

# RISK MANAGEMENT

The objective of Sembcorp Marine's Enterprise Risk Management (ERM) framework is to enable Management to deal effectively with uncertainties and the associated risks in pursuing business opportunities, thereby enhancing the resilience of the Group and its capacity to build value for stakeholders.

Enterprise risk management in Sembcorp Marine aligns strategy with the Group's risk appetite, and does the following: identifies and manages multiple and cross-functional risks; enhances risk response decisions; and mitigates financial and non-financial risks.

## RISK OVERSIGHT & GOVERNANCE STRUCTURE

Sembcorp Marine's Board of Directors have a holistic view of risks. They oversee the Group's risk-taking activities and hold Management accountable for adhering to the risk governance framework. The Board sets the desired tone from the top, which is cascaded across the Group through policies and procedures. With their diverse backgrounds, specialised

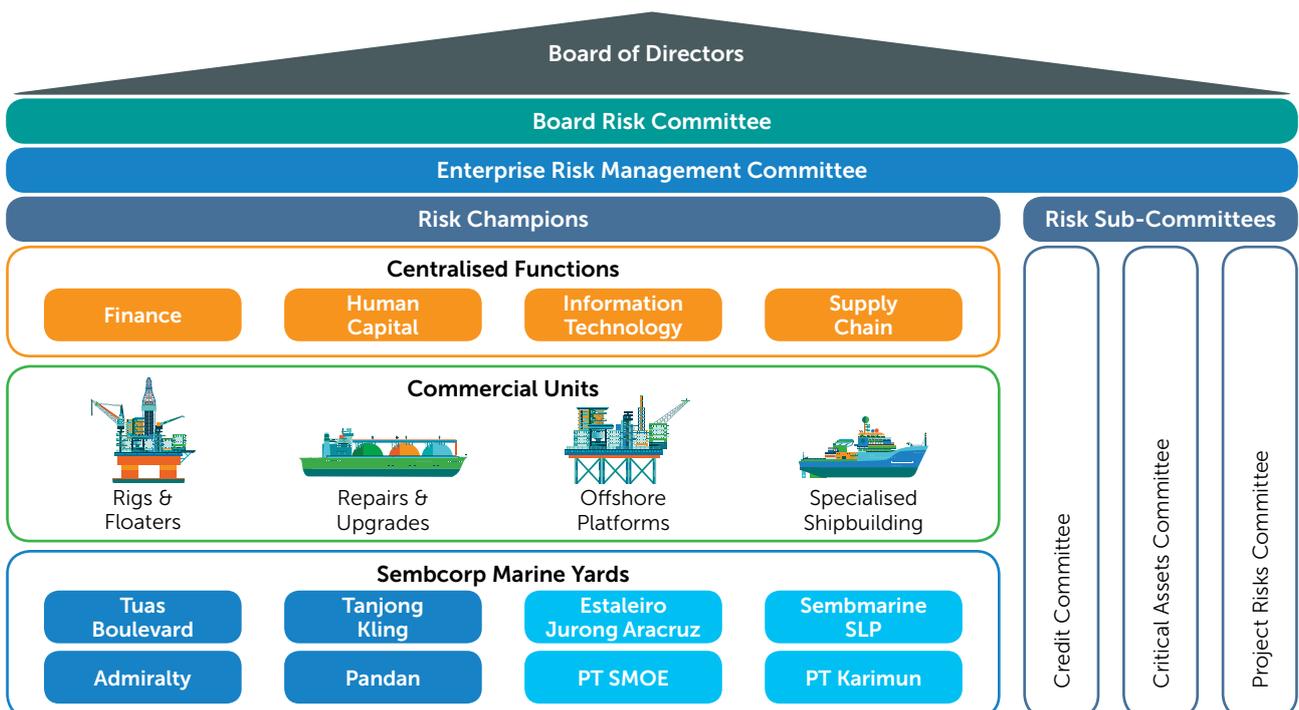
expertise and deep understanding of the Group's industry, the Directors bring unique experiences to the table, help ensure Management has identified all relevant risks, and exercise sound independent judgement to question, probe and challenge recommendations and decisions made by Management.

The **Board Risk Committee (BRC)** supports and assists the Board to do the following:

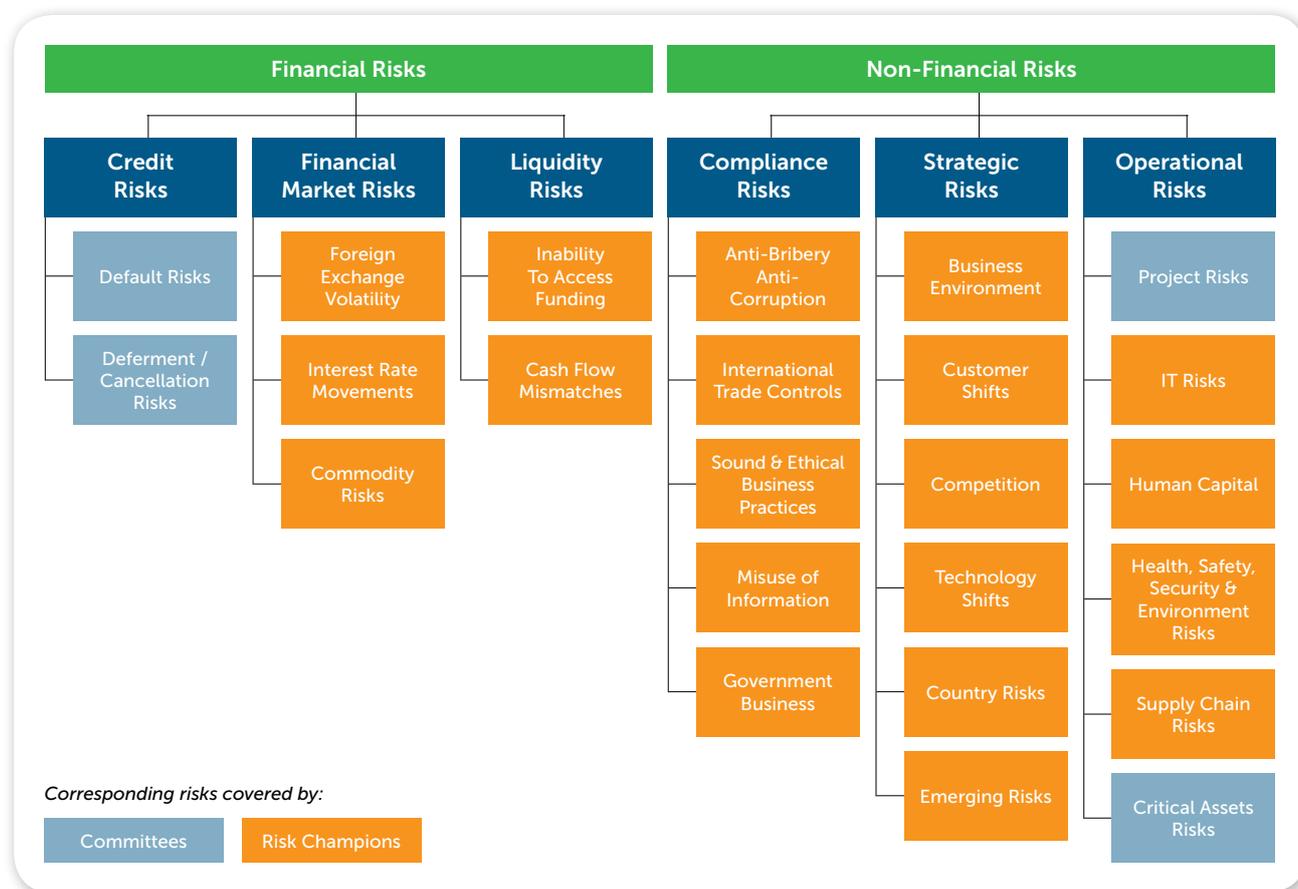
- Ensuring that Management has put in place adequate and effective risk management systems, frameworks, policies, procedures and processes;
- Reviewing and endorsing the Group's risk appetite and risk tolerance limits for approval by the Board;
- Reviewing risk reports from Management, which include the Group's risk profile, major risk exposures and material risk issues, as well as Management's responses and actions taken to monitor and control such exposures or issues. The BRC discusses with Management the state of the Group's ERM and provides oversight as required.

The responsibility for risk management and effective internal controls lies with the **Enterprise Risk Management Committee (ERMC)**. Chaired by Sembcorp Marine's President & Chief Executive Officer (CEO), the ERMC drives key risk initiatives and reviews risk issues across the Group. The President & CEO assesses the Group's ERM capabilities and effectiveness. This evaluation is continuous, wide-ranging and in-depth. Management considers how they are conducting their responsibilities in light of the framework and discusses ideas (in consultation with Internal Audit) for strengthening ERM. Task forces are formed and external expertise engaged whenever necessary to address specialised risk areas.

Supporting the ERMC are the **Risk Champions** in the Group's various units and the **Risk Sub-Committees for Credit, Critical Assets and Project Risks**. These Sub-Committees are chaired by senior management staff appointed by the President & CEO. Collectively, the Risk Champions and the Risk Sub-Committees oversee the various risk domains with clear assignment of responsibilities.



## Clear Definition of Risks and Assignment of Risk Ownership



Besides having risk oversight and establishing the risk governance structure, the Board defines and Management builds a healthy, forward-leaning risk culture so that Sembcorp Marine will be resilient and successful, and can create lasting value for stakeholders. The Group's risk culture entails:

- A distinct and consistent tone from the top in respect of risk-taking and avoidance;
- Clear accountability for and ownership of specific risks and risk segments;
- Candid and timely risk event reporting to relevant parties;
- Whistle-blowing;
- Communication of bad news without fear of blame or retaliation;
- An attitude of actively seeking to learn from mistakes and near misses;

- Appropriate risk-taking behaviours, while challenging inappropriate ones;
- Sufficient diversity of perspectives to ensure that the status quo is consistently and rigorously challenged; and
- Continual upgrade of risk management knowledge and skills.

### 3 LINES OF DEFENCE

The Group manages its risks through three lines of defence:

- Commercial Units, Centralised Functions and Yard Operations;
- Risk Governance; and
- Internal Audit

The three lines of defence operate in a collaborative way in structured forums and processes to bring together various perspectives and to

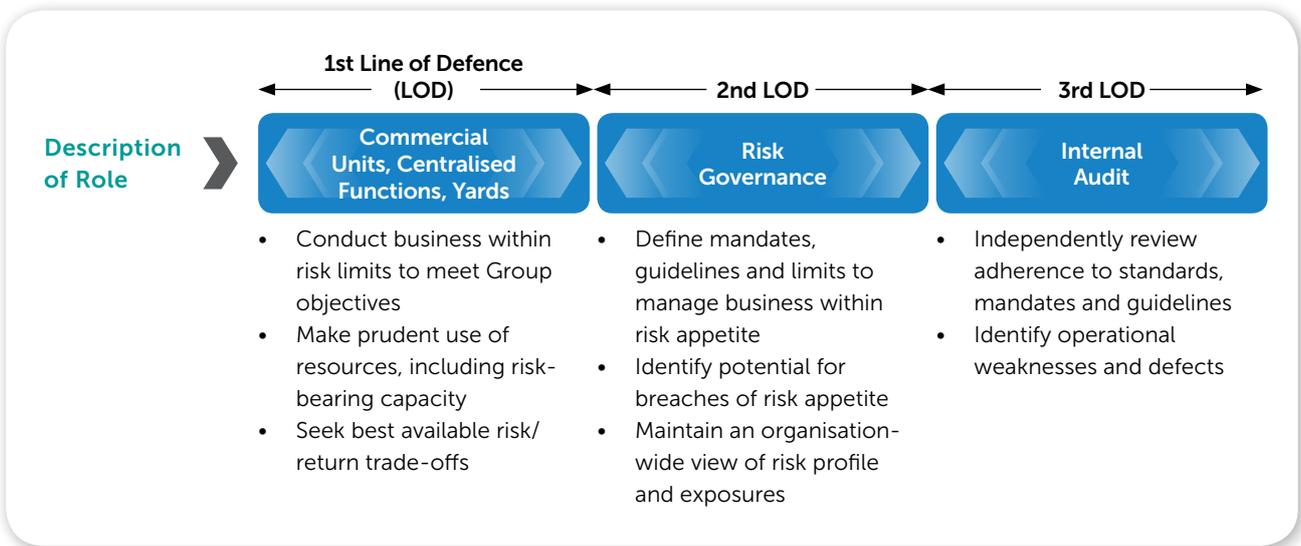
lead the Group towards outcomes are in stakeholders' interests and which create economic value.

### 1<sup>st</sup> line of defence: Commercial Units, Centralised Functions and Yard Operations

Each Sembcorp Marine Commercial Unit, Centralised Function and Yard Operation:

- Owns its risks and is responsible for assessing and managing its risks;
- Is responsible for establishing and operating controls to mitigate key risks, assessing internal controls and promoting a culture of compliance and control; and
- Is required to maintain appropriate staffing and implement appropriate procedures to fulfil its risk governance responsibilities.

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## 2<sup>nd</sup> line of defence: Risk Governance

The **Risk Management Office (RMO)** – under the **Chief Risk Officer (CRO)** – is a key pillar of Sembcorp Marine’s risk governance structure. The RMO, an independent partner of the business, manages risks in a manner consistent with the Group’s risk appetite. The office establishes policies and guidelines for risk assessments and risk management, and contributes to controls and tools to manage, measure and mitigate risks taken by the Group. In consultation with HR, Legal and other Centralised Functions, the RMO also:

- Promotes business conduct and activities that are consistent with the Group’s mission and value propositions;

- Protects the Group by overseeing Management, Commercial Units, Centralised Functions and Yard Operations in managing compliance with applicable laws, regulatory requirements, policies and other relevant standards of conduct; and
- Provides training and establishes tools, methodologies, processes and oversight for controls to foster a culture of compliance and control.

Sembcorp Marine’s goal is to embed an enterprise-wide compliance culture and risk management framework that identifies, measures, monitors, mitigates and controls compliance risks across the three lines of defence.

## 3<sup>rd</sup> line of defence: Internal Audit

The **Internal Audit (IA)** function independently reviews activities of the first two lines of defence based on a risk-based audit plan and methodology approved by the **Audit Committee (AC)**. IA audits the effectiveness of the Group’s governance and controls designed to mitigate exposure to risks and to enhance compliance and control. IA provides independent assurance to Sembcorp Marine’s Board, AC, Management and the regulators regarding the adequacy and effectiveness of the Group’s internal controls and risk management system.

The Group’s **Risk Governance and Assurance Framework (RGAF)** is an integral part of the overall risk assessment and assurance reporting system. The RGAF takes a risk-based approach to identifying key risk areas, corresponding processes and controls. This assessment is done to ensure adequate and effective controls are designed to mitigate the risks.

Control Self-Assessments (CSAs) are conducted by control owners on a quarterly basis, which reinforces the integrity of the RGAF. Through this programme, weaknesses, if any, in the control environment may be detected and reported to Management in a structured and formalised process. Corrective actions are then taken to strengthen the process and prevent

recurrences and lapses. In addition to providing assurance that the risk system and key controls are adequate and effective, the RGAF instils ownership among the process and control owners, promoting a strong sense of accountability.

In Sembcorp Marine’s 2018 RGAF report, assurance was given to

the Board that the Group's risk management system and internal controls are adequate and effective, considering the following factors:

- The RGAF coverage for risks identified in 2018 is adequate;
- Independent sources (i.e. internal and external auditors) have provided high level of assurance especially for preventive controls; and
- Management is satisfied with the effectiveness of preventive and detective controls.

## KEY RISKS & CONTROLS

Sembcorp Marine operates in a complex, industry-specific risk environment. The Group faces a myriad of risks, often in multiple locations, that affect different parts of the organisation concurrently. The nature and level of these risks can change constantly. Many risks cannot be controlled but must be managed.

Cognizant of this context, the Group identifies risks, addresses their severity, prioritises the risks and implements risk responses. It aims to anticipate risks earlier and more explicitly, while identifying and pursuing existing and new opportunities. The Group strives to avoid check-the-box conformity. The objective is to balance risk and reward successfully, so as to achieve its strategic and operational goals.

In 2018, the Group strived for continuous improvement, pushed towards holistic capabilities and broadened the executive risk mindset. Risk management programmes were better integrated and made more comprehensive – whether in assigning responsibilities, decision making, or clarifying ownership and accountability. When mitigating critical risks, developing risk metrics or improving risk management processes,

the Group was mindful of the need to be relevant, prudent and pragmatic.

### Credit Risks

Credit risk is the risk of loss resulting from decline in credit quality or failure of an obligor, counterparty or third party to honour its financial or contractual obligations. Exposure to vulnerable credits and concentration of credit risk can increase the potential for Sembcorp Marine to incur losses.

Customers are graded using Sembcorp Marine's credit rating tool, which utilises a credit rating methodology akin to those of international credit ratings agencies. Creditworthiness of major customers are tracked regularly on a credit ratings map which displays their credit grades vis-à-vis the Group's respective outstanding contract exposure to them. Detailed, updated financial information (especially on earnings, liquidity, cash flow, leverage and capitalisation) of major customers is recorded. More attention is given to those customers who have terminated contracts or failed to take delivery after technical acceptance. Tabs are kept on key market developments affecting the customers, and ERMC and BRC are alerted (together with action plans) should there be significant deterioration in customer ratings.

ERMC and BRC track credit and concentration quarterly using the Risk Appetite Statement dashboard.

The focus is on outstanding contract values with backend-loaded payment terms. Milestone or progressive payment modes are preferred. Security and other credit enhancements are requested for weaker credits. For assessing portfolio credit concentration, major customers are tiered according to their credit scores and grouped in relevant credit vulnerability bands.

Collections are also monitored.

The **Credit Committee** discuss outstanding receivables of customers and respective collection plans. The accounts are categorised according to delinquency status and collectability, of which ERMC is accordingly kept apprised. The same is communicated by the Finance risk champion (who is a Credit Committee member) to the **Finance Committee** so that Finance can augment the collection efforts, check adequacy of provisions where necessary, and inform AC as appropriate.

### Financial Market Risks

Market risk is the risk of loss arising from changes in the value of Sembcorp Marine's assets and liabilities resulting from changes in market variables such as interest rates, exchange rates, credit spreads or commodity prices.

Currency and interest rate volatilities are monitored by the Treasury department, which updates BRC regularly on key drivers affecting Sembcorp Marine's foreign currency (FX) exposures and key FX exposures relating to translation and market-to-market (MTM) transactions.

Project-level FX Value at Risk (VaR) and Group VaR limits are defined, tolerance limits specified, with follow-up activities for each tolerance band stipulated.

Limits per transaction, cumulative limits, tenor and corresponding approval authority have been established. Hedge timings, amounts, and respective approval authority levels have been approved by the Board and recorded in policy documents. FX hedging process and controls entail comprehensive checks and balances in every phase viz. planning; review; approval; execution.

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Overseeing this process is an **FX committee**, comprising Sembcorp Marine Director, Group Finance (Chairman), CRO, Chief Financial Officer, Head of Business Finance, and Head of Singapore Yard Operations.

A **Treasury Management System** has been rolled out. Its remit is to:

- Improve cash visibility;
- Centralise operations for Sembcorp Marine's in-house bank;
- Enhance financial risk management (e.g. template upload of major commercial project forecasts; aggregate FX exposures from projects and non-projects to support hedging decisions; and consolidate Sembcorp Marine debt exposure in a timely manner);
- Provide better governance and controls viz. automate accounting / GL entries for Treasury transactions;
- Segregate approval process for deal entry and settlement confirmation; and
- Provide system access for Risk and IA and automatically generate reports to support Group VaR monitoring.

Raw material price risks are managed by: sourcing globally for quality supply at competitive rates; locking in prices at favourable levels; and negotiating favourable prices with bulk purchases. These risks are monitored and managed by the Sembcorp Marine Procurement Outsourcing Risk Committee.

## Liquidity Risks

Liquidity risk is the risk that Sembcorp Marine will not be able to efficiently meet both expected and unexpected current and future cash flows and collateral needs without adversely affecting either daily operations or the Group's financial condition. This risk may be exacerbated by the Group's inability to access funding sources or to monetise assets, and the composition of liability funding and liquid assets.

As a global organisation, Sembcorp Marine's liquidity and sources of funding can be significantly and negatively impacted by factors it cannot control. These factors include general disruptions in the financial markets, governmental fiscal and monetary policies, regulatory changes or negative investor perceptions of Sembcorp Marine's creditworthiness.

In addition, the Group's costs to obtain and access funding are directly related to its credit spreads. Changes in credit spreads constantly occur and are market-driven (by both external market factors and factors specific to Sembcorp Marine) and can be volatile.

The Group's liquidity position is monitored regularly at Finance Committee, Management and Board meetings. During BRC meetings in particular, Sembcorp Marine's debt maturity profile, refinancing and new facilities are discussed, together with the metrics and tolerance limits for Finance on the Risk Appetite Statement dashboard.

To enhance liquidity, the Group strives to monetise completed projects. It negotiates milestone payments for existing contracts and focuses on delivery as well as expediting achievement of billing milestones so as to collect payments from existing projects. The Group expedites settlement and collection of project variation orders. It controls costs to achieve better project margins.

The Group extends market reach to new customers and oil companies. It maintains good relationships with financial institutions and banks to ensure that sufficient credit lines are available for working capital and to meet financial obligations. The Group also tracks all loan covenants to ensure no default.

## Compliance Risks

Compliance risk is the risk arising from the violation of, or non-conformance with, local or cross-border laws, rules and regulations. Compliance risk includes Conduct risk, which is the risk that Sembcorp Marine's employees or business partners may (intentionally or through negligence) harm stakeholders as well as the Group.

Extensive compliance requirements can result in increased reputational and legal risks. Failure to comply with regulations and requirements can result in enforcement and/or regulatory proceedings. Ongoing implementation of regulatory changes and increasing compliance requirements can increase Sembcorp Marine's compliance costs.

The primary goals of Sembcorp Marine's compliance risk management are to:

- Maintain a framework that facilitates enterprise-wide compliance with local and cross-border laws, rules or regulations;
- Ensure that the Group's internal policies and procedures, and applicable standards of conduct are observed;
- Drive and embed a risk culture of compliance, control and ethical conduct throughout the Group.

To anticipate, mitigate and control compliance risks, the Group adopts the following process:

- Communicate a strong culture of compliance, control and ethical conduct;
- Identify compliance risks (viz. anti-money laundering, anti-bribery & anti-corruption, counter-terrorism financing, politically exposed person, crimes and others);
- Stipulate risk assessments required and sets the standards for these requirements;

- Identify regulatory changes, as well as assess and address the impact;
- Challenge the 1<sup>st</sup> line of defence in their assessment and management of compliance risks;
- Perform compliance assurance activities to oversee adherence to applicable requirements;
- Provide policies, procedures and other documentation that set the standards for employees and business partners, and oversee the application of those standards;
- Provide training to support effective execution of roles and responsibilities relating to the identification, control, reporting and escalation of matters linked to compliance risks;
- Inform the Board and designated committees on the effectiveness of the processes and standards implemented to manage compliance risks; and
- Escalate to the Board any actual or likely violation of law, regulation, policy or significant compliance risk, and take reasonable action to see that the matter is appropriately identified, tracked and resolved, including the issuance of corrective action plans.

The Group's Risk Champions serve as the main Compliance interfaces between their respective domains and ERMC. The various Yard Heads, Commercial Units and Centralised Functions (to whom these Champions report directly) continue to be accountable for compliance with applicable regulations, policies and procedures that are within their remit. The Heads regularly furnish compliance declarations. In 2018, the CRO was the "go-to" person on the status of Group compliance as RMO receives the compliance assurances and maintains the Group's **Compliance Register**.

The Sembcorp Marine **Enterprise Compliance Programme** was initiated in 2018. The goal is for Enterprise

Compliance to be a competitive advantage for the Group's long-term sustainability in an increasingly complex global regulatory environment. The Programme is based on the principles of Accountability, Transparency, Integrity and Speed. It comprises three building blocks and eight component pieces viz:

- Set-up (governance leadership; roles, policies & procedures; and growth);
- Engagement (Employee engagement and stakeholder engagement);
- Risk management process (reporting and escalation);
- Compliance risk assessment; monitoring, testing and remediation).

The principles adopted are consistent with ISO 19600:2014, ISO 37001:2016; COSO Frameworks, OCEG – Governance, Risk, Compliance; Monetary Authority of Singapore Code of Corporate Governance; a resource guide to the US Foreign Corrupt Practices Act; the UK Bribery Act 2010 – Guidance; ICC Rules on Combating Corruption; as well as Good Practice Guidance on Internal Controls, Ethics and Compliance.

As part of Sembcorp Marine's Enterprise Compliance Programme, risk management for business partners and 3<sup>rd</sup> party representatives has been enhanced, with the following four due diligence Critical-to-Quality (CTQ) considerations:

- Returns that are commensurate with respective risk levels;
- Avoidance of excessive efforts or costs;
- Understanding and practices aligned across all functions; and
- Efforts congruent with Sembcorp Marine's sustainability agenda.

Effective immediately are: documented screening for business partners; obtaining declaration forms from suppliers; completion of due

diligence checklist and questionnaire; and communication of **Code of Business Conduct** to business partners.

In the pipeline are: embedding compliance statements in all purchase orders, work orders and contracts; requiring business partners to complete self-assessment cum disclosure form; and on-site audits, where required.

Other key activities in 2018 relating to compliance risk management include the following:

- External legal counsel was instructed to review Sembcorp Marine's processes governing contracts with third-party representatives, and in particular, with ship brokers and marketing agents.
- With heightened focus on third-party representatives, and with EU General Data Protection Act effective in May 2018, the existing **Guidebook for Sembcorp Marine Code of Business Conduct** was enhanced with a new section on correct handling of third-party representatives. Information protection and data integrity was elaborated. The latest version has 14 themes and 40 maxims. A suite of at least 25 policies and procedures underpin Sembcorp Marine's Code of Business Conduct. The Guidebook has been translated into Portuguese, Bahasa Indonesia and Chinese. Articulating the motto "Performing with Integrity", it is an instrument of self-regulation as well as a communication tool.
- To infuse compliance awareness throughout the organisation, Risk and Internal Audit conducted 18 training sessions on the Guidebook for Sembcorp Marine Code of Business Conduct for more than 1,000 yard employees.

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- Anti-bribery & anti-corruption e-Learning was launched. It was also a mandatory requirement in the orientation programme for new hires.
- A Sembcorp Marine **Personal Data Protection Officer (PDPO)** was appointed, with the responsibility of briefing ERM and BRC on Sembcorp Marine's obligations in respect of collection, use and disclosure of personal data. The PDPO's remit also covers accountability to individuals and care of personal data; as well as the Group's personal data protection framework encompassing governance structure, policies, personal data inventory, training and external communication.
- Regulatory compliance risk awareness sessions were held for Heads, Risk Champions and other nominated personnel.
- The scope of Sembcorp Marine's Compliance Register was expanded to include overseas yards. Regulatory risk reviews of top risks for Yards, Commercial Units and Centralised Functions were initiated. The Register details key regulatory obligations, corresponding policies and procedures that each department has for compliance.

## Strategic Risks

Strategic risk is the risk that Management's ability to execute the authorised business decision is impaired because it cannot adapt to changes in the operating environment, or due to other external factors.

From Sembcorp Marine's strategy perspective, sustained recovery in new offshore rig orders is unlikely to be imminent as the market is over-supplied. Competition in the repairs and upgrades segment remains intense. The Group has diversified into providing solutions in gas and renewables spaces that are subject to

different challenging market drivers, and where disruptive innovations may outpace the organisation's ability to compete well. While the Group expands its market footprint, increasingly complicated geopolitical shifts and heightened regulatory scrutiny potentially create complex enterprise-wide risk events.

Sembcorp Marine's senior management, led by the President & CEO, is responsible for the development and execution of the Group's strategy. Significant strategic actions are reviewed and approved by (or notified to) the Board. The Board of Directors hold an annual strategy meeting and receive presentations at regular meetings in order to monitor Management's execution of Sembcorp Marine's strategy. At the business level, Heads of Commercial Units are accountable for the execution of the Group-wide strategy, including decisions on new business and products.

Strategic risk is monitored through various mechanisms, including regular updates to senior management and the Board on performance against operating plan, and regular business reviews between the President & CEO and the Executive Committee.

ERM and BRC use the **Risk Appetite Statement** dashboard to monitor country-risk exposures. Any deviation from tolerable limits is thoroughly investigated. Board and senior management evaluate investments and projects in medium and high-risk jurisdictions, and ensure adequate safeguards are in place.

The Risk Appetite Statements, metrics and tolerance limits (with corresponding control measures and corrective actions) are reviewed regularly, and recalibrated where necessary to ensure an acceptable balance between risk-taking and optimising returns.

Additionally, in consultation with the Board, Management summarises Sembcorp Marine's top 10 strategic risks on a heat map. The probability and materiality of each strategic risk are assessed. Management is responsible for reducing the gross level of each risk to the target net level, by implementing the agreed mitigants and controls. The heat map is reviewed by BRC regularly.

## Operational Risks

In Sembcorp Marine's ERM framework, Operations encompass Project Management, IT, Human Capital, HSSE, Supply Chain and Critical Assets. Operational risk is the risk of loss resulting from inadequate or failed internal processes for any of the above-mentioned six domains.

As discussed in an earlier section, Sembcorp Marine has established a managers control assessment process to help managers self-assess significant operational risks and key controls; and to identify and address weaknesses in the design and/or operating effectiveness of internal controls. These controls include: implementing processes for early problem recognition and timely escalation; producing comprehensive operational risk reporting; and ensuring that sufficient resources are available to actively improve the operational risk environment and mitigate emerging risks.

Specific committees have oversight of operational risks in each of the six domains. The duties of these committees include managing respective operational risk exposures to be consistent with Sembcorp Marine's risk appetite; and ensuring that actions are taken to address any root cause of operational loss in their domains.

Information about the domains' key operational risks and control environment is reported regularly (via

Top Risks profiles and RGAF report) to ERM and BRC. In 2018, the RGAF register was improved to better align with the top risks reported by the domains.

The sections below highlight how risks are managed (apart from using RGAF and CSAs) in the respective domains.

### Project Risks

To minimise project delivery delays and cost-overruns, Sembcorp Marine ensures that work processes are well understood at the outset so as to pre-empt working with incomplete, ambiguous or inaccurate requirements. The Group conducts periodic reviews to ensure that each project's work progress adheres to its planned schedule, resources are allocated for key deliveries, and allocation is optimised by redeploying under-utilised assets and resources. Training is conducted and investments made in modern equipment and technology to improve operational efficiency and effectiveness. Actual project costs are controlled in order to achieve target contribution.

In 2018, a cross-functional team (with guidance from the President & CEO) tabulated exposure to critical project liabilities for every key on-going project. High probability or high impact triggers were identified, the probability of those triggers being activated was assessed, and corresponding operational and financial mitigation articulated. Management presented the table to BRC and it has since become a compulsory page in Sembcorp Marine's board approval paper template.

In 2018, Management and BRC had an in-depth discussion on how to minimise residual exposure to the limited liabilities as well as to the uncapped liabilities of Sembcorp Marine projects. Management articulated four imperatives (based on

different scenarios) when managing project contractual liability exposure, and further listed seven sequential steps to minimise residual exposure.

The first three fundamental 'core defence' steps entail: precise execution of all operational mitigations; careful management of liabilities excluded from total cumulative liability as well as terms and conditions of remedies stated in contracts; and capping financial loss by negotiating Total Cumulative Liability limits and limits for other sub-liabilities to as low as possible.

The fourth, fifth, sixth and seventh steps involve: sharing liabilities; including contingencies in project costing; factoring in risk premium; and checking adequacy of existing Group Comprehensive General Liability policy.

Project teams have since been guided by this paradigm as they seek to minimise project residual exposure.

The progress of ongoing projects is reviewed at least quarterly. The **Project Risk Committee** tracks variances in all applicable project phases (i.e. engineering, procurement, construction and commissioning). The BRC is apprised of material variances (if any) during quarterly reviews of the Risk Appetite Statement dashboard. Mitigation plans are required where there are material negative variances of actual vs planned budget. Potential liquidated damage exposure and foreseeable loss are estimated. These actions reinforce discipline in project management.

### IT Risks

Sembcorp Marine's and third-party computer systems and networks will continue to be subject to evolving and sophisticated cybersecurity risks. These cybersecurity risks could result in theft, loss, misuse or

disclosure of confidential client or customer information; damage to the Group's reputation; additional costs to Sembcorp Marine; as well as regulatory penalties, legal exposure and financial losses.

The Group devotes significant resources to implementing, maintaining, monitoring and regularly upgrading its systems and networks with measures such as intrusion detection, penetration tests and firewalls to safeguard critical business applications.

Sembcorp Marine engages certain actions to reduce exposure resulting from outsourcing, such as performing on-site security control assessments and limiting third-party access to the least privileged level necessary to perform job functions.

In order to achieve target Recovery Time Objective and Recovery Point Objective for critical system failures, the Group has put up disaster recovery plans for critical systems, which are tested and reviewed annually. The Group backs up data periodically and store them at alternate data centres.

Memos on IT security (e.g. relating to ransomware and phishing emails) are sent to all staff regularly. Employees are reminded of preventive measures, and are informed of on-going simulated phishing exercises. Employees who do not abide by Sembcorp Marine's cybersecurity rules are required to undergo additional training and disciplinary actions will be taken for repeated violations.

### Human Capital Risks

In order not to exceed the target turnover rate for management staff, and to achieve the desired succession index, Sembcorp Marine enhances its flexible benefits plan to improve staff welfare, allows job rotations among staff, and harmonises HR and

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employee welfare practices across the Group, where possible. The Group continuously improves its on-boarding process, as well as reviews and, where possible, takes corrective actions based on constructive feedback from exit interviews. It identifies key personnel and grooms high-potential employees for leadership succession.

The ERMC and BRC track metrics on Human Capital planning (in particular, turnover rate for management staff and succession index) when reviewing the dashboard for Sembcorp Marine Risk Appetite Statements.

## Health, Safety, Security and Environment (HSSE) Risks

With zero tolerance for fatalities and the target to minimise Workplace Injury Rate, Accident Severity Rate and Accident Frequency Rate, the Group has implemented the following Sembcorp Marine Workplace Safety and Health (WSH) strategic thrusts (which are aligned with WSH 2018 and WSH 2018 Plus strategies):

- Continuous enhancement of Health, Safety and Environment (HSE) competencies and capabilities;
- Improvement in risk and safety management systems;
- Building up commitment and leadership towards collective WSH culture; and
- Involvement and support from stakeholders to develop a strong partnership and foster a positive HSE culture.

HSE performance indicators (which are based on International Association of Oil & Gas Producers standards and Singapore WSH standards) are reviewed with Management and the Board regularly. Various HSE programmes are organised to instil HSE awareness in the workforce, along with risk intervention programmes for identified key risks.

The Group conducts on-site inspections, walkabouts and audits to identify all potential risks and hazards. It improves the Sembcorp Marine HSE management system by benchmarking the Group's HSE policy and procedures against applicable legal regulations and other industry best practices.

Sembcorp Marine's President & CEO has made an HSSE pledge which includes cultivating strong HSSE culture through leadership commitment; empowering all personnel to exercise Stop-Work Authority; a zero harm goal towards people, property and environment; as well as walking the ground.

The Head of HSE briefed BRC on description of incidents and investigation findings (including site observations, accounts of witnesses, most probable causes and corrective actions). HSE department performs root cause analysis and tracks incidents, near misses and loss events to analyse and address root causes of failures and prevent their recurrence.

## Supply Chain Risks

Supply chain risk is the threat to the continuity and profitability of the supply chain. Threats include cost volatility, material shortages, supplier financial issues and failures, and natural and man-made disasters.

The Group requires Procurement staff to adhere to proper integrity standards and be accountable and transparent in all their dealings. Procedures are in place to ensure proper transaction documentation, good procurement practices, ethical behaviour and open and fair competition.

The Group qualifies vendors to ensure a portfolio of best-in-class vendors is available for use. These vendors are qualified based on their company profiles, financial standing, technical capabilities and expertise.

Key vendors' performance is reviewed annually. Vendors are also required to understand the Supplier Code of Conduct and declare their compliance with the Group's Code of Business Conduct, thus ensuring an ecosystem of ethical business practices.

Purchase orders and procurement contracts are structured to promote effective and efficient administration during execution. Purchase orders or purchase contracts are issued in a timely manner to secure the timely delivery of goods. To safeguard its interests, the Group has adequate terms and conditions in its purchase orders and contracts. There are also effective controls to ensure that purchase terms and conditions are negotiated in conformity with the Group's procurement policy and procedures.

In 2018, the **Sembcorp Marine Supplier Code of Conduct** was rolled out. It retains the crux of the Sembcorp Marine Code of Business Conduct and is tailored to emphasise compliance themes pertinent to suppliers, including: Ethics; Conflict of Interest; Human Rights & Labour; Environmental Responsibility; Conflict Materials; HSE; Environmental Sustainability; Data Protection; and Export Controls/Sanctions. The Supplier Code of Conduct is available on the Sembcorp Marine website. Vendors and third-party representatives are informed about the Code.

## Critical Assets Risks

Sembcorp Marine ensures that its current systems, processes and controls are adequate and effective in procurement, construction, installation, operation, maintenance and certification of the Group's critical assets. It identifies, establishes and implements best practices and guidelines for the management of these assets.

Sembcorp Marine promotes group-wide sharing of information and discussion concerning the quality,

reliability and other material issues of equipment and machinery commonly used in the industry, including case studies of critical asset failures and near misses.

Insurance is also a key mitigation for financial losses arising from operational risks (and other risk areas, where applicable). Sembcorp Marine has procured insurances for all aspects of the Group's business:

- Relating to projects, as the Group's exposure is largely during the construction and operational stages, it has Construction All Risk policy for the former and Operational Policy for the latter.
- Additionally, the Comprehensive General Liability Policy that Sembcorp Marine has procured also provides (to some extent) liability cover during the construction period, and the Third-Party Liability Policy provides cover during the operational period.

Sembcorp Marine recognises that Insurance is not a cure-all and is cognizant of the types of liabilities and indemnities that are insurable; those that are insurable to a limited extent; and those not insurable. Critical assets are also covered by insurance to hedge against unexpected losses and downtime. In addition, insurance is procured for identified personnel to mitigate key-man risks. The Group uses existing insurances as a means of risk transfer, and will procure more insurances where necessary and cost-effective, or required by contractual obligations or legislation.

## **EFFECTIVE RISK MANAGEMENT – A COMPETITIVE ADVANTAGE**

Business volatility has increased. Risks are more complex and widespread. The above capabilities inherent in Sembcorp Marine's ERM framework help Management:

- Achieve the Group's performance targets and prevent loss of resources;
- Ensure effective reporting and compliance with laws and regulations;
- Avoid damage to the Sembcorp Marine's reputation and associated consequences; and
- Avoid pitfalls and surprises as the Group strives for resilience and value creation.

Sembcorp Marine's ERM framework is a critical business driver and a source of sustained growth and long-term competitive advantage for the Group.



**OUR**

# OPERATIONS

**EXPANDING OUR  
OPERATIONS FOR  
SUSTAINABLE  
GROWTH**



*Sembcorp Marine's new corporate building*

**SOLAR ROOF**

**STEEL FABRICATION  
WORKSHOP**

**TUAS  
BOULEVARD  
YARD PHASE 3A  
DEVELOPMENT**



## Continuous development at Sembcorp Marine Tuas Boulevard Yard

Sembcorp Marine employees will move into a new corporate office building at Tuas Boulevard Yard in 1H2019.

The Group's flagship production centre will also complete its 40.2-hectare Phase 3A development in early 2019, bringing on board a raft of new facilities. These include a 2-storey warehouse; a quay with 9m-12m draft; a robotic welding shop; mobile shelters; blasting and painting chambers; fabrication workshops; gantry cranes; and reinforced open areas for block pre-erection as well as block erection and assembly work.

Besides expanding its production capacity, Tuas Boulevard Yard is also improving its environmental footprint with a newly installed solar rooftop and digital energy management system. Generating up to 5,380MWh of green power annually – equivalent to reducing 2,500 tonnes of carbon emissions per year – the solar rooftop and energy management system will effectively lower by 30% the amount of grid-supplied electricity consumed at the yard's steel fabrication workshop during peak load.