

eGuide

How to Harness Data for World-Class Marine Insurance

Use technology and data to simplify workflows, underwrite with precision and stay compliant.



Introduction

A word from our insurance specialist

Today's globalised marine industry faces diverse and complex insurance risks that require a data-driven approach to avoid knowledge gaps and oversights.

As supply chains, trading relationships and regulations become more complex, the risks increase in parallel. Challenges range from evolving sanctions regulations, cyber threats and piracy, to environmental compliance pressures, geopolitical events and weather hazards.

Exposure accumulation is now one of the biggest concerns for marine insurers, with losses

multiplying when risks combine and materialise. Think of the knock-on effects from the Ever Given blocking the Suez Canal in 2021, or the explosion in the port of Beirut in 2020.

Climate change and wider ESG issues also pose huge challenges, requiring a far more granular focus, while Covid-19 has underlined the need for greater protection and resilience in an increasingly unpredictable world.

Success as a marine insurer depends on having the right data to fully comprehend and manage commercial and compliance risks.

Although the marine insurance industry was not initially quick to digitalise, data and insurtech are here to stay and are already having a major impact on risk assessment and management.

Armed with high-quality market intelligence, data-driven insurers will be better placed to calculate premiums precisely, handle claims quickly and efficiently, and stay abreast of current and emerging hurdles.

This guide explores how insurers can mitigate risks in the marine industry by using reliable data and sophisticated analytics to simplify workflows, underwrite with precision, stay compliant and gain competitive advantage.



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Section one

The growing challenges faced by marine insurers



Insurers are increasingly finding that the traditional model of risk assessment, based on a combination of human judgement and trust, is no longer enough, and the trend is for greater use of data and predictive analytics in the marine insurance market. Falling behind on this score means increased exposure to a twofold set of risks: commercial and compliance-related.

Understanding commercial risk

If risks are not properly assessed and priced accurately, losses may exceed premiums. Smart pricing and more informed claims handling will minimise commercial exposure. For that, insurers need detailed information about potential risks or the specific circumstances surrounding risks that have materialised and triggered claims.

For example, after a hull is damaged following a collision in port, or when fire breaks out on a container ship at sea.

Without data that is accurate, timely, relevant and complete, insurers may take on unacceptable levels of risk. This will jeopardise commercial success in today's competitive trading environment. On the other side of the coin, inability to distinguish and assess risk specifically could lead to lost opportunities, for example by applying a blanket policy to higher-risk categories or markets, thus excluding acceptable vessels or trades within those.



A lack of transparency is a common problem, obscuring risk accumulation for vessels and cargoes.

After a series of high-profile onboard fires, such as the [X-Press Pearl in May 2021](#), concerns about misdeclaration of cargo and failures of packaging are being investigated. When the Maersk Honam similarly caught fire in 2018, the subsequent investigation revealed failings which could have been avoided had there been better transparency and due diligence.

Pinpointing compliance risk

Regulatory and compliance requirements are now more demanding, so insurers must stay fully informed of global developments to avoid breaches and penalties.

In recent years, global shipping has seen the introduction of many new regulations.

For example, the Office of Foreign Assets Control (OFAC), in conjunction with other US authorities, issued a ‘sanctions advisory’ on [illicit shipping and sanctions evasion](#) in May 2020. It builds on earlier advisories and covers a wide range of deceptive practices that insurers must be aware of and include in their risk assessments. The UK’s Office of Financial Sanctions Implementation (OFSI) has provided [similar guidance](#) on illicit or suspicious shipping practices, together with enforcement actions and penalties.

Against a growing ecological and climate imperative, environmental, social and governance (ESG) compliance performance must also be fully understood and carefully managed.

From the Poseidon Principles for responsible marine insurance, to [IMO 2020](#) limits on sulfur oxide emissions, insurers have a key role to play in upholding standards by vetting vessels and business opportunities from an ESG perspective.

Staying compliant in a changing world

Compliance requires due diligence, which means observing KYC and AML procedures and adopting a data-driven strategy to stay informed about new sanction regimes and world events. It also means having a clear view of often complex ownership structures, with advanced data that can reveal links to sanctioned owners and vessels.



Insurers need detailed compliance data to underpin both pre- and post-bind, thus, minimising risk at every stage in the insurance cycle.

Data must cover vessels, operators and other relevant entities, as well as all geographies where shipping activities occur.

Compliance risk management requires insurers to stay aware of new evasion techniques as well as any dependency that might impact insurance. It is particularly important to identify deceptive practices such as flag hopping, ship-to-ship transfers and ‘going dark’, which is when an automatic identification system (AIS) is turned off to avoid tracking.



The growing prevalence of the AIS ‘Switch-Off Clause’ reflects an attempt to protect insurers from the risks associated with vessels going dark, while recognising that there may sometimes be legitimate reasons for AIS gaps.

This ambiguity underlines the importance of advanced data that layers different factors to build a well-rounded picture of risk.

Section two

The benefits of world-class data and intelligence

Faced with a growing range of interrelated commercial and compliance risks, insurers need more meaningful data to protect both their margins and their reputations.

And they have to continually assess the latest technologies to refine their risk models and monitor developments in a volatile marketplace.

Crucially, failing to act poses another risk: being overtaken by competitors who are digitalising their businesses and using data more effectively.

This was emphasised in a data forum at the International Union of Marine Insurance conference in 2020, when marine insurers were urged to [keep pace with digital change](#).

With the right data and analytics, insurers can identify high-risk exposure quickly and easily, determine a vessel's risk profile, and provide coverage that conforms with changing regulations.



Without a complete and reliable picture, insurers may price premiums incorrectly, incur avoidable claims losses, or suffer reputational damage and financial penalties through non-compliance.

One notable example is the [fine OFAC imposed on one insurance company](#) for insuring shipments to Iran, Sudan and Cuba, in breach of OFAC's sanctions programme.

Section three

Defining and collating data

Insurers are practised data gatherers but the complexity of the marine industry imposes extra challenges for those assessing risks or reviewing claims.

To achieve a 360-degree view, ask the right questions and gather and interpret data that spans the following:



Ship/fleet characteristics and movements

What are a ship's precise specifications? Are its movements being tracked? Has a ship visited a sanctioned port? Is there evidence of illicit ship transfers?



Companies and ownership structures

Ownership structures are often opaque. Is there sufficient data to determine ownership, highlight anomalies and clarify liabilities?



Current and evolving sanctions

Insurers must stay up-to-date with changing regulations. Is real-time market intelligence being used to reveal the latest sanctions?



Historical records

Can you quickly and easily access all the relevant documents and records to ensure accurate pricing?



Local regulatory requirements

How might local regulatory and legal systems impact underwriting?



Global environmental requirements

What are the latest standards, regulations and developments for decarbonisation?



Supply chains and counterparties

Complex supply chains are common in the marine industry. Do you have a [clear view of counterparty risk?](#)



Weather patterns/risk factors

Catastrophe risks are growing due to climate change. Do you have the right data and analytics to make informed predictions?



Geopolitical events

Can you track and respond to wars, civil unrest and other rapidly changing geopolitical events?

Section four

How to evaluate risks

To evaluate risk, blend comprehensive and reliable data with powerful analytics that can make sense of what's happening at sea, in ports, across supply chains, and in the ever-changing compliance landscape.

This will provide a truer picture of risk factors such as:



AIS gaps or manipulation



Counterparty risk



Ownership irregularities



Frequent changes in identity



Illicit or suspicious behaviours



False positives/negatives

It involves far more than simply monitoring official grey lists. Although still important, grey lists just skim the surface and report illicit activity only after the fact. When insurers use AIS location data to monitor vessel movements, it provides a real-time view of what's happening at sea, which can help to assess claims.

Effective risk assessment requires the ability to spot patterns and trends, thus highlighting risks that would otherwise go unnoticed and be absent from underwriting calculations and claims evaluations. This is where technology maximises the value of big data and provides real-time oversight. Apart from AIS to track vessels, insurers can benefit from behavioural data and analytics, artificial intelligence and machine learning.

When behavioural data is combined with characteristics data, insurers are in a much stronger pre- and post-bind position, and can predict future risks and build more accurate pricing models.

Section five

Applying the right data framework

At Lloyd's List Intelligence we not only source the most relevant insurance data, we also use a strict framework to measure and refine data sets.

We call it COACT, which stands for Consistency, Origin, Accuracy, Completeness, Timeliness. We describe it as follows:



Consistency:

Our methodologies use strict rules and defined tolerances to manage consistency.



Origin:

Our data is built on the most reliable inputs from our own exclusive sources and trusted partners.



Accuracy:

We constantly monitor and improve our data sets to remove anomalies, build accuracy and increase precision.



Completeness:

Our data coverage embraces all maritime trade activities, fleet and vessel operations and industry infrastructures.



Timeliness:

Automated data processing and validation ensure data is current and quickly accessible.

Remember the human factor

Data and technology must also be supported by human expertise. Insurers should draw on the services of maritime compliance experts and other specialists who can make informed judgements based on their industry knowledge. And specialists in fields such as data science can provide a more forensic approach, strengthening marine insurers' focus and precision.

Section six

Conclusion and next steps

Reliable and actionable data is the essence of effective underwriting, and marine insurers have special demands.

The complexity of the marine industry together with current volatility and market events highlights the need for superior data and analytics.

Lloyd's List Intelligence solutions help insurers to:

- Evaluate maritime risk – Our maritime data exposes operational and financial risk to inform research and facilitate confident decisions
- Monitor maritime trade – Our online tools and unrivalled data services provide the clear picture of vessel movements, risk and opportunities
- Understand maritime trends – Our experts distil what's happening across the shipping, insurance and legal markets so you can quickly evaluate its impact
- Drive commercial strategy – Our detailed vessel and company information helps you research and identify target markets

Key takeaways

- Every type of insurance requires timely, relevant and complete data, but maritime trade places added demands on insurers to stay informed and compliant.
- Insurers who don't digitalise and use data more effectively risk being left behind and may face rising losses.
- The regulatory environment is becoming tougher and sanctions enforcement is getting stricter.
- Recent events such as the Covid-19 pandemic and the Beirut port explosion, together with long-term environmental threats, highlight the dangers of risk accumulation and exposure.
- Access to the right data and strong analytics will enable marine insurers to significantly improve underwriting and reduce losses.

About Lloyd's List Intelligence

Lloyd's List Intelligence has been a trusted and expert partner to the global shipping industry for more than 300 years. We provide maritime professionals with transparent data, validated analysis, and actionable insights.

Our extensive resources and powerful insights also help insurers to understand and manage the risks associated with marine insurance.

Our marine insurance services span pricing, underwriting, loss prevention, claims, and strategy. Our I-law service helps insurers stay abreast of changing rules and regulations in the insurance market, and we are soon to launch a predictive fleet analytics service.



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