi

Crew welfare, he stressed, cannot be forgotten—even if freight rates rise when ships re-route around the Cape of Good Hope instead of passing the Red Sea.

Qi gave a more detailed buyer's perspective. He pointed out that with war in Ukraine and Gaza, premiums for "war additional premium" (war AP) areas have soared.

Sanctions, he warned, remain a nightmare. "Compliance is not negotiable. The business can be declined, but compliance can never be compromised. Once you are on a sanctions list, even loyal customers will avoid your brand. It took us seven months to be delisted a decade ago," he recalled.

The five powers

Turning to legal interpretations, Chandran asked Neylon about the "five powers" exclusion clause—a common feature in war policies that excludes cover if conflict erupts between any two of the US, Russia, China, France, and the UK.

Neylon explained: "The real issue is what constitutes a war. Cyber experts will say we are at war every day. But generally, unless there is a conventional, declared war, the clause has little application. Cancellation clauses are far more relevant."

He reflected on recent court decisions, such as the *Win Win* detention case in Indonesia, when insurers were forced to pay $37.5 million after a vessel was held for over a year. Courts sided with the owner, ruling exclusions insufficiently clear. Neylon suggested better event management could have avoided escalation.

In *Palmali Shipping SA v Litasco* a UK court refused to enforce a poorly drafted contract, treating it as lacking legal certainty.

"English law doesn't protect you from a bad bargain, but if the contract is so uncertain, it may not be upheld at all," Neylon explained.

Uncertainty from Washington

On tariffs, the panel highlighted how US policy ripples through global shipbuilding and trade.

"We've delayed building decisions because prices are high," Kirkman said. "To exclude Chinese yards would be imprudent. We're waiting to see if Trump sticks to his tariffs or backtracks."

Citing Clarkson Research, Qi noted newbuild orders fell 58 percent in H1 2025, with China's market share dropping from 75 to 56 percent. South Korea, meanwhile, has risen sharply in liquefied natural gas orders.

Neylon pointed out that for charter parties, sudden tariffs create legal headaches. "When tariffs change the economics of a contract, the question becomes 'who pays?'. Clauses on taxes or *force majeure* often don't cover it. Owners and charterers are forced to renegotiate."

Operational realities

With Houthi attacks in the Red Sea continuing, rerouting around the Cape has become standard. Kirkman said that this rerouting has been relatively smooth, although longer voyages affect small liquefied petroleum gas carriers that can't make the economics work.

Qi said that COSCO has managed thanks to its diversified fleet and prior experience on South African routes and Neylon warned that a $50 million tanker laden with crude oil is not the same risk as a $50 million bulk carrier in ballast, as salvage costs and pollution risks must be factored in.

The panel closed with no illusions about the challenges ahead. From piracy in Singapore to sanctions in Russia, from tariffs in Washington to hydrogen tanks in Japan, the strains of change are everywhere. Yet the underlying message was one of resilience.

Shipping, Chandran reminded the audience, remains essential: "Marine insurance contributes only 2.89 percent of global premium, but it underpins global trade. We must attract talent, embrace innovation, and never forget the seafarers at the heart of it all."

STRATEGY

IUMI's president unveils his vision

←1 information, or explanation about the evolution of the regulation when it comes to shipping," he stated. Whether it relates to safety requirements or sanctions regimes, the association is investing heavily in ensuring that members have access to clear, practical insights.

Denèfle described this as both a strategic motto and a responsibility. "We want to make sure at the same time that the overall association is able to understand the evolution of shipping and the evolution of the way transport risks will be meeting the challenges ahead of us, so that members can include all this information and explanations into their underwriting processes and the risk assessment."

In short, IUMI's 2030 vision revolves around providing clarity in a landscape where risks are becoming more complex.

Understanding consequences

Geopolitical risk is an unavoidable part of marine insurance, and trade fragmentation only deepens the challenge. For Denèfle, the starting point is always the customer. Insurers must first ask: what impact do these developments have on shipowners and exporters?

"The first thing that marine insurers have to do when it comes to geopolitical risks and trade fragmentation is to understand the consequences on their customers' businesses," he said.

The analysis does not stop there. Insurers must also evaluate whether these geopolitical shifts create additional risk to their own portfolios. As Denèfle pointed out: "If you insure war, for example, you have to know if your customers are having business in those war areas, and make sure that you can have the right contractual approach toward that kind of activity."

His advice is distilled into three simple principles: understand the client; understand the consequences for that client; and assess the impact on the insurer's overall portfolio.

Decarbonisation and ESG

Few forces are reshaping shipping as quickly as environmental regulation. Decarbonisation and environmental, social and corporate governance issues (ESG) compliance, Denèfle argues, are not abstract trends but current realities that insurers must address head-on.

"Our role, which is in the centre of IUMI's activity, is to understand those new rules and trends as much as possible and be able to explain them to the various members of the association," he said.

KEY POINTS:

- Stronger IUMI support to 2030
- Insurers adapt to geopolitics
- Decarbonisation reshapes risk

> "The task has been to ensure that no major issue goes unexamined."

One of the most visible changes is the growing fleet of dual-fuel vessels. These ships raise important underwriting questions: do they introduce new technical risks? Are they more expensive to repair? What are the potential financial consequences of failures in unfamiliar machinery? Insurers must grapple with these questions in order to properly price and a ssess risk.

Denèfle points out that shipowners are already moving decisively. "Shipowners have considered and are going to apply those new regulations. The type of decision which is taken is to order dual-fuel vessels, or to order a new type of technology on board which enables them to reduce greenhouse gas emissions."

The scale of adoption is striking. More than 2,000 dual-fuel ships are now in operation, with around 80 percent relying on liquefied petroleum gas (LPG). But this is only the beginning. "The next steps will be about ammonia and electric vessels. Ultimately we will see the unmanned vessel coming in," Denèfle cautioned. While autonomous shipping is not yet a reality, insurers must already prepare for its regulatory and technical implications.

Leading through complexity

Reflecting on his time as president, Denèfle emphasises that the role has been defined less by milestones than by breadth of responsibility. He has now served two terms, and the key challenge has been to keep pace with the vast array of issues connected to marine insurance.

"What has defined those two first years is making sure that you follow all the subjects which can have some impact on the marine insurance industry," he recalled. From ESG to sanctions, from tariffs to trade wars, the task has been to ensure that no major issue goes unexamined.

Denèfle admits this was something of a revelation when he first took office: the discovery that the marine insurance sector is affected by a wide spectrum of global economic and political forces. His responsibility, therefore, has been to understand each one and to make sure IUMI could help its members navigate them.

Amid these challenges, one constant remains: the fundamental driver of marine insurance premiums is international trade.

"The driving factor behind premium growth is trade volumes and trade values. Volumes and values are the key pillars which influence the level of premium collected by insurers," Denèfle said.

When global trade expands, ship values rise, and vessels carry larger volumes of cargo. This creates higher exposures and, in turn, greater demand for insurance cover. Conversely, if trade contracts, insurers must expect premiums to decline accordingly. For Denèfle, monitoring trade flows is therefore essential for understanding the future of marine insurance.

A transformative decade

Taken together, Denèfle's reflections highlight both the challenges and opportunities facing marine insurance. IUMI's strategy for 2030 is not simply about reacting to crises, but about equipping members with foresight and clarity.

The industry must respond to immediate risks, such as conflicts and sanctions, while also preparing for the long-term implications of new fuels, technologies, and vessel designs. Decarbonisation, digitalisation, and automation are not distant trends; they are realities that insurers must factor into underwriting decisions today.

"IUMI is strongly investing in doing more for its members," Denèfle emphasised. This means offering not only information but also interpretation—ensuring underwriters can incorporate complex developments into their risk assessments and decision-making processes.

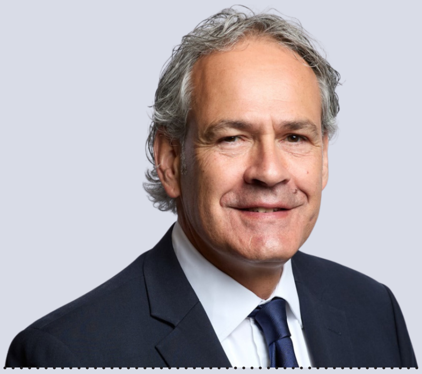
Denèfle's vision of the future is one in which marine insurers are better informed, better prepared, and more responsive to change. By focusing on member support, helping the industry navigate geopolitical risks, and offering guidance on decarbonisation and technology, IUMI is positioning itself as an indispensable partner to insurers.

As trade volumes, regulatory demands, and technological innovations reshape the industry, Denèfle's message is clear: only by understanding these forces can insurers adapt successfully. The decade ahead will be transformative, and IUMI intends to ensure its members are ready. ●

RISK MANAGEMENT

Pooling risk in turbulent seas

Emiel Paaij of Markel warns marine insurers to prepare for volatile trade routes as geopolitical conflict creates risk and new opportunity.



From the Red Sea to the Malacca Strait, the world's trade arteries are under pressure. Conflict, piracy, sanctions and shifting trade patterns are making risk management more complex than ever.

"The biggest risks are the conflicts that we see today," said Emiel Paaij, head of marine Europe at Markel. He pointed to the Black Sea, piracy off Somalia and looming flashpoints in Asia. Geopolitical volatility is disrupting global trade, yet for insurers it also opens unexpected doors.

"Uncertainty brings a lot of problems and a lot of insecurities, but it also brings opportunities," he said. From energy transition to defence investment, the shifts triggered by today's turmoil will reshape the marine and specialty insurance markets for years to come. Paaij noted that governments were pouring money into security and defence.

"Rheinmetall just opened a big factory in Germany," he said. "That's a big opportunity for many parties, but also for insurance companies that need to cover the transport of goods."

At the same time, energy insecurity has created new momentum. "Is it time for a transition?" Paaij wondered. "Investment has already been made, but the appetite has slowed. It will surely return, and bring in opportunities for the renewables, energy and marine markets."

The risks, however, are equally stark. "If two very large crude carriers collide in the Malacca Strait and there is pollution and wreck removal, at least 25 percent of world trade would be affected," he said.

"What if a terrorist organisation sees that as a very attractive opportunity?"

Where the next risks may emerge

Paaij warned that the next flashpoints may already be brewing; the China-Taiwan conflict being a prime example. He reflected on what the outcome could mean for shipping routes. "Can goods still be shipped from China to Europe or the US? That is a real concern.

"What about India and Pakistan, or India and China? And what happens when the Ukraine situation is resolved—will there be a future threat from Russia?"

For insurers, these uncertainties translate directly into changing risk profiles and shifting supply chains. Regulatory complexity adds another layer. Sanctions checks now require insurers to scrutinise every client, trade route and cargo detail.

"It creates a lot of extra paperwork, which basically means higher costs," he said. "Yet if we do this in the right way, we can be sure that everything is checked. The clients know their assets are secure, and the regulators know everything is compliant. That comfort is valuable."

KEY POINTS:

- Aggregation is reinsurers' biggest concern
- Pooling of risks remains essential
- Sanctions add cost but bring comfort

> "Balancing geopolitical risk is very much about pooling of risk."

> "The clients know their assets are secure, and the regulators know everything is compliant."

Reinsurers, meanwhile, are focused on aggregation. "The first signs you always see in case of conflicts are reinsurers knocking on the door and asking, please tell us what your book looks like," Paaij said.

"They worry a lot about aggregation. One client can come through different channels, and the same interests can end up in the same port at the same time."

Technology is helping, but progress is uneven. New tools allow insurers to map exposures by vessel and region but still, Paaij wants more.

"What I would like to see is chips inserted into parcels, combined with invoices, pallets, containers and ships, all linked through blockchain," he suggested.

"Then it should be possible to know the exact value of goods in a specific location at a specific time. We're not there yet, but it is a challenge for the next couple of years."

Ultimately, he argued, insurers must fall back on the oldest principle of all: pooling.

"Balancing geopolitical risk is very much about pooling of risk between clients and insurers, and then using modern technology to understand exposures," he stated. "That combination can give us a better balance of exposure in these volatile geopolitical times."

Opportunities abound in areas such as renewable energy, political risk and trade credit. Paaij also sees potential in parametric solutions: cover that pays out if ports are shut by war or unrest.

"Supply chains will change," he said. "How can we help our clients insure the changes that will happen there?"

For Paaij, the job's unpredictability is what makes it exciting. "I come into the office and, to some extent, I have no idea what will happen today or tomorrow," he said. That makes my job very interesting." ●

Emiel Paaij is head of marine Europe at Markel. He can be contacted at: emiel.paaij@markel.com

POLICY

IUMI maps out core ongoing priorities

KEY POINTS:
- Maritime safety a key priority
- Modern slavery risks policy updated
- Pollution is also on the radar

Maritime safety, environmental protection and crew remain central to the agenda of the International Union of Marine Insurance (IUMI), Neil Roberts, chair of IUMI's Policy Forum, reaffirmed at its annual conference in Singapore this week.

Speaking during the Policy Forum Workshop, Roberts outlined some of the most pressing challenges facing the maritime sector.

"Our Policy Forum work continues to focus on the International Maritime Organization (IMO) and initiatives aimed at improving safety at sea," Roberts explained. "Our members are actively engaged with the IMO Ship Systems and Equipment Sub-Committee, particularly around central issues such as fires on containerships, which are still trending up, and the carriage of electric vehicles (EVs)."

IUMI has issued an updated position paper providing risk mitigation advice for the safe ocean transport of EVs. Reflecting new research and findings, key updates included managing thermal runaway and potentially explosive gases; comparing fire intensity between EVs and internal combustion engine vehicles; addressing vulnerabilities in pure car and truck carrier (PCTC) designs; prioritising early detection and "fixed first" firefighting strategies for PCTCs; and reassessing the effectiveness of foam-based fire suppression systems.

> "IUMI believes that nurdles should be subject to the Dangerous Goods Code."

In August, IUMI published an information paper urging marine insurers to broaden their understanding of modern slavery risks within maritime and supply chains. Given that the maritime industry has been identified as high-risk, the paper calls on insurers to adopt a proactive stance wherever possible. While acknowledging that insurers are typically one step removed from direct operations, the paper stresses their crucial role in shaping responsible industry practices.

Addressing broader geopolitical challenges, Roberts commented: "It would be impossible not to mention the complications caused by sanctions, every western politician's tool of choice. The problem for insurers is twofold, first the need to comply, and second the difficulty of trading when reconciling two complete opposites. Sanctions are designed to inhibit trade whereas marine insurance is meant to facilitate it."

Roberts also turned to environmental risks, referencing the *X-Press Pearl* incident in 2021 and more recent cases such as those involving *Solong* and *Elsa 3*. These incidents have highlighted the devastating impact of nurdles—small plastic pellets—when spilt into the ocean, where they are nearly impossible to remove and often enter the food chain.

"With billions more in production and transported by sea, more controls are needed. IUMI believes that nurdles should be subject to the Dangerous Goods Code and continues to push for change in this regard," he said. ●

TECHNOLOGY

AI creates opportunities for marine insurers but challenges remain

Artificial intelligence (AI) is set to transform the marine insurance sector, presenting both significant opportunities and pressing challenges. This was the key message delivered today at the International Union of Marine Insurance (IUMI) annual conference in Singapore.

Speaking at the Innovation & Technology Workshop, Rahul Khanna, chair of IUMI's Data & Digitalisation Forum, emphasised the rapid pace of technological change.

"AI in our sector is moving extremely rapidly. Last year has seen as much meaningful improvement in AI application than we saw in the last five years combined. As an industry, we need to keep pace with this change or we run the risk of being left behind. If we don't get on board with this new technology now, it might be too late. In five years' time, our workspace is going to look very different."

> "It is essential that we train AI in the right way."

Delegates heard that the maritime supply chain as a whole is primed for innovation. Currently, fragmented and inconsistent documentation remains a significant pain point, but AI-driven solutions are already streamlining not only the documents themselves but also the processes of sending, receiving, and storing them.

Within marine insurance, AI-powered innovation is expected to integrate brokers and underwriters more closely, generating synergies previously unimagined. From pricing and claims handling to risk assessment, AI will increasingly shape the industry's future.

However, Khanna also cautioned that these opportunities come with inherent risks: "AI is a learning tool and it learns from us. It is essential that we train AI in the right way and in an ethical way that avoids bias—both conscious and unconscious." ●

BROKING

P&I: claims and data set the tone

Data, relationships and claims define the fragile equilibrium in P&I reinsurance heading into 2026, says Gallagher Re's Jason Cudlipp.

In protection and indemnity (P&I) reinsurance, the balance is fragile, but one truth is clear: the best data wins. That is the message from Jason Cudlipp, P&I reinsurance practice leader at Gallagher Re, who described the sector as operating in a "fragile equilibrium". The biggest differentiator is the strength and quality of the information cedants can provide.

"The currency of reinsurance is data, and if you can supply the best possible data to your reinsurers via the best possible broker, you're going to be differentiated in the market," Cudlipp explained. Increasingly, this is the organising principle for renewal outcomes and access to capacity.

Cudlipp explained how the Baltimore bridge collapse in March 2024 temporarily hardened the P&I reinsurance market, with reinsurers pushing for higher rates. "From a category perspective however, we saw that the macro reinsurance landscape was going to be softer than the cedants expected," he recalled.

"Those aspirations of increased rate were only temporarily available, and then the market softened relatively quickly through last summer, and in particular into the last P&I reinsurance renewal season."

Into 2025/26, capacity has remained stable. "There have been no withdrawals of P&I reinsurance capacity in the market. We're seeing probably fewer than a handful of new entrants coming to the market looking to write P&I reinsurance in 2026 and we're aware of several existing reinsurance markets which are looking to increase their line size and market share into 2026 as well," Cudlipp said.

"Certainly the macro environment is leaning slightly more towards the buyers than it was a year ago."

Relationships and data stand out as the two biggest points of differentiation. With long-tail liabilities and slow claims development, reinsurers value consistency and predictability. "It's becoming more important that the long-term relationship is going to be beneficial to both sides," Cudlipp stressed.

KEY POINTS:

- Data drives reinsurance differentiation
- Capacity stable with slight buyer tilt
- Perceived claims inflation remains core challenge

> "The macro environment is leaning slightly more towards the buyers."

Alongside this, buyers who can provide accurate and granular data "achieve better reinsurance outcomes than those who cannot".

Claims trends remain the most significant source of pressure. Cudlipp noted that it was "all geared around historic and expected future claims levels, and that's where the data aspect becomes very important".

He added: "We've experienced major claims in the market over the last 10 to 20 years where it's taken several years to come to the ultimate value of that claim. Modern insurers can sometimes struggle to understand that they may have to wait a longer period of time than their shorter tail lines of business to get certainty of outcome."

Systemic risks such as cyber or environmental liabilities have not materialised significantly in P&I, although they loom elsewhere in marine. "They look systemic from an outsider's perspective, but from an industry lens, there's a little more understanding of what happens in reality aboard ships on a day-to-day basis," he explained.

> "While P&I is often commoditised, reinsurers scrutinise the mix of business."

Other concerns

Geopolitical pressures remain real. Cudlipp pointed to the quick response by clubs, brokers and reinsurers to maintain cover for Ukraine's humanitarian grain corridor, and the rise of cancellation clauses. "The market now has the ability to send notice of cancellation on particular war areas in P&I reinsurance, which is something new over the last three years," he said.

Still, he insisted, "clients and markets, if required, will always find a solution. There is capacity out there to keep global trade moving".

The concentration of risk among the 12 international group clubs also shapes reinsurance strategies. While P&I is often commoditised, reinsurers scrutinise the mix of business, particularly exposures from large container ships. That lens extends to vessel size, trade routes and accumulation risk.

"Some reinsurers do choose to write certain clubs, or to write clubs at a maybe more remote level, where their historic claims activity hasn't yet occurred," Cudlipp observed.

Gallagher Re has developed tools to dig deeper into claims and portfolio analysis. "We now have tools which allow us to be more forensic in the analysis of portfolios for risk type through to claim type, through to some predictive analytical tools we've developed here," he said.

Overall, Cudlipp expects an orderly renewal, barring shocks. "We're sitting steady for a relatively calm and sensible renewal season," he concluded. ●

Jason Cudlipp is P&I reinsurance practice leader at Gallagher Re. He can be contacted at: jason_cudlipp@gallagherre.com

ARTIFICIAL INTELLIGENCE

Aspiration v readiness: the AI gap

AI is no longer on the horizon—it's here, and its presence in marine insurance will only grow.

There is no doubt that artificial intelligence (AI) is gaining a foothold in the delivery of marine insurance, and over time it may become hugely influential if its progress is maintained.

Farah Bukhari, senior data analyst at Concirrus, an IUMI Professional Partner, made the point loud and clear in an August 2025 blog, published on the IUMI website. "AI is no longer on the horizon—it's here, and its presence in marine insurance is only set to grow," she wrote.

Over the full course of action in marine insurance there are several areas where AI integration could become more dominant in the industry, such as its processes, the accuracy of underwriting, risk assessments incorporating vessel behavioural risk, and claims analysis.

According to Jarek Klimczak, chief risk consulting officer, specialty, at AXA XL, the potential of AI for the marine insurance industry is significant.

Across the market, it's already improving efficiency and risk assessment accuracy. It can help to automate data intake, reduce manual effort, and speed up risk evaluation.

In underwriting, AI can aid detailed risk assessments and operational insights through route optimisation, predictive maintenance, and safety monitoring.

Although AI's impact on risk exposure is still emerging, applications such as fire detection show promise, although Bukhari stressed that the potential is not yet being realised.

"Despite this potential, many underwriters are still unsure how to leverage AI in ways that measurably reduce claims, improve loss ratios, or improve operational uptime for shipowners," she wrote.

"In particular, the opportunity to harness AI for proactive loss prevention remains largely untapped. Could we use AI to nudge shipowners toward more efficient maintenance programmes? Could we predict mechanical failure before it happens?"

KEY POINTS:

- Use of AI set to grow in marine
- Human involvement often needed
- Laws being introduced around AI

"Actual intelligence is still very much needed for proper risk assessment."

Martin Lanting

Human judgement needed

For claims, AI helps in some cases but still relies on humans for complex, multi-party claims such as general average. Overall, AI will drive more accurate, proactive risk management, with ongoing integration challenges.

"AI benefits the industry by enabling consistent, efficient risk management across markets," Klimczak said.

"It complements human expertise, combining AI's speed and precision with professionals' nuanced understanding.

"While AI is widely adopted in sectors such as health and auto, complex marine risks still require specialised brokers and underwriters.

"AI can help to streamline operations and data analysis worldwide, supporting a connected, adaptable industry, but human judgement remains crucial for unique or complex risks."

AI can handle routine tasks such as data entry, info gathering, and document summarisation, often doing them faster and more accurately, Klimczak stated.

"As AI improves, it will free up our experts' time who will be able to focus on more impactful work that requires deep expertise, such as legal judgment, or sensitive handling complex underwriting or compliance.

"Our people will continue to provide essential nuance and specialised skills."

Claims handling help

Earlier this year Noria, which specialises in solutions for marine insurers, released details of how AI is to play a key role in marine insurance claims handling, drawing on its own experience of creating its ClaimsBuddy AI assistant.

Any AI claims handling assistant needs to excel in analysing in-depth documents, being able to decipher and extract essential information, and have the ability to offer summaries.

Simultaneously any such AI tool should also have the capacity to speed up the process, minimising time spent on scrutinising complex data, requiring minimal training.

The early data that Noria has compiled on ClaimsBuddy indicated that it creates efficiency savings between 25 and 50 percent, benefiting both the insurer and the customer.

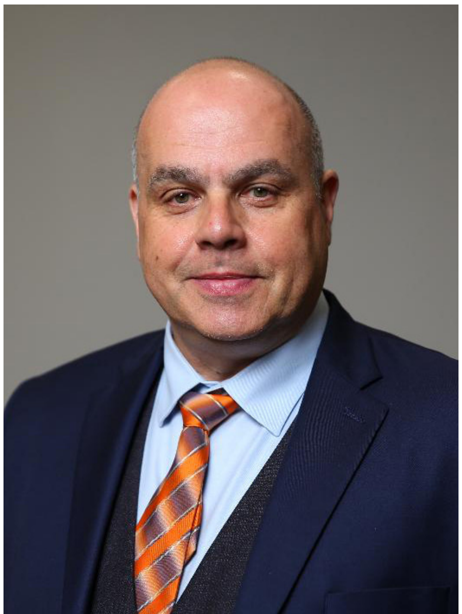
A way to go for AI

Martin Lanting, the founder of Insure Marine Underwriting, has however asserted that AI does not have a significant presence in the marine insurance market just yet.

"It is difficult to make a measurable comparison, at least for our business in marine liability insurance. The variety of different risks is so high that personal attention is needed all the time," he said.

"The answer must therefore be that the influence of the use of AI tools is very limited, at least to date.

"We should implement AI tools where possible, but now the division is 95 percent human intelligence."



“Insurers must ensure human oversight and accountability.”

Jarek Klimczak

It is necessary to make a difference between marine insurance products, Lanting explained, which are more or less commoditised with identical cover wordings and tariffs. This happens mainly in the hull and machinery and marine cargo markets.

“These markets are cyclical, with soft and hard market periods.” Lanting said. “It is also known for subscription underwriting where insurers offer a small share of the 100 percent risk.

“AI can have an influence, but in our marine liability market human intelligence is leading, because each risk is different. It seems to be that AI models will be less helpful.”

The future

Looking ahead, AI appears certain to increase its presence by increasingly handling routine data-heavy tasks such as risk categorisation, data collection, and initial claims.

Lanting said that his firm will follow AI closely and with the billions of dollars invested in the technology it is probably going to be difficult to remain sceptical over how influential AI can be in years to come.

“It is early days and probably actual intelligence is still very much needed for proper risk assessment of different risks.

“Maybe the sum of artificial and human intelligence brings us to the ‘actual intelligence’—I am not a technician in AI,” Lanting added.

“I use my human brain in assessing what I think about AI technology, and probably my assessment may change completely over the next five years, because it is most likely that AI is here to stay and will engineer further improvements.”

Klimczak argued that as AI will take responsibility for several daily intensive data-based tasks, this shift allows humans to focus on complex underwriting, legal interpretation, and client engagement.

As AI advances, integration will deepen, supporting real-time monitoring, proactive risk management, and personalised services.

The extent of AI’s growth will depend on the technology, industry acceptance, regulation, and policy updates, but overall, AI’s role is set to grow significantly, making the industry more agile and resilient.

“These innovations can deliver real benefits for insurers and clients alike, provided they are thoughtfully assessed and embedded within a strong governance framework,” Klimczak reflected.

“Any innovation using AI must comply with applicable laws and regulations, notably the EU Artificial Intelligence Act where it applies.”

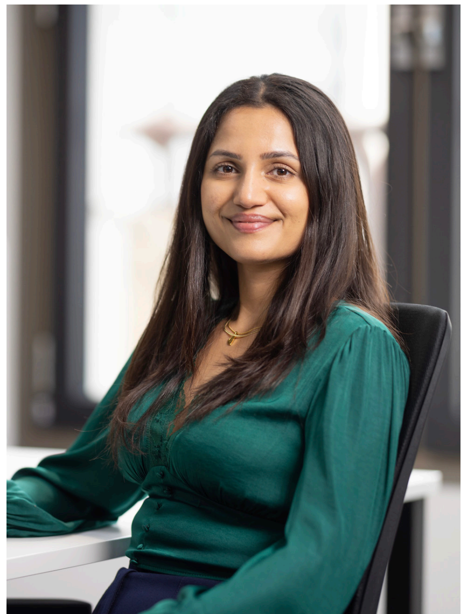
The legislation was first proposed by the European Commission in April 2021, and has been advertised as the world’s first comprehensive AI law.

Since then the European Parliament has established that the main pillars of the legislation are to ensure that AI systems are safe, transparent, traceable, non-discriminatory and environmentally friendly.

Klimczak said: “Insurers must ensure human oversight and accountability, design for transparency and explainability, prevent and mitigate bias, and apply strong data governance and security throughout the AI lifecycle.”

Bukhari made the point that another inhibitor to AI is fragmented data ecosystems, legacy systems, and a lack of digitisation the industry is grappling with.

“Many insurers struggle to extract value from the vast quantities of structured and unstructured data they hold. But the future of AI in insurance lies in bridging this divide—



“Rather than reacting to loss, insurers can predict and prevent it.”

Farah Bukhari

through smart data extraction, enrichment, and integration across systems and sources,” she wrote.

“A clear gap exists between aspiration and readiness. To close it, insurers must invest in foundational capabilities: data pipelines, interoperable systems, and governance frameworks that enable trustworthy automation. AI doesn’t work in isolation—its insights are only as good as the data it’s trained on.

“Confidence in AI models will grow as we reduce the ‘black box’ effect through explainable AI, robust validation frameworks, and transparency in data sourcing.

“The payoff? Enhanced risk mitigation. By using AI-powered analytics to combine real-time vessel data, historical claims, and telematics data underwriters can reduce uncertainty, improve risk selection, and sharpen pricing accuracy. Rather than reacting to loss, insurers can predict and prevent it—increasing both profitability and the shipowner’s operational uptime,” she concluded.

TARIFFS

Tariffs create a storm for insurers

Tariffs imposed by the US have caused headwinds for marine insurers globally—but they represent opportunities as well as challenges.

Since Donald Trump's return to the White House in January 2025, the explosion of tariff actions from the US has caused problems for marine insurers globally.

Overall, the immediate impact on marine insurance has been substantial: higher tariffs have the capacity to inflate the value of all items, many of which might already be in transit.

Moreover, any rush to import or export goods before any tariffs are implemented can lead to goods accumulation, increasing concerns over whether coverage policies are sufficient.

The latest major US tariff move (as of August 27) was to impose a 50 percent tariff on goods arriving from India. This, as had been the case with many tariff hikes, provoked sharp retaliatory trade levy policy exchanges.

Yet this decision was taken only two weeks after the US and China agreed to extend their truce on placing higher tariffs against each other for 90 days. The uncertainty that exists in the world economy is obvious.

Perhaps despite the uncertainty, according to the latest report from the World Trade Organization, global merchandise trade is still predicted to grow by 0.9 percent for this year—this is up from a predicted 0.2 percent contraction forecast in April, but way down from the 2.7 percent estimate before the many US tariffs were introduced.

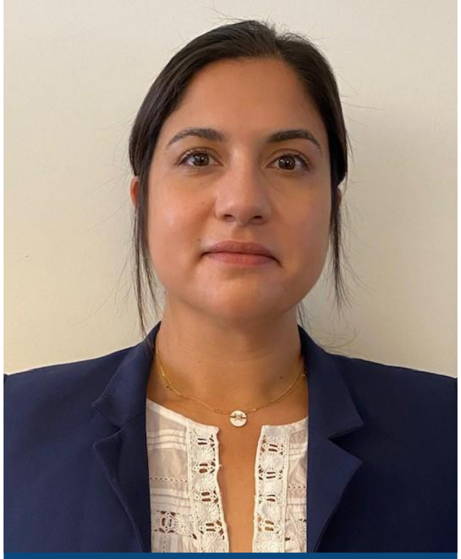
Part of that change has been due to companies getting more products shipped early. This surge in front-loading imports to the US, which has caused alarm for insurers for other reasons, has been the main driver of trade growth. But next year higher tariffs will begin to weigh heavier on global trade. The growth forecast is down from an expected 2.5 percent to 1.8 percent, according to forecasts from the World Trade Organization.

Supply chain issues

All of this uncertainty means that businesses across many sectors may need to re-evaluate their supply chains, due to the disruptions that have been triggered by the introduction of the tariffs.

KEY POINTS:

- Tariffs mean headwinds for insurers
- Delays in supply chains a worry
- New risks and exposures emerge



> ❝ We are committed to supporting our marine customers through the challenges. ❞
> Camilla Chandra

As standard cargo policies are not always inclusive of the costs of tariffs, importers could also be exposed to unexpected costs leaving financial gaps to plug.

Rising market volatilities can often lead to hesitation from firms in many economic sectors to make supply chain decisions, consequently insurers will have the face the challenges of shifting decisions with the reassessment of risk portfolios.

It is a situation that is not helped by the often erratic and impulsive policymaking of Trump over tariffs.

Camilla Chandra, the head of marine EMEA at the Zurich Insurance Group, explained that the knock-on effects of US tariff policies have not yet been fully felt. However, it is clear that any companies involved in international trade will see both challenges and opportunities arising from a challenging trade environment, with increased potential for supply chain disruption, higher costs and more complex compliance requirements.

"Chief among those concerns is the increasing potential for delays to supply chains caused by tariffs, and other trade measures which are already under pressure from other factors," she told *IUMI Today.*

"Rising tariffs can have an immediate impact to prices and supply and demand of goods as well as wider effects.

"They can result in additional challenges such as higher inflation and more complex insurance requirements as a result of stockpiling and accumulation concerns, increasing the theft attractiveness of certain cargos."

New risks, new exposures

Such factors could accelerate the reshaping of global trade patterns across the rest of the world, resulting in new exposures for risks managers to assess.

This will affect some goods more than others, for example electronics, pharmaceuticals, heavy machinery and automotive products that become the focus of restrictive trade policies.

Additionally, tariff policies may compound the rising threat of civil disruption and international conflicts, a key area of concern for this year as stated in the World Economic Forum's Global Risks Report 2025, published in January.

In a survey for the report that asked which were the top risks that would have to be addressed by "minilateral" agreements, the respondents said that geoeconomic confrontation, including tariffs alongside sanctions and investment screening, would potentially have the most impact in global risk reduction.

Economic hostility arriving from tariffs

was seen as a bigger risk danger than state-based armed conflict involving terrorism and proxy wars, and biological, chemical, or nuclear weapons.

"There is already good awareness around the nature of some of these impacts because of recent supply chain disruptive events such as the global COVID-19 pandemic and the inflationary environment," Chandra stated. "However, the potential for more restrictive trade policies requires additional vigilance and the necessity to proactively strengthen resilience."

She added that uncertainty makes the role of brokers and insurers more important than ever.

"It highlights the importance of maintaining close collaboration between customers, brokers and insurers to support our customers with identifying and assessing these risks and their impact and what options exist to strengthen resilience and mitigate some impacts.

"We are committed to supporting our marine customers through the challenges posed by a changing trade environment and are supporting them in identifying new and changing exposures as a result of this.

> "Businesses across many sectors may need to re-evaluate their supply chains."

"We are actively encouraging customers and risks managers to take consideration of all these factors particularly as companies pursue strategies to strengthen business resilience, where this could involve new trade partners and new geographies."

Global tariffs are reshaping supply chains for many products, with firms across different sectors looking to mitigate the effects of the tariffs and acting quickly over supplier relationships and rethinking sourcing options.

Firms can strengthen their resilience in many ways in the current climate, for example by developing and being active in further discovering new trade routes to offset or avoid the impact of tariffs altogether.

Customers beware

Chandra revealed that Zurich's marine insurers customers should be mindful of how tariffs might impact their coverage requirements where increased limits or capacity might be required as a result of increased value of goods, as risk hotspots emerge.

"We will continue to work closely with customers and brokers to assess and underwrite changes in the supply chain environment, as their business models adapt as well as utilise our risk engineering expertise to support customers during this transition."

The marine insurance industry will be keeping a close eye on how Trump continues to use tariff measures, and more importantly building strategies in tandem with global economic fluctuations.

RISK MODELLING

Marine insurance faces climate test

Experts explain to *IUMI Today* how the industry is moving beyond historical models to confront the multi-layered risks of climate change.

In June 2019 the village of Wainfleet in Lincolnshire in the UK was engulfed by one of the worst floods in living memory. Weeks of relentless rainfall had swollen local rivers beyond their banks, and the town's centuries-old flood defences finally gave way, sending a torrent of water rushing through streets and homes.

Residents watched as their cars, gardens, and possessions were swept away or submerged, while the local community scrambled to rescue those trapped on upper floors. Emergency services were stretched to the limit, evacuation centres overflowed, and essential infrastructure such as roads, bridges and power lines was badly damaged.

Such incidents underline a stark reality for the maritime sector: traditional approaches to risk assessment, based on historical patterns, are increasingly inadequate in a world facing more frequent and intense climate hazards.

Global shipping is not immune. Rising sea levels, stronger storms, shifting currents and increasingly unpredictable weather are creating complex risks for vessels, ports and supply chains. In some cases, previously reliable trade routes are becoming dangerous or impassable, while long-term impacts such as corrosion, changing ice coverage, and shifting hurricane patterns pose serious challenges to insurers and shipping operators alike.

Dynamic risk modelling

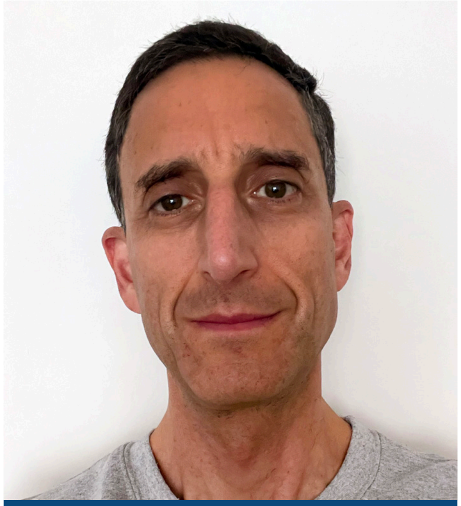
To address these evolving threats, the marine insurance industry is turning to dynamic risk modelling that combines climate science, satellite imagery, artificial intelligence (AI)-driven analytics and behavioural data.

By integrating real-time observations with long-term projections, insurers can better anticipate emerging risks, understand fleet vulnerabilities, and enhance portfolio resilience.

From analysing storm exposure and route safety to projecting the financial impacts of sea level rise, these advanced approaches are redefining how maritime underwriting is conducted in the face of climate change.

KEY POINTS:

- Climate change makes risk modelling tougher
- Dynamic risk modelling offers some solutions
- Quality of data central to good outcomes



“If our actions change, then the oceans and weather will change differently.”

Ilan Kelman

Fiona McPartland, head of actuarial analytics, marine at Miller, told *IUMI Today* that this is an area the broker is exploring, in partnership with marine insurtech Clearwater Dynamics. Together, they have developed what they call a Fleet Portfolio Analytics platform on the CWD Coral system. This platform streamlines the placement process and maps behavioural characteristics against fleet performance and exposure.

“Miller's maritime broking teams are working closely with the data and actuarial teams to better understand the complexities of marine insurance, while using new behavioural markers to analyse risk,” McPartland said. “This helps identify emerging loss and exposure trends across the industry, particularly in the face of climate change and political uncertainty.

“By leading with this data-driven approach, Miller is unlocking powerful insights and offering greater reassurance to both clients and markets.”

Connecting climate change

Others also explain the importance and uses of dynamic risk modelling. Ilan Kelman, professor of disasters and health in University College London's Department of Risk and Disaster Reduction, believes that disaster risk science will become very important in shaping dynamic risk modelling for marine insurance.

“The strength of disaster risk science is connecting climate change risks with many other risks,” he said. “Climate change, by definition, is long term. Disaster risk science covers all time scales and is especially useful at linking current and immediate needs with longer-term concerns and scenarios.”

Kelman added that such technology offers advice for dealing with weather now based on existing mechanisms and technologies, while projecting into the future to indicate how those mechanisms and technologies ought to be developed and adjusted to redress the likely impacts of climate change.

“Shipping might want to avoid an Atlantic hurricane churning up the seas now, while considering insurance needs and route adjustments for less frequent but more intense hurricanes due to human-caused climate change. Meanwhile, long-term impacts on hull and harbour corrosion due to acidifying oceans need to be understood alongside short-term, current impacts of more heat/humidity and less cold weather,” he said.

> Miller is unlocking powerful insights and offering greater reassurance.
>
> Fiona McPartland

Asked about the main challenges in translating climate science, such as projections of intensified storms or rising sea levels, into actionable and reliable data for maritime underwriting and insurance portfolio management, Kelman homed in on the importance of data.

"The main challenge is estimating which global decisions will be taken on climate change now which will affect the world for decades to come. We are currently not adopting all available options to stop human-caused climate change and to reduce its adverse impacts. If our actions change, then the oceans and weather will change differently, affecting risks to maritime traffic," he said.

"Another major challenge is uncertainties and unknowns in projections. An ice-free Arctic Ocean might sound lucrative for shipping, offering swift routes across the North Pole and avoiding geopolitically difficult routes such as the Northeast Passage, but we have little information on projections for cyclonic storms and rogue waves in an ice-free Arctic Ocean, with significant insurance and safety implications."

Addressing unknowns

In response to a question about how improved disaster risk modelling could affect future global maritime operations, particularly as shipping routes change and port infrastructures face increasing climate-related risks, Kelman said such modelling could help manage uncertainty.

"Improved disaster risk modelling would be most effective by narrowing the range of uncertainties and addressing significant unknowns, notably for storminess, wave power and wave type, ice alterations, and changes to currents including the Gulf Stream with subsequent weather impacts," he said.

"Little can be known for certain. Improved modelling can indicate changing likelihoods of specific scenarios while focusing what is and is not known about particular routes and ports.

"How much will melting ocean ice lead to increased bergs in the short term, followed by fewer ice-related concerns in the long term? What are possibilities for hurricane tracks shifting latitude and for a new storm intensifying more rapidly? Disaster risk modelling contributes to answering such questions."

Ralf Toumi, director, Grantham Institute for Climate Change at Imperial College London, agreed that a new approach is needed to modelling in the context of climate change.

"Climate change is accelerating. This poses a challenge to traditional risk models that overly fit to the past. In our own research we are incorporating physical concepts and the latest research to evaluate the impact of climate change on tropical cyclones," he said.

> We use this to map coastal and inland flood risk globally down to 30m.
>
> Paul Bates

"The insurance challenges are complicated, with overlying changes of all three risk parameters: hazard, vulnerability and exposure. Applying advanced data sources and analytics is necessary, but we should not lose the need to physically understand the changing risk we are modelling."

Paul Bates of the School of Geographical Sciences, University of Bristol, UK, added: "Our speciality at research company Fathom is flood risk assessment. Here we're using state-of-the-art dynamic models driven using terrain and boundary condition data created by coupling satellite data with advanced AI.

"We use this to map coastal and inland flood risk globally down to 30 metre spatial resolution for the present day and into the future. This allows us to determine how sea level rise and changing storm conditions may impact insured assets, supply chains and investments.

"Our key innovation over the last few years has been to develop the methods to downscale the coarse predictions of sea level rise and climate from the Intergovernmental Panel on Climate Change and produce detailed and granular estimates of changing flood risk." ●

RISKS

From Snapchat and TikTok to civil unrest

KEY POINTS:
- 800 anti-government protests since 2017
- Transport infrastructure a common target
- Cyber risks overlap with political violence

A protest in one city used to take days or weeks to ripple outwards. Now, thanks to social media, unrest can go global within hours, with ports, shipping hubs and supply chains squarely in the crosshairs.

Allianz's latest report "Political Violence and Civil Unrest Trends 2025" warns that this speed and scale of disruption is testing even the most resilient maritime operations.

Since 2017, there have been over 800 significant anti-government protests in more than 150 countries, with more than 160 events in 2024 alone. In the 20 countries with the highest protest and riot activity last year, Allianz counted more than 80,000 incidents.

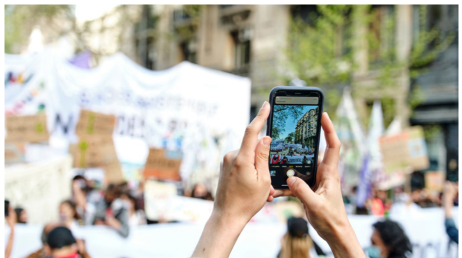
Almost 20 percent lasted more than three months, prolonging disruption to trade and transport. The report noted: "Businesses are more concerned about the disruptive impact of anti-social behaviour on their operations than that of any other political violence and terrorism exposure."

Civil unrest, or strikes, riots and civil commotion (SRCC), ranked as the number one political risk globally in the Allianz Risk Barometer 2025, ahead of war and terrorism.

Srdjan Todorovic, head of political violence and hostile environment solutions at Allianz Commercial, said: "The SRCC peril, and events such as riots in Chile and South Africa and the Black Lives Matter unrest in the US have resulted in insured losses well in excess of $10 billion over the past decade, surpassing other levels of political violence and terrorism insurance claims."

For shipping, political unrest ashore often spills into maritime choke points. Transport infrastructure is a common target, alongside government buildings and distribution centres. "Businesses are victims of their locality and their footprint", and a port city protest can swiftly become a logistics crisis.

The "super year of elections" in 2024 saw nearly half the world's population go to the polls, and while widespread election-day violence was largely avoided, post-vote policy changes triggered major unrest. In Kenya, tax hikes on food and other sectors led to parliament being



> "Political unrest ashore often spills into maritime choke points."

stormed and set ablaze. In New Caledonia, proposed voting rule changes sparked riots that left at least 13 dead and caused insurance losses exceeding $1 billion.

Economic hardship also played a role. In Martinique, protests against the high cost of living turned violent in September 2024. In Turkey, political events fuelled huge demonstrations in March 2025, following a near 80 percent jump in protest activity the previous year.

Social media have amplified both the pace and severity of unrest. In the UK, violent disorder erupted in over 20 towns and cities after misinformation spread online following a knife attack, resulting in thousands of arrests, hundreds of jail terms and insured losses in the low hundreds of millions of pounds. Some social media posts led to imprisonments; a reminder of how fast false narratives can turn into real-world risk.

It's not just crowds in the streets that worry Allianz analysts. Covert state-sponsored sabotage—from damaging undersea cables and pipelines to jamming ships' GPS—is on the rise. Almost 200 civilian vessels have been linked to suspected espionage in the North Sea.

Cyber risks overlap with political violence, particularly for ports reliant on industrial control systems: attacks on utilities in the US and cyber disruptions to rail networks in Europe show how easily transport infrastructure can be paralysed.

Protectionism and tariffs are another problem, as Etienne Cheret, regional head of political violence and terrorism at Allianz Commercial, pointed out: "Further post-election changes or policy changes by governments will continue to be trigger factors."

In hotspot territories, civil unrest losses can rival those from natural catastrophes. "Political violence perils need to be factored into business interruption, continuity and planning," Todorovic concluded. ●

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