

Risk Management

We undertake only appropriate and well-considered risks, taking into account the impact to our business, stakeholders, and long-term corporate sustainability.

Keppel adopts a balanced approach to risk management to optimise returns while considering their impact on corporate sustainability. Managing risks effectively is an integral part of the way in which we develop and execute our business strategies. It is grounded in our operating principles and belief that a balanced risk-reward methodology is the optimal approach. This applies to all aspects of our business, and particularly, our commitment to environmental, social and governance issues and our commitment to deliver long-term value to our stakeholders.

Our Risk-Centric Culture and Enterprise Risk Management (ERM) Framework enables the Group to respond to the dynamic economic environment, evolving business demands, as well as to seize new business opportunities.

Risk-Centric Culture

Mindsets and attitudes are key to effective risk management.

Enterprise Risk Management Framework

Relevant and material risk issues are surfaced for discussion with the Board Risk Committee (BRC) and the Board to keep them apprised in a timely manner.

Through the BRC, the Board advises management in formulating and implementing the risk management framework, policies and guidelines.

The terms of reference for the BRC are disclosed on page 109 of this report. The Board has set out three risk tolerance guiding principles to determine the nature and extent of material risks which the Board is prepared to take in achieving the Group's strategic objectives.

These principles are:

1. Risk taken should be carefully evaluated, commensurate with rewards and be in line with the Group's core strengths and strategic objectives;
2. No risk arising from a single area of operation, investment or undertaking should be so huge as to endanger the entire Group; and
3. The Group does not condone safety breaches or lapses, non-compliance with laws and regulations, as well as acts such as fraud, bribery and corruption.

Keppel's risk governance framework, set out on pages 99 to 104 under Principle 9 (Risk Management and Internal Controls), allows the Board and management to

determine the adequacy and effectiveness of the Group's risk management system. Along with our shifting business landscapes, the Group is cognisant of the dynamic environment in which it operates. We constantly enhance the framework and systems where necessary, to ensure risk management remains an integral part of our daily decision-making process and operations.

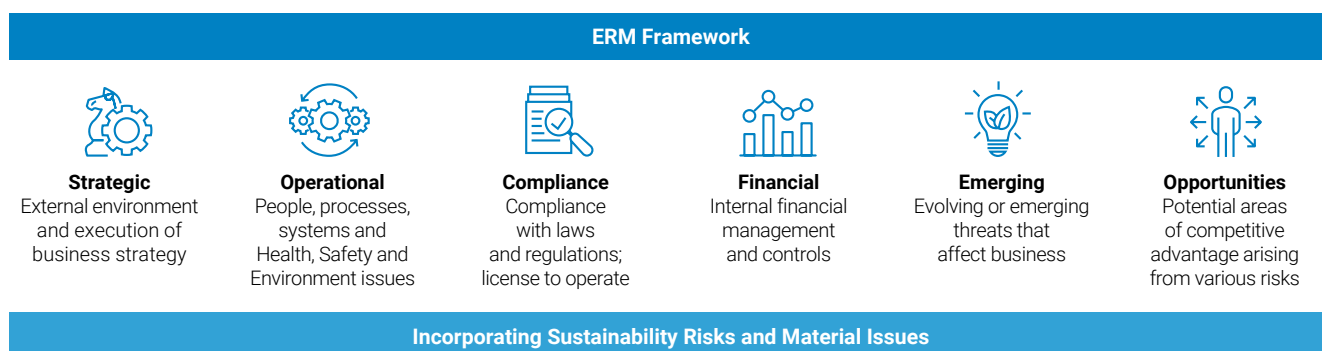
Keppel's ERM framework, a component of Keppel's System of Management Controls, provides the Group with a systematic approach to identify and manage risks. It outlines the requirement for each business unit (BU) to recognise key risk areas affecting its operations and to classify the impact and likelihood of these risks in a register for prioritisation and management. The ERM framework also establishes the reporting structure, monitoring mechanisms, processes and tools used, as well as any policies, standards or limits to be applied in managing key risk areas.

Keppel's ERM framework is also constantly enhanced to ensure it remains relevant in our operating environment and where required, is tailored to the requirements of each BU. The framework takes reference from the Singapore Code of Corporate Governance, the COSO Enterprise Risk Management – Integrated Framework, ISO 22301:2019, ISO 31000:2018 and the Board Risk Committee Guide published by the Singapore Institute of Directors.

Management and risk teams across BUs closely drive and coordinate Group-wide activities and initiatives under the ERM framework. These are



Figure 1



facilitated by regular meetings on policies or standards, or to ensure that pertinent risks are identified, assessed and mitigated in a timely manner. Beyond operational activities, we continually improve our risk processes taking reference from industry developments and best practices.

The key risks identified for FY 2022 encapsulate both existing business activities and the transformation and growth initiatives under Vision 2030. We are committed to addressing these risks in line with our philosophy of undertaking only appropriate and well-considered risks to optimise returns in a balanced and holistic manner, with an objective to deliver sustainable long-term value to our stakeholders.

Strategic Risks

Market & Competition

The major drivers of the Group's strategic risk include market forces, evolving competition, changing customer demands, and disruptive technology. The Group is also exposed to other external factors like volatility in the global economy such as rising interest rates, inflation and volatility in global markets, and geopolitical tensions. Despite the many challenges faced by our businesses, the Group has adapted and continued to operate resiliently in 2022. We had proactively taken mitigating actions to adjust and adapt our strategies and responses. During the year, the Board and management stayed focused on the execution of Vision 2030. As the Group evolves to become a global asset manager and operator creating solutions for a sustainable future, we will continually refine and enhance our risk management framework to support our business and objectives.

Strategic Ventures, Investments & Divestments

The Group adopts a structured process for evaluating investment and divestment

decisions, including strategic ventures. These endeavours are monitored to ensure alignment with the Group's strategic intent, investment objectives and desired returns. Strategies are revised and updated, where required, in response to the changing business environment.

The Investment and Major Project Action Committee works closely with the Board to guide the Group in ensuring that any such risks taken are considered and controlled in a manner that exercises the spirit of enterprise and prudence, to earn the best risk-adjusted returns on invested capital across our businesses.

The evaluation of risks for strategic ventures involves rigorous due diligence, feasibility studies and sensitivity analyses of key assumptions or variables. Key factors considered include the project's alignment with the Group's strategy, financial viability, country-specific political and regulatory developments, contractual risk implications, as well as past lessons learnt. The Group's investment portfolios are constantly monitored to ensure that the performance of any such venture is on track to meet its strategic intent and returns.

Climate Change

The Group's climate change risk forms part of the material environmental, social and governance issues addressed by the Board and management. The Group supports the Task Force on Climate-related Financial Disclosures and has worked towards incorporating its recommendations in our reporting framework.

Sustainability is at the core of the Group's strategy with climate change risk reviewed and assessed within our ERM framework (Figure 1). The ERM framework guides the Group on the processes and methods applied in identifying, assessing and managing sustainability-related risks.

As part of climate change risk management, we continually assess both physical and transition risks for the Group and strengthen our organisational capabilities in response. In 2022, the Group commenced a climate change physical risk financial impact assessment as well as a qualitative assessment of climate-related transition risks. More details will be provided in our Sustainability Report 2022, which will be published in May 2023.

Customer & Stakeholder Experience

The Group operates in numerous geographies and has multiple customer touchpoints, including retail consumers in the telecommunications, retail electricity, e-commerce and gas businesses. Other stakeholders include our regulators, vendors, investors, partners, employees, and the communities in which we operate. We value Customer and Stakeholder Experience which have a direct bearing on trust and brand reputation. Hence, we consistently monitor our products and services for safety, quality and reliability. We continually review feedback and post-sales support, and commit ourselves to uphold personal data privacy, product safety and related matters including our responsiveness to inputs from all stakeholders.

Human Resources

We place a strong emphasis on attracting and developing a high-performing talent pool. To drive our new engines of growth under Vision 2030, we leverage both internal and external programmes to develop the necessary skillsets to enable Keppel's next phase of growth. This includes nurturing employees, maintaining good industrial relations and fostering conducive work environment. We are committed to strengthening succession planning and bench strength, as well as building and acquiring new organisational capabilities in line with our strategic objectives, whilst maintaining our status as an employer of choice.

Risk Management

We emphasise the importance of having a risk-centric mindset, and developing the ability to identify and assess risks, implement mitigating actions, and monitor residual risks in all employees. Keppel Leadership Institute helps to create this mindset by embedding risk management in its leadership courses.

Operational Risks Project Management

Risk management is an integral part of all projects from initiation to completion to facilitate early detection and proactive management of operational risks. We adopt a systematic risk assessment and monitoring process with special attention given to technically challenging and high-value projects, including greenfield developments, the deployment of new technology and/or operations in new geographies.

During project execution, regular reviews are conducted along with quality assurance programmes to address issues such as cost, schedule and quality. Project Key Risk Indicators are used as early warning signals to determine if intervention is required. We also conduct knowledge-sharing workshops to share best practices or lessons learnt across the Group. These risk management processes help ensure our project delivery is on time and within budget, without compromising on safety or quality, as well as regulatory and contractual obligations.

Health, Safety & Environment

Safety is a Keppel core value and we are committed to upholding the highest standards of safety in all aspects of our business operations. This translates into constant vigilance to foster a strong health, safety and environment (HSE) culture across the Group, particularly at the ground level where the risks are greatest.

The Group continues to focus on and emphasise the importance of staff health and safety by implementing appropriate processes and ensuring adherence to industry standards, regulations, or government guidelines to protect employees or other stakeholders from potential exposure to health or safety hazards. Efforts are made across BUs to ensure adherence to workplace health and safety precautions, such as the use of personal protective equipment and safety risk assessments prior to work commencing.

Keppel's Zero Fatality Strategy aligns High Impact Risk Activities standards across our global operations. This is achieved by enhancing the competency of employees performing safety-critical tasks,

strengthening operational controls, establishing Root Cause Analysis investigation standards across the Group, as well as deploying leading risk indicators/metrics to monitor HSE performance standards.

In 2022, Keppel won 11 Workplace Safety and Health (WSH) Awards for exemplary safety performance, implementation of robust HSE management systems and efforts to innovate solutions that improve HSE. Unfortunately, three fatalities occurred at a yard in Singapore. Keppel has investigated the incidents and implemented the necessary measures to prevent recurrence.

Environmental management is also a critical area of focus for the Group and all major operating sites globally are closely monitored for compliance with relevant local or global environmental standards, including protection of the environment and biodiversity.

Business & Operational Processes

The Group is connected by common shared services and platforms that promote operating efficiency, while enhancing productivity, compliance and controls. Where relevant, we have adopted ISO standards and certifications in major business areas to standardise processes and align with industry best practices. In addition, procedures relating to defect management, operations, project control and supply chain management are continually refined to improve the quality of our deliverables.

Taking a risk-based approach, we seek to improve digitalisation and automation in enhancing or optimising our processes. We also continually evaluate our procedures, policies and authority limits to ensure that they stay relevant.

Business Continuity

We are committed to Business Continuity Management (BCM) standards that equip us with the capability to respond effectively to business disruptions. We plan for contingencies in the event of major catastrophes occurring in our operating regions. This includes events such as natural disasters, fire, pandemics, terrorism and cyber-attacks, as well as the failure of critical equipment/systems and industrial accidents. We also continually monitor other potentially disruptive threats to our business operations and adapt our plans to ensure operational resilience.

The Group's Incident Reporting and Crisis Management operating standard guides us in the management of and response to major incidents, while our Business

Continuity Plans address post-event mitigation. These are coordinated by management and the Group BCM Steering Committee, which provide sponsorship, direction, and guidance to ensure a state of constant readiness-to-respond. We continually refine our capabilities in responding to major incidents or crises with the aim of safeguarding our people, assets, and stakeholders' interests, as well as Keppel's reputation.

We also recognise the significance of cyber threats as a potential cause of business disruption and maintain a Group Cyber Incident Response plan, which details our response and recovery protocols in the event of a cyber incident. The plan takes reference from local and international standards and Cyber Tabletop Exercises are conducted regularly to validate the effectiveness of these protocols.

Cyber Security, Data Protection and Technology

Technology, cyber security and data-related risks, including outsourced services, are a part of the Group's operational risks. We recognise the criticality of global cyber threats and have established technology and cyber governance structures and frameworks to address both general technology and cyber security controls, covering key areas such as business disruption, theft/loss of confidential data and data integrity.

The Group continually monitors its technology and cyber security related risks. The work involves the identification, assessment and management of risks within critical technology and data assets, applying leading industry guidelines where relevant, for example such as those by the Cyber Security Agency of Singapore. The Group also seeks to improve technology and cyber security standards and inculcate a culture of cyber awareness among employees. In 2022, Keppel Telecommunications & Transportation (KTT) discovered that an unidentified hacker (or hacker group) had accessed a server previously owned and used by KTT on which some old KTT files were stored. The incident was limited to data stored on the previously owned server and there has been no compromise of any of the IT systems of KTT and the data on KTT's IT systems remain secure. Immediate steps were taken to contain the incident and stop any further intrusions.

In 2022, the Group made progress on various initiatives to strengthen our technology and cyber security governance and controls through the refinement and alignment of our policies, processes and systems, as well as the consolidation of systems and servers. Training and assessment exercises were conducted

throughout the year to heighten employees' overall awareness of technology and cyber threats.

Relating to the integration and usage of technology, technical teams and other experts from across the Group enable us to keep abreast of evolving technology. Risk mitigation or responses are either calibrated at each BU or managed strategically at the Group with the assistance of Keppel Technology and Innovation, which assists in driving Group-wide adoption of new technology and innovation. The Keppel Technology Advisory Panel, comprising thought leaders and business veterans from key industries relevant to Keppel, also regularly advises the Group in areas of technological innovation. More information on the Group's technology and innovation management can be found on pages 26, 27, 44 and 45 of this report.

Compliance Risks

Laws, Regulations & Compliance

We closely monitor developments in relevant laws and regulations of countries where the Group operates to ensure regulatory compliance. We recognise that non-compliance with any law or regulation may have a detrimental effect to the Group in multiple areas such as financial and operational performance, or reputation. As such, we regularly stay updated on changes to laws and regulations to assess any exposures or risks effectively and expeditiously.

Significant regulatory risk areas, such as those relating to potential corruption, are regularly identified, surfaced to management and where applicable, further assessed by the Board. With respect to corruption, key risk areas include situations where external agents are appointed for business development.

We continually enhance our regulatory compliance policies and procedures to ensure that the Group maintains a high level of compliance and ethical standards in the way we conduct business. We have zero tolerance for fraud, bribery, corruption and any violation of laws and regulations.

In 2022, we continued to refine our regulatory compliance programme, update processes, deepen employee understanding, and ensure that compliance awareness and principles are well embedded in all activities. We also recognise the importance of sanctions risks owing to the escalation of trade and other sanctions in many countries. More details of our Compliance programme can be found on pages 122 to 124 of this report.

Financial Risks

Fraud, Misstatement of Financial Statements & Disclosures

We maintain a strong emphasis on ensuring that financial statements are accurate and presented fairly in accordance with applicable financial reporting standards and frameworks.

Regular external and internal audits are conducted to provide assurance on the accuracy of the financial statements and adequacy of the internal control framework supporting the statements. Where required, we leverage the expertise of the external auditors in the interpretation of financial reporting standards and changes to existing or new reporting requirements. We also conduct regular training and education programmes to enhance the capabilities of our finance managers across the Group.

Our system of internal controls is outlined in Keppel's System of Management Controls detailed in pages 100 to 101 of this report.

Financial Management

Financial risk management relates to the Group's ability to meet financial obligations and mitigate credit, liquidity, currency and interest rate risks. Details can be found on pages 200 to 211 of this report. In these areas, policies, processes and financial authority limits are reviewed regularly to ensure their adequacy in mitigating risks and to incorporate changes in the operating and control environment.

We are focused on financial discipline and seek to deploy our capital to earn the best risk-adjusted returns for our shareholders, while maintaining a strong balance sheet to seize new opportunities.

In 2022, as global economies continued to face pressure from macroeconomic challenges and global volatility, the Group maintained a proactive approach to liquidity management and performed stress tests to assess its exposure to volatility in currency and rising interest rates, with mitigating actions taken where required.

Our financial management procedures include the evaluation of counterparties and other related risks against pre-established internal guidelines. We conduct impact assessments and stress tests to gauge the Group's potential financial exposure to changing market situations. This enables informed decision making and the implementation of prompt mitigating actions. We also regularly monitor our asset concentration exposure in countries where we operate to ensure that our portfolio of assets, investments and businesses are diversified against the systemic risks of operating in a specific geography.

Proactive Management of Risks

Effective risk management is dynamic and encompasses the evaluation of both risks and opportunities. We recognise the need to effectively manage risks as an inherent part of business operations to optimise returns. We take a business-centric approach to managing risks and aligning business activities with risk considerations, and discuss issues in an open and transparent manner, to enable us to pursue optimal risk-return initiatives.

Our risk framework and processes continually evolve to ensure that they stay effective and relevant. This is dependent on our people and processes, and the Group's ability to remain vigilant to emerging risks and opportunities. Across the Group, we identify and review emerging risks at all levels throughout the year. Where relevant, these are escalated and discussed at various forums to determine any further actions and/or responses. We recognise that our systems and processes provide reasonable but not absolute assurance, and hence continuously look to adapt and improve to ensure that our ability to manage and respond to risks remains relevant and effective.