

**SKILLS FRAMEWORK FOR SEA TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Risk Management, Governance and Regulatory Compliance					
TSC	Risk Analytics					
TSC Description	Utilise quantitative methods, stress testing approaches and risk modelling to support robust integrated risk management frameworks and methodologies					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			STP-ACE-3024-1.1	STP-ACE-4024-1.1	STP-ACE-5024-1.1	
			Understand and analyse quantitative models and implement basic stress testing approaches to monitor and measure risks, while also implementing risk response activities	Design and deploy analysis of quantitative models, risk scenarios, and stress testing processes to facilitate risk management approaches across the organisation and functions	Develop and drive organisation's strategy for designing and implementing quantitative analytics models, scenario analyses and stress testing approaches aligned to the organisation's integrated risk management approaches	
Knowledge			<ul style="list-style-type: none"> Risk management guidelines and regulations Stress testing processes Organisation's risk indicators, risk response activities and processes Basic principles of data analytics, quantitative methods, pricing and valuation models Data analytics Financial mathematics Financial products and markets Data management and use of technology Maritime international and industry regulations 	<ul style="list-style-type: none"> Development and validation approaches for financial and risk management quantitative models Knowledge of risk principles, trends and developments in the financial services and maritime industry Risk measurement, pricing and valuation models Risk management and mitigation framework, policies and processes 	<ul style="list-style-type: none"> Methods for developing procedures, processes and guidelines Emerging trends and developments in risk management within the financial services and maritime industry Organisation's strategic direction, objectives and risk appetite 	
Abilities			<ul style="list-style-type: none"> Execute risk assessment and modelling processes Conduct bottom-up and top-down stress testing approaches 	<ul style="list-style-type: none"> Define objectives, variables and parameters for risk analytics and risk modelling activities Identify possible scenarios and 	<ul style="list-style-type: none"> Define organisation's risk analytics framework, policies and processes and objectives Develop key risk indicators for organisation 	

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			<ul style="list-style-type: none"> Analyse stress test results and/or risk models to identify, assess and report risks to relevant stakeholders Report possible impact of identified risks on organisation's risk exposure, risk profile business and/or environment Develop pricing and valuation models according to parameters to identify risks involved Propose possible risk response activities aligned to identified risks Facilitate risk response activities with organisational stakeholders 	<p>implementation strategies for scenario analyses and stress testing</p> <ul style="list-style-type: none"> Derive and report outcome of stress test results analyses Assess and report identified risk events and their impact to the organisation Identify and propose risk response activities Define appropriate data management initiatives Monitor risk analytics activities and propose improvement initiatives to mitigate risk Propose valuation and pricing for products and services based on models 	<ul style="list-style-type: none"> Define forward looking scenarios for stress testing and scenario analyses Regularly report risk analytic activities and findings to senior management Propose and deploy appropriate risk controls to ensure compliance and manage risk exposure Align risk analytics activities with enterprise risk management approaches Design and prepare crisis management and business continuity approaches Advise organisational stakeholders on overall risk appetite and risk tolerance limits 	
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