



RISK MANAGEMENT STRATEGY 2025

RISK MANAGEMENT FRAMEWORK

Our framework provides a structured approach to identify, evaluate, mitigate, and monitor risks that could impact company goals. It ensures proactive risk management to support our business objectives.

Risk Identification:

We engage all levels of stakeholders in identifying potential risks, drawing on historical data, expert consultation, and STEEPLE analysis to assess external and internal factors. This includes special attention to emerging risks, with ongoing environmental scans and industry insights to prepare for new challenges.

Risk Classification & Analysis:

Risks are categorized (e.g., Operational, Financial, Compliance), and linked to relevant business goals for targeted analysis. Using a five-point scale for likelihood and impact, we evaluate inherent and residual risk. Emerging risks receive qualitative assessment, informed by scenario analysis and expert judgment.

Risk Evaluation:

We prioritize risks on a matrix that visualizes their likelihood and impact. Each is classified as "Acceptable," "Manageable," "Severe," or "Critical," to align resources appropriately with the company's risk appetite, ensuring severe risks are addressed promptly.

Mitigating Actions:

Mitigation strategies are tailored to significant risks, with clear success metrics and objectives. Responsibilities are assigned to Risk Owners, who track KPIs to ensure each mitigation plan's effectiveness and alignment with business objectives.

Monitoring & Review:

Continuous monitoring and annual reviews keep our risk management dynamic and responsive. Risk Owners report on mitigation progress, with ad-hoc reviews conducted for significant changes, ensuring agility in addressing evolving risks.

RISK MANAGEMENT GOVERNANCE

Effective risk management governance is crucial for ensuring an organization-wide commitment to identifying, assessing, and mitigating risks. This governance framework clarifies roles and responsibilities at every level, from the Board of Directors to individual departments, establishing a unified and accountable approach to managing risks. By assigning specific responsibilities, it enables each team to actively contribute to safeguarding the company's objectives and promoting a culture of risk awareness.

Through transparent communication, oversight, and continuous risk education, this governance structure strengthens resilience and adaptability. It empowers the organization to respond effectively to both immediate risks and emerging threats, ensuring a proactive, coordinated response that supports sustained success and stability.

Board of Directors	<ul style="list-style-type: none">Sets Organization's Risk AppetiteOversights the Risk Management Process	
Executive Officers	Departmental Directors & Managers	Internal Audit Department
<ul style="list-style-type: none">Risk Identification & AssessmentControls and Mitigation Actions PlansRisk and KPI Owners AssignmentRisk Management Process ReviewRisk Strategy Review & UpdateSetting the tone at the top	<ul style="list-style-type: none">Risk AnalysisMitigation Activities & Departmental CoordinationRisk Responsibilities AssignmentMetrics and KPIs MonitoringReporting to Executive Officers	<ul style="list-style-type: none">Independent EvaluationsAdvisory Feedback & Best PracticesMethodological InsightsEnsuring Compliance with standards and regulatory requirements
Departments & Functions		
<ul style="list-style-type: none">Risk Identification & Management at Operating LevelEnsuring ComplianceReporting and Communication		

RISKS OF FOCUS 2025

Based on our assessments, the following risks are prioritized for 2025

Digital Transformation Challenges *

Growing reliance on integrated digital systems, data platforms, and workflow automation introduces significant change-management, governance, and capability challenges. Ensuring successful deployment and adoption is essential to unlocking efficiencies and avoiding operational disruptions or technology-driven vulnerabilities.

Demand Fluctuations

Volatile global demand, route disruptions, and shifting trade dynamics continue to influence charter rates, vessel utilization, and asset values. Demand uncertainty poses direct financial exposure, impacting re-chartering prospects and revenue visibility across markets.

Crew Recruitment & Retention

Global officer shortages, rising wage pressures, and increasing competition for qualified seafarers continue to challenge stable crewing. Sustained recruitment and retention risks affect operational continuity, safety performance, and long-term compliance with international maritime labour and certification requirements.

Cybersecurity *

Cyber threats continue to intensify across the maritime sector, with increasing targeting of vessel systems, operational networks, and third-party platforms. The risk remains a priority due to its potential to disrupt operations, compromise data, and cause severe financial and reputational harm.

Technological Advancements *

Rapid innovation in digital and operational technologies, such as AI, automation, and advanced analytics, creates pressure to modernize while managing adoption risks. Falling behind can reduce competitiveness and efficiency, while inadequate oversight may introduce new safety or decision-quality concerns.

Operational Continuity *

Ongoing geopolitical disruptions, extreme weather events, cybersecurity incidents, and supply chain weaknesses continue to threaten uninterrupted operations. Ensuring resilience across vessel, technical, and shore-side functions remains critical for safeguarding service reliability and financial performance.

Trade Compliance and Sanctions

Expanding sanctions regimes, heightened scrutiny on shadow fleet activity, and stricter due-diligence expectations increase the risk of inadvertent non-compliance. This can impact chartering opportunities, insurance cover, and regulatory standing, making continuous monitoring and robust controls essential.

* Remains as Risk of focus since Prior Year

EMERGING RISKS OF FOCUS 2025

*Emerging risks or risk areas
requiring closing monitoring
for 2025*

AI Governance & Ethical AI Use

AI deployment spans vessel operations, commercial functions, and shore-based support. Maritime AI governance faces unique challenges affecting safety-critical operations under maritime regulatory oversight, classification society and flag state requirements, and charterer confidence. Evolving regulatory frameworks for maritime AI create compliance requirements. Inadequate governance risks regulatory issues, operational disruptions, charter disputes, and stakeholder concerns about system transparency and accountability.

Quantum Computing & Encryption Obsolescence

Quantum computing introduces a long-term but highly consequential threat to current cryptographic standards used across maritime communications, operational technology, financial systems, and corporate IT environments. As quantum capability advances, traditional encryption methods may become vulnerable, potentially exposing navigation, vessel command systems, and sensitive data. Early preparation, through horizon scanning, post-quantum cryptography planning, and system resilience assessments, is essential to ensure future-proof protection against rapidly evolving technological disruption.

Alternative Fuel & Technology Bet Misalignment

The maritime industry's transition toward low-carbon fuels (LNG, methanol, ammonia, hydrogen) creates strategic uncertainty with 15-30 year vessel commitments amid uncertain infrastructure development, evolving regulations, and shifting charterer preferences. Misaligned fuel strategy leads to stranded assets, higher costs, and reduced competitiveness. Requires strategic portfolio approach with progressive diversification and adaptive rebalancing.

Carbon Market Exposure

The extension of carbon pricing (EU ETS, potential IMO global market) exposes the company to significant financial volatility. EUA (emission allowance) price fluctuations can materially affect voyage economics, particularly on longer routes with higher carbon intensity. Unhedged exposure increases operational costs, reduces competitiveness, and may create cash flow volatility.

BUSINESS RISK ASSESSMENT MATRIX 2025



* Emerging risks

RISK MANAGEMENT PLAN 2025

Risk Category	Risks	Exposure	Mitigation
Financial	<ul style="list-style-type: none"> Global Economic Conditions Demand Fluctuations Financial Market Disruptions Inflationary Pressures Charterer Credit Risk Carbon Market Exposure 	<p>Economic volatility impacts the company's financial performance due to fluctuations in global GDP, industrial production, inflation, and exchange rates. Demand for transportation services may fluctuate with these economic shifts, directly affecting revenue and charter rates. Financial market disruptions, such as a sudden tightening of credit markets, could restrict capital access and increase borrowing costs, limiting growth opportunities. Inflationary pressures lead to higher operating costs, reduced profit margins, and decreased competitiveness. Additionally, charterers' delayed payments or defaults expose the company to credit risk, affecting cash flow and financial stability. Unhedged exposure to carbon pricing fluctuations increases operational costs, reduces competitiveness and creates financial volatility.</p>	<p>Financial Resilience:</p> <ul style="list-style-type: none"> Diversify funding sources. Build strong relationships with financial partners. Implement risk management strategies to mitigate interest rate and currency risks. Integrate carbon cost modeling into voyage planning. <p>Operational Flexibility:</p> <ul style="list-style-type: none"> Adopt flexible and adaptable fleet management strategies. Perform regular market analysis. Diversify the charterer base. <p>Strategic Planning:</p> <ul style="list-style-type: none"> Monitor economic and geopolitical trends to identify risks and opportunities. Engage with stakeholders to face regulatory challenges more effectively. Optimize procurement and adjust pricing to counter inflation. Establish carbon allowance procurement and hedging strategy
Operational	<ul style="list-style-type: none"> Fleet Management & Optimization Vessel Insurability Maritime Claims and Security Threats Health & Safety Operational Continuity Crew Recruitment & Retention 	<p>Operational risks arise from challenges in managing the fleet efficiently, securing adequate insurance coverage, and addressing security threats. Inefficient fleet management can increase operating costs, lead to regulatory non-compliance, and affect overall performance. Vessel insurability issues can limit access to adequate insurance, exposing the company to significant financial risks in case of incidents. Security threats, such as piracy and terrorism, pose a risk to crew safety and cargo integrity, potentially leading to legal liabilities and reputational damage. Health and safety risks may result in injuries or compliance breaches, while external events (e.g., natural disasters or cyberattacks) can disrupt operational continuity. The global shortage of qualified officers and ratings exposes the company to operational, safety, and compliance risks.</p>	<p>Operational and Commercial Stability:</p> <ul style="list-style-type: none"> Conduct thorough charterer assessments. Monitor insurance coverage through policy adequacy examination. <p>Operational Efficiency:</p> <ul style="list-style-type: none"> Implement proactive maintenance and renewal strategies. Ensure regulatory compliance. <p>Security & Continuity:</p> <ul style="list-style-type: none"> Strengthen security measures. Promote health and safety culture. Develop business continuity plans to face disruptions. <p>Crew Recruitment & Retention:</p> <ul style="list-style-type: none"> Build long-term crewing pipelines with academies and training centers. Maintain competitive compensation and career development packages. Strengthen employer brand and reputation.

* Emerging risks

RISK MANAGEMENT PLAN 2025

Risk Category	Risks	Exposure	Mitigation
Strategic	<ul style="list-style-type: none"> Relationship Expansion & Competition Executive and Key Personnel Competitiveness Change Management Alternative Fuels & Technology Bet Misalignment 	<p>Strategic risks include increased competition, the loss of key personnel, inadequate management capabilities, and ineffective change management. Failing to adapt to industry changes or innovate can erode competitive advantage, especially in a highly competitive market. Dependence on key executives can disrupt operations if they leave unexpectedly. Ineffective change management processes may lead to employee resistance, lower productivity, and reduced morale. Transitioning to low-carbon fuels carries various risks for the organization. Financial impacts include exposure to obsolete fuel technology investments across fleet and infrastructure, with significant retrofit costs if pathways prove unviable. Strategically, balancing multiple fuel pathways creates diversification-optimization trade-offs, requiring extended decision timelines and higher capital reserves. Operationally, challenges include managing technical complexity across fuel technologies, navigating uncertain infrastructure by trade route, and adapting to evolving regulatory and charterer requirements.</p>	<p>Charterer and Market Relationships:</p> <ul style="list-style-type: none"> Strengthen relationships with charterers. Conduct market analysis and surveys. Engage in industry networking. <p>Management and Leadership:</p> <ul style="list-style-type: none"> Invest in workforce development. Set clear performance objectives. Implement talent retention strategies. <p>Change Management:</p> <ul style="list-style-type: none"> Establish structured processes, focusing on communication and employee support. Facilitate smooth transitions. <p>Alternative Fuels & Technology Bet:</p> <ul style="list-style-type: none"> Perform multi-scenario analysis on alternative fuel, using industry projections and maritime research. Diversify portfolio for balanced fuel exposure, risk-weighted allocation and periodic rebalancing. Exploit fuel optionality in vessel specifications, multi-fuel capabilities and retrofit potential. Monitor fuel supply infrastructure and execute milestone-based investments. Engage charterers on fuel preferences and strengthen fuel supplier relationships. Participate on maritime decarbonization coalitions and alternative fuel initiatives.
Technology	<ul style="list-style-type: none"> Technological Advancements Cybersecurity Digital Transformation AI Governance & Ethical AI Use Quantum Computing & Encryption Obsolescence 	<p>Reliance on technology exposes the company to cybersecurity threats, including data breaches and system failures, which could disrupt operations and damage reputation. Digital transformation challenges, such as skill gaps or resistance to new technology, may impede efficiency and innovation. Rapid technological changes require continuous adaptation to stay competitive. Growing reliance on AI tools may result in regulatory compliance issues affecting vessel certification, potential disruptions from inadequately governed AI systems, and charter contract performance challenges. Commercially, charterer concerns about non-transparent AI systems and competitive disadvantage from delayed adoption present significant challenges. Regulatory non-compliance with evolving maritime AI frameworks could affect vessel operability, market access, and stakeholder confidence across classification societies, flag states, and commercial partners. Furthermore, the anticipated rise of quantum computing poses a long-term threat to current encryption standards that safeguard maritime communications, financial transactions, and operational data.</p>	<p>Cybersecurity:</p> <ul style="list-style-type: none"> Implement advanced security practices and conduct assessments. Promote employee awareness through training. Maintain cyber incident response plans. <p>Digital Transformation:</p> <ul style="list-style-type: none"> Align digital initiatives with objectives. Invest in modern technologies. Offer continuous training for technology adoption. <p>Technology and Innovation:</p> <ul style="list-style-type: none"> Develop technology strategies that optimize operations. Invest in energy-efficient, climate-resilient technologies to minimize environmental impact. <p>AI tool Implementation:</p> <ul style="list-style-type: none"> Design AI governance framework for Senior oversight with fleet operations, technical management, and maritime regulatory expertise. Coordinate with classification societies and flag state administrations. Establish vessel-specific AI procedures, human oversight for safety-critical systems and crew training. Disclosure protocols for charterers and marine insurance providers. <p>Quantum Computing:</p> <ul style="list-style-type: none"> Conduct horizon scanning of quantum computing developments. Collaborate with classification societies and IMO on cryptography standards. Begin phased migration to post-quantum encryption protocols. Test system resilience against quantum threats.

* Emerging risks

RISK MANAGEMENT PLAN 2025

Risk Category	Risks	Exposure	Mitigation
Compliance & Legal	<ul style="list-style-type: none"> Debt Compliance New Environmental Regulatory Frameworks Classification Society Compliance Taxation Corporate Jurisdiction Data Privacy & Protection 	<p>Unfulfilled debt obligations can severely affect creditworthiness and financial stability. New environmental regulations may lead to reputational harm, restricted access to capital, and reduced competitiveness in an ESG-driven market, and require significant adjustments and investments to ensure alignment. Changes in regulations across jurisdictions increase liabilities and compliance complexity. Data privacy breaches are subject to regulatory penalties, reputational harm, operational disruptions, and loss of stakeholder trust.</p>	<p>Debt Compliance:</p> <ul style="list-style-type: none"> Establish debt monitoring, financial planning and cash flow forecasting practices. Implement compliance programs and robust internal controls. Consult experts for professional advice. <p>Environmental Stewardship:</p> <ul style="list-style-type: none"> Comply to environmental standards through frameworks and training. Make use of software tools to track emissions and climate risks. Analyze different GHG Emissions Scenarios to develop proactive climate strategies. Monitor environmental impacts and involve stakeholders. <p>Classification Society Compliance:</p> <ul style="list-style-type: none"> Establish robust compliance management system. Provide ongoing training and awareness programs. Foster strong working relationships with classification societies. <p>Regulatory Compliance:</p> <ul style="list-style-type: none"> Monitor changes in corporate and tax laws to ensure compliance. Enhance employee understanding of compliance requirements. <p>Data Privacy & Protection:</p> <ul style="list-style-type: none"> Maintain GDPR-compliant policies and procedures. Encrypt sensitive crew and charterer data. Provide data privacy training.
Geopolitical	<ul style="list-style-type: none"> Trade Protectionism Trade Compliance and Sanctions 	<p>Geopolitical risks, such as trade protectionism and sanctions, disrupt global trade patterns and market access, potentially leading to penalties for non-compliance.</p>	<p>Trade and Risk Management:</p> <ul style="list-style-type: none"> Diversify markets: Reduce dependency on specific regions. Assess risks: Prepare through scenario planning. Engage in advocacy: Influence policies through trade unions and maintain market access. <p>Regulatory Adherence:</p> <ul style="list-style-type: none"> Implement compliance programs: Adhere to trade regulations. Conduct due diligence: Ensure partners comply with regulations.
Sustainability	<ul style="list-style-type: none"> Ethical Behavior and Ethical Culture Workforce Diversity, Inclusion, and Supply Chain Compliance 	<p>Ethical lapses and lack of diversity can impact reputation, innovation, and workforce morale. Non-compliance with supply chain standards could indirectly affect operations.</p>	<p>Ethical Culture:</p> <ul style="list-style-type: none"> Promote a Code of Conduct through training and reporting mechanisms. Implement diversity policies and address risks in operations and the supply chain. Monitor compliance to ensure ongoing adherence and inclusivity. <p>Supply Chain Management:</p> <ul style="list-style-type: none"> Require suppliers' adherence to standards. Engage stakeholders to promote best practices.

* Emerging risks

STATEMENT ON CONTINUOUS IMPROVEMENT

At Danaos, we are committed to continuously enhancing our risk management practices to effectively address new challenges. By refining our risk management framework, integrating industry best practices, embracing innovation, and investing in the professional development of our team, we strengthen our ability to identify, assess, and mitigate risks effectively.

We foster a culture of learning and open communication, encouraging feedback and insights that help us implement improvements promptly. This approach bolsters our resilience and adaptability, enabling us to meet and exceed stakeholder expectations, maintain a competitive edge, and achieve sustainable growth while upholding high standards of corporate governance and responsibility.

GLOSSARY OF KEY TERMS

- **Compliance Audit:** A review of an organization's adherence to regulatory guidelines and internal policies.
- **Cybersecurity:** The practice of protecting systems, networks, and programs from digital attacks.
- **Emerging Risks:** Newly developing or evolving risks that could significantly impact the organization's ability to achieve its objectives.
- **Impact:** The potential consequences or effects that a risk event may have on the organization's objectives.
- **Key Performance Indicators (KPIs):** Quantifiable measures used to evaluate the success of an organization in achieving its objectives.
- **Likelihood:** The probability that a risk event will occur.
- **Mitigation Strategies:** Actions taken to reduce the likelihood or impact of a risk.
- **Residual Risk:** The remaining level of risk after mitigation strategies have been applied.
- **Risk Appetite:** The amount and type of risk that an organization is willing to pursue or retain.
- **Risk Assessment Matrix:** A tool used to define the level of risk by considering the probability against the severity of consequences.
- **Risk Owner:** An individual responsible for managing specific risks and implementing mitigation strategies.
- **Scenario Analysis:** A process of analyzing possible future events by considering alternative outcomes.
- **STEEPLE Analysis:** A framework used to analyze external factors impacting an organization, covering Social, Technological, Economic, Environmental, Political, Legal, and Ethical aspects.

***Disclaimer:** This document contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from those expressed or implied. The information provided is for general informational purposes only and does not constitute legal or professional advice.*