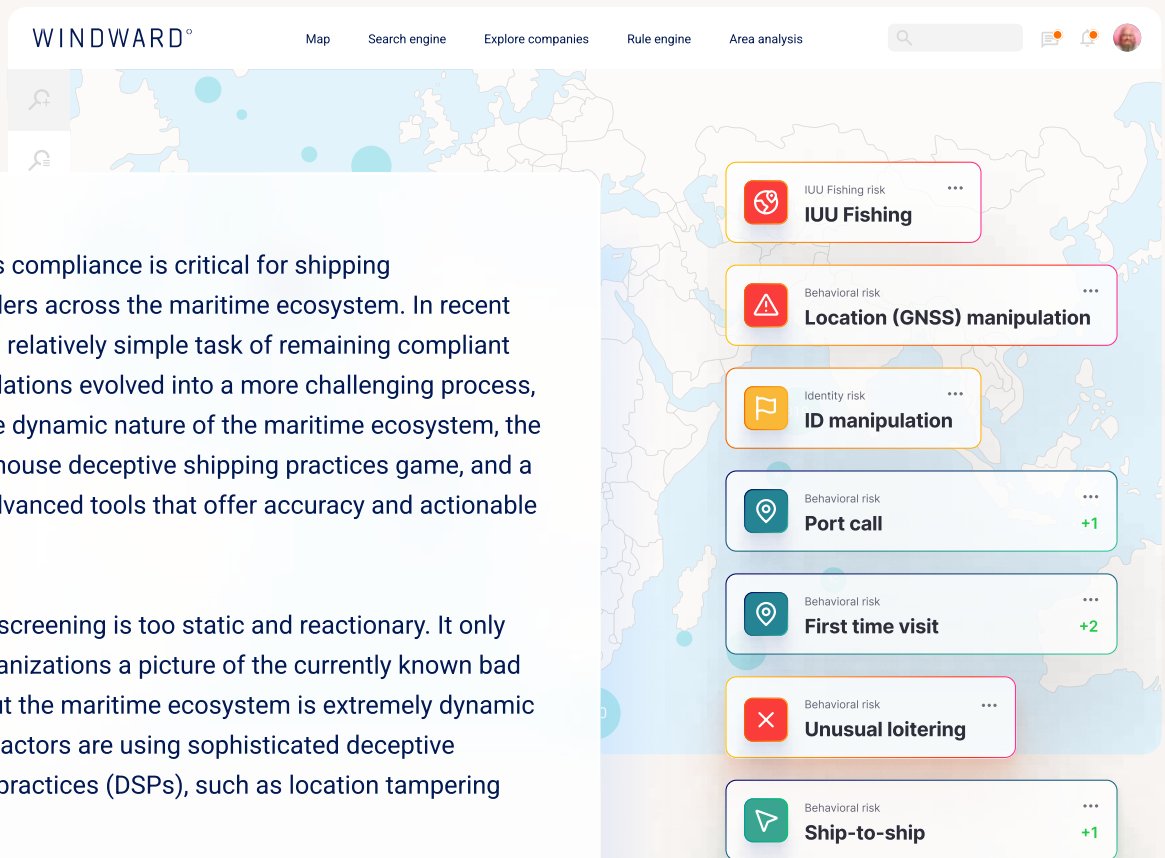


Harness AI for Maritime Sanctions Compliance: Greater Accuracy & Risk Mitigation

Sanctions compliance is critical for shipping stakeholders across the maritime ecosystem. In recent years, the relatively simple task of remaining compliant with regulations evolved into a more challenging process, due to the dynamic nature of the maritime ecosystem, the cat-and-mouse deceptive shipping practices game, and a lack of advanced tools that offer accuracy and actionable visibility.

Mere list screening is too static and reactionary. It only gives organizations a picture of the currently known bad actors, but the maritime ecosystem is extremely dynamic and illicit actors are using sophisticated deceptive shipping practices (DSPs), such as location tampering (GNSS).

Traders and shippers, and government and defense agencies, must make the shift from sanctions screening to effective risk management, so they can be more proactive about obtaining actionable visibility, and determine their appetite for risk vs. their desire to facilitate global trade.



The Pyramid for Success

Maritime organizations obviously need to start with **data**. AIS data comes with a great deal of “noise” that can block the extraction of actionable insights and make sanction compliance more difficult. There are so many objects in the sea and therefore there are so many data points, vessels, ownership groups, third-party businesses, potential DSPs, ports, etc.

Overworked and busy maritime teams do not have the time, available staff members, or financial resources to analyze all potentialities. Fast screening and narrowing the potential aperture is the only way to keep costs down and maximize your team’s ability to concentrate on their core responsibilities – keeping the business safe and growing.

Visibility in and of itself is no longer enough – **quick, actionable recommendations** that enable you to be proactive are the main need across the board. Rather than replacing human analysts, AI’s insights will equip you to make faster and more accurate business decisions within the complex maritime ecosystem and maximize resource allocation, so you can fulfill your role more effectively.

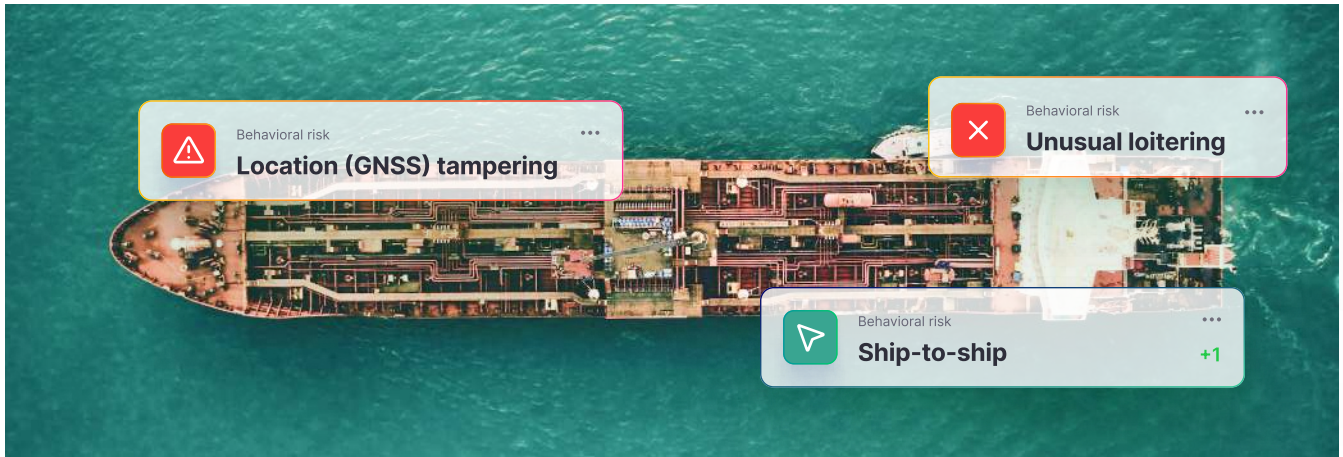
These insights for sanctions compliance help organizations monitor risk beyond simple list screening. Behavioral and predictive analytics, combined with extensive historical data, help organizations proactively determine which vessels have recently deviated from their normal behavior, or are likely to be carrying sanctioned cargo, etc.

When it comes to sanctions, knowing what is happening now is important, but knowing what is likely to occur is critical for proactively mitigating compliance risk. **Predictive models and analytics** automate the process of finding the proverbial needle in the haystack.

What can we call this combination of data optimization, insights, and predictive analytics?



Maritime AI™ as the New Decision-Making Standard



AI has recently become something of a buzzword, following the ChatGPT explosion onto the scene. But not all AI is created equal – it's important to understand if vendors have actual maritime experts training the AI models, if they possess enough historical data, and if the solutions can quickly and automatically detect deceptive shipping practices without negatively impacting business growth.

Best practices include:

- ✓ Maritime domain experts
- ✓ AI models in production, with proven and demonstrated value to the maritime ecosystem
- ✓ Significant and continuous investment in R&D to stay ahead of new risks and maritime trends
- ✓ Tech experts and application of MLOps practices and expertise to speed AI integration

In an ecosystem with many millions of vessel activities every day, you need a tool that accurately identifies what is happening, when abnormal activities are happening, and whether they are exposing your organization to financial, regulatory, or reputational risk. Just because a vessel loses transmission for three hours or more does not always mean it has engaged in illicit activities – you need context to determine that.

AI-driven context is key in helping to eliminate the noise and highlight only risky entities and activities. **This will help your organization grow its business opportunities and act decisively.**

Importantly, Maritime AI™ mitigates risks while keeping false positives to a minimum, facilitating global trade.

What to Look for in a Solution

Accurate Illicit Ship-to-Ship Engagement Model

Illicit ship-to-ship (STS) operations are a popular deceptive shipping practice used today mainly to conceal illegal activities, such as oil and grain smuggling. It has significantly increased in the last couple of years with the emergence of sanctions on Iran, Venezuela, and now Russia. STS operations are continuously evolving to better hide the origin of the smuggled cargo onboard.

With more than **460,000 STS operations in 2022** alone, it is impossible to manually monitor every meeting and ensure your organization is not exposed to risks. The right technology should go beyond heuristic indicators and look at the behavioral context of each meeting (not just the ships' proximity to one another). Where did the ships come from? Where are they going? Are they the same class? Was the meeting taking place in a sanctions prone hub?

Accurately detecting illicit STS operations can enable sanctions compliance teams across the industry to better manage their investigation time, increase efficiency, and boost business opportunities.

Automatic GNSS Manipulation Detection

Global navigation satellite system (GNSS) manipulation methodologies are growing at an exponential speed compared to previous deceptive shipping practices, as noted in our [white paper](#), *Hiding in Plain Sight – Not All That Transmit are Legit*.

This tactic features the use of a machine-generated location/path to disguise the true location of the vessel. Multiple methods have been identified to carry out this deception, including false transmission onboard the vessel and third-party onshore accomplices. This tactic (first discovered by Windward in May 2021) is growing at an alarming rate and has been constantly evolving.

At the beginning, bad actors would generate odd-looking patterns that were very easy to spot as abnormal. Today, they have mastered the technique and can generate AIS tracks and voyages that upon first glance seem natural and legit, and are impossible to identify without an advanced Machine Learning model in place and domain expertise.

Windward's unique GNSS model is the industry's only model that can quickly and automatically identify location tampering (GNSS).



Customer-Centric Approach

An Agile & DevOps approach ensures company-wide alignment on frequent feedback and needs-based product releases, as well as ongoing support from discovery phase to beyond initial usage.

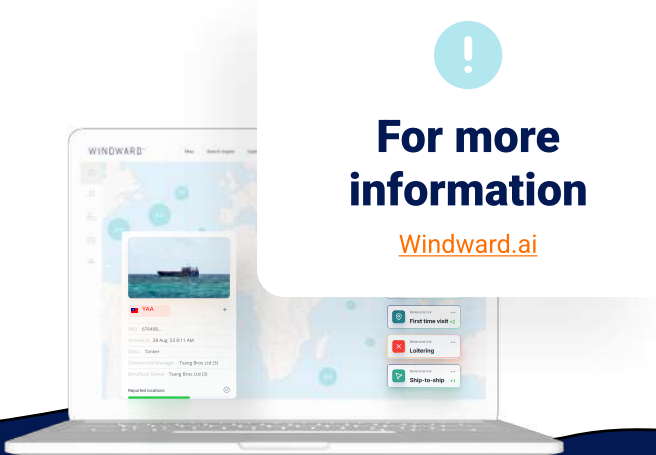
It's important to find a vendor that partners with its customers and encourages a constant feedback loop, to ensure that users are up to date with any developments and influence the road map. Our comprehensive support commences immediately and includes tips about threats and DSPs, assistance with complex investigations, and tweaks to your customized risk profile as the landscape evolves.

Established, Proven Company

Windward is listed on the AIM London Stock Exchange, which provides transparency and peace of mind. Other technology providers in the market are owned by private equity, making them more likely to flip/expand what they currently have, rather than invest in future development.

Windward has a proven maritime track record and a combined 200+ years of experience from naval commanders, maritime data scientists, and maritime trade and shipping leaders. We offer the only deep-learning STS model that is constantly trained with hundreds of thousands of data points. It provides a 96% accuracy rate in flagging illicit STS operations based on AI-driven behavioral analysis.

Windward also offers a **customer-centric approach**. We are invested in helping our partners achieve their missions through our maritime intelligence platform and will always go the extra mile to get them there. By maintaining close relationships with our clients and incorporating their feedback into our roadmap, we continuously upgrade our data and technologies to deliver better, faster, and more powerful Maritime AI™ solutions for risk management.



About Windward

Windward (LSE:WNWD), a publicly traded company on the London Stock Exchange, is the leading Maritime AI™ company, enabling organizations to achieve business and operational readiness. Windward's AI-powered solution allows stakeholders – including major energy, trading and shipping companies, commodity traders, freight forwarders, and logistics service providers – to make real-time, predictive intelligence-driven decisions, providing actionable visibility into the maritime ecosystem and its broader impact on the supply chain, safety, security, finance, and business.