

## RISK MANAGEMENT

### WE UNDERTAKE ONLY APPROPRIATE AND WELL-CONSIDERED RISKS, CONSIDERING THEIR IMPACT TO OUR BUSINESS, STAKEHOLDERS, AND LONG-TERM CORPORATE SUSTAINABILITY.

Keppel adopts a balanced approach to risk management, undertaking only appropriate and well-considered risks to optimise business returns while considering their holistic impact on corporate sustainability. This approach stems from the philosophy of seeking sustainable growth opportunities and creating economic value by ensuring only appropriate and well-considered risks are assumed.

Risk management 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 and holistic risk-reward approach is key to corporate sustainability, particularly our commitment to key material issues relating to environmental, social and governance, and to delivering long-term value for our stakeholders.

Our Risk-Centric Culture and Enterprise Risk Management (ERM) Framework enables the Group to continue to respond effectively to the dynamic business environment and shifting business demands to seize new value-added opportunities for stakeholders. As a Group, we prudently seek new opportunities, innovation and revenue streams to safeguard shareholders' interests and the Group's assets.

#### RISK-CENTRIC CULTURE

Mindsets and attitudes are key to effective risk management. The Group fosters a risk-centric culture through several aspects.

#### ENTERPRISE RISK MANAGEMENT FRAMEWORK

Keppel's Board is responsible for risk governance and ensures that management maintains a sound system of risk management and internal controls.

Through the Board Risk Committee (BRC), the Board advises management in formulating and implementing the risk management framework, policies and guidelines. Significant risk issues are surfaced for discussion with the BRC and the Board to keep them apprised in a timely manner.

The terms of reference for the BRC are disclosed on pages 95 and 96 of this report. The Board has defined three risk tolerance guiding principles for the Group which determines the nature and extent of the significant risks which the Board is willing to take in achieving strategic objectives.

These principles are:

1. Risk taken should be carefully evaluated, and commensurate with rewards and 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.

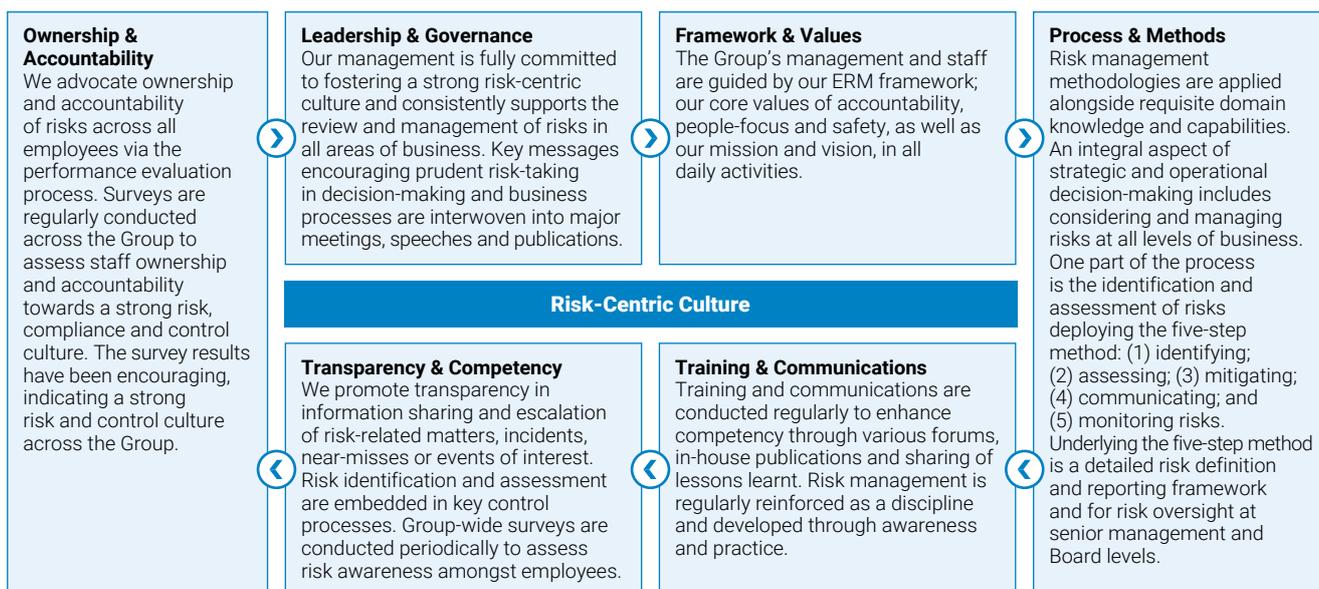
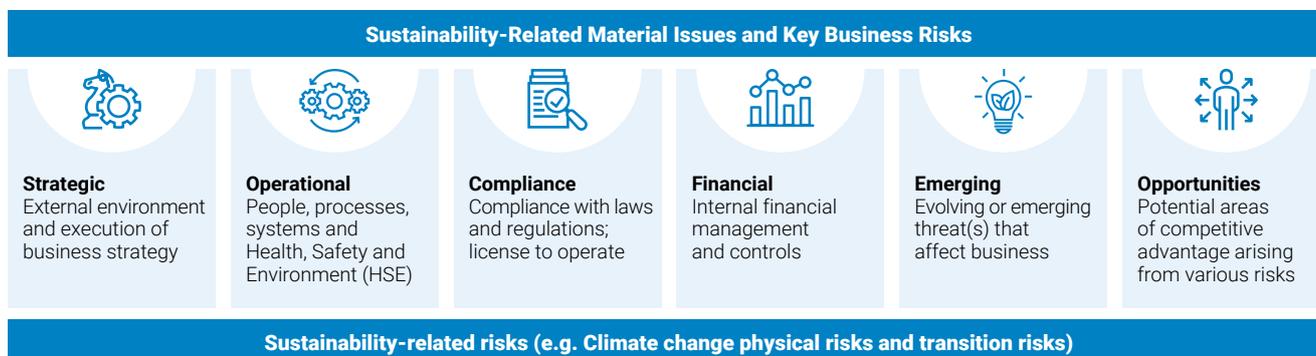


Figure 1:  
ERM FRAMEWORK INCORPORATING SUSTAINABILITY RISKS



Keppel's risk governance framework, set out on pages 88 to 92 under Principle 9 (Risk Management and Internal Controls), facilitates management and the BRC in determining the adequacy and effectiveness of the Group's risk management system.

As a Group, we are cognisant of the dynamic environment in which we operate. We constantly enhance the framework and systems where necessary, to ensure risk management remains an integral part of decision-making and operations.

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

Our ERM framework is constantly refined 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 22313, ISO 31000 and the Guidebook for Board Risk Committees.

Our Risk and Compliance Committee, comprising risk leads across BUs, drives and coordinates Group-wide activities and initiatives. The Committee's activities are facilitated by regular bilateral and BU-level meetings to ensure that pertinent risks are identified, assessed and mitigated in a timely manner.

We keep abreast of the latest developments and best practices through participation in industry seminars and interacting with peers and other subject-matter experts.

The below outlines what we have broadly identified as key risks for 2019. The period chosen follows our financial reporting year, and while we recognise that not all identified risks can be eliminated, we remain committed to addressing every risk as they arise and undertake only appropriate and well-considered risks to optimise returns in a balanced and holistic manner to deliver long-term value for our stakeholders.

#### STRATEGIC RISKS Market & Competition

A large part of the Group's strategic risks includes market driven forces, evolving competitive landscapes, changing customer demands and disruptive innovation. The Group remains vulnerable to other external factors including volatility in the global economy, implications of geopolitical developments, intense competition in core markets and disruptive technology. These risks receive constant high-level attention and strategy meetings are held across the Group to review business strategies, formulate responses and take pre-emptive action.

The BRC guides the Group in formulating and reviewing risk policies and principles. These policies and principles are subject to periodic reviews to ensure that they continue to support business objectives and are aligned to our risk tolerance levels, taking into consideration the prevailing business climate.

#### Sustainability and Climate Change

Sustainability covers a broad range of material issues, many of which have been identified and managed according to the Group's ERM framework. In addition, risks and opportunities relating to climate change have been recognised as

fundamental to the Group. These relate to physical and transitional risks stemming from climate change and environmental management, which present both risks and opportunities for the Group. We support the Taskforce on Climate-related Financial Disclosures, and are working towards incorporating its recommendations in our reporting framework. Details on the material issues can be found on pages 28 and 29 of this report.

A Sustainability Risk Framework (Figure 1), aligned to the ERM framework, guides the Group on the specific processes and methods applied in identifying, assessing and managing sustainability-related risks and opportunities. We are also committed to strengthening our organisational capabilities in responding to climate-related risks and opportunities. More details will be provided in our Sustainability Report, which will be published in May 2020.

#### Strategic Ventures, Investments & Divestments

We have an established process for evaluating investment and divestment decisions including strategic ventures. These activities are monitored to ensure that they are on track to meet the Group's strategic intent, investment objectives and returns, and where required, the need for timely recalibration of strategies in response to the changing business environment. These investment decisions are guided by Group-wide investment parameters.

Together with the Board, the Investment and Major Project Action Committee guides the Group in taking considered risks in a controlled manner, exercising the spirit of enterprise and prudence to earn the best risk-adjusted returns on invested capital across our businesses.

Investment risk assessment involves rigorous due diligence, feasibility studies and sensitivity analyses of key assumptions

## RISK MANAGEMENT

and variables. Some of the critical factors considered include alignment with Group strategy, financial viability, country-specific political and regulatory developments, contractual risk implications, as well as lessons learnt. We have defined the kinds of businesses that we will strictly avoid, those that we will maintain, and those which we will grow and expand, taking into account their respective environmental impacts. We will also be introducing an internal carbon price in the evaluation of all major investment decisions. The investment portfolio is constantly monitored to ensure that performance is on track to meet the Group's strategic intent and investment returns.

### Customer & Stakeholder Experience

We recognise the increasing profile of consumer risks given the Group's expansion into telecommunications and growing portfolios in the retail electricity, e-commerce and gas businesses. The key issues of consideration include areas such as brand trust and reputation, product/service quality/reliability, after-sales service/support, customer data privacy, product safety and other related matters such as customer responsiveness and the channel management across various platforms.

### Human Resources

We continue to maintain a strong emphasis on attracting and building a deep talent pool. This includes nurturing employees, maintaining good industrial relations and fostering a conducive work environment. We are focused on strengthening succession planning and bench strength, as well as building new organisational capabilities to drive business growth, whilst maintaining our status as an employer of choice.

In talent development programmes, we emphasise the importance of having a risk-centric mindset to inculcate the ability to identify and assess risks, develop and implement mitigating actions, and monitor residual risks. Keppel Leadership Institute helps to inculcate this mindset by embedding risk management in its key leadership courses.

## OPERATIONAL RISKS

### Project Management

From project initiation through to completion, risk management processes are an integral part of project management activities to facilitate early risk detection and proactive management. The Group adopts a systematic assessment and monitoring process to help manage key risks in projects. Attention is given to technically challenging and high-value projects, including greenfield developments and the deployment of new technology and/or operations in new geographies. Projects are managed in accordance with the respective country's environmental laws and labour practices.

During project execution, we conduct project reviews and quality assurance programmes to address issues involving cost, schedule and quality. Project Key Risk Indicators are used as early warning signals to determine if remedial actions are required. A Project Operational Set-up Guide detailing the key risk areas is also available for BUs. We also conduct knowledge-sharing workshops to share best practices and lessons learnt across the Group.

These processes help to ensure that projects are completed on time and within budget, without compromising on safety, quality and contract obligations.

### Health, Safety & Environment

Maintaining a high level of HSE standard is of paramount importance to the Group. We constantly strive to raise awareness and maintain vigilance to foster a strong HSE-centric culture across the Group, particularly at the ground level where the risks are greatest.

Key initiatives include a Zero Fatality Strategy with a roadmap focused on aligning Hazard Identification Risk Assessment standards across our global operations, enhancing competency of employees performing safety-critical tasks, strengthening operational controls, deploying Root Cause Analysis investigation standards across the Group, as well as developing more proactive and leading risk indicators/matrices to monitor HSE performance standards. The Group achieved zero fatalities across our global operations in 2019.

Environmental management is a major area of focus and key operating sites are closely monitored for compliance to environmental standards. In 2019, the Group clinched 18 awards at the Workplace Safety and Health (WSH) Awards for exemplary safety performances, implementation of strong WSH management systems, as well as efforts to create solutions that improve workplace safety. The Group also leverages technology to improve HSE processes and systems.

### Business & Operational Processes

We have established a common shared services platform which enables us to better manage costs while enhancing efficiency, productivity, compliance and controls.

Recognising the need to constantly harness technology, we have embarked on digitalisation initiatives and continue to take measured steps, applying a risk-based approach to optimise our processes.

We have adopted ISO standards and certifications in specific business areas to standardise our processes and keep up

with best practices. In addition, procedures relating to defect management, operations, project control and supply chain management continue to be refined to improve quality of deliverables. We conduct regular reviews of policies and authority limits to ensure that they remain relevant in meeting business needs.

### Business Continuity

We are committed to operational resilience with a robust Business Continuity Management (BCM) programme that seeks to equip us with the capability to respond effectively to business disruptions and to safeguard critical business functions from major risks. We are cognisant of the risks of natural disasters, pandemics, terrorism and cyber threats, as well as the failure of critical equipment/systems. We maintain a close watch and keep abreast of emerging threats.

The Group BCM Steering Committee provides sponsorship, direction and guidance to ensure that we maintain operational resilience and readiness against business disruptions to ensure that our business continuity plans remain current and relevant.

For coordinated escalation and management of major incidents, the Group Incident Reporting and Crisis Management operating standard was rolled out in 2019 to guide BUs on how they should evaluate and escalate major incidents to the Group, and how the Group Crisis Management team can effectively render assistance to affected BUs or manage/respond to major incidents directly. The Group Cyber Incident Response plan is also part of our crisis management approach which details response protocols to cyber incidents/threats. We continually evaluate our plans to gauge the effectiveness and timeliness of response.

During the year, the Group has also formalised the Business Psychological Readiness Programme, an initiative led by Temasek Foundation Cares. The initiative focuses on psychological support in the event of traumatic/adverse workplace events.

We continually extend and strengthen our capabilities in responding to major incidents/crises with the aim of safeguarding our people, assets and stakeholders' interests.

The full impact of the COVID-19 outbreak is still unfolding. We have implemented business continuity plans to minimise disruptions to our operations and supply chain, especially in our key markets of China and Singapore. As we continue to assess and respond to the evolving situation, we are proactively implementing measures to mitigate the impact.

As we deal with the economic impact of the COVID-19 outbreak, we are also focused on the well-being of our staff and stakeholders across our businesses. We have also taken a multi-pronged approach to assist those affected by COVID-19 in our communities.

### **Cyber Security & Data Protection**

As Keppel moves into a more technology-focused and data-driven era, we recognise the integral importance and concerns of cyber threats globally. Technology and data security risks and the related processes/services in all forms are an integral part of the Group's business risks. We have established a technology governance structure and security risk framework to address both general technology and data security controls, covering key areas such as cyber security, business disruption, theft/loss of confidential data and data integrity.

In 2019, we formalised and implemented a Technology and Data Risk Management standard which identifies, assesses and manages critical technology and data assets according to leading industry guidelines such as those given by the Cyber Security Agency of Singapore and the National Institute of Standards and Technology. The programme not only seeks to improve technology and data security standards but also to inculcate a culture of cyber hygiene in employees across the Group.

The Group has also embarked on various initiatives to continually strengthen our technology security, governance and controls through the refinement and alignment of our policies, processes and systems, as well as the consolidation of servers and storages. We work closely with industry professionals and consultants to enhance our policies and practices on end-user computing, safeguarding information, as well as security self-assessments to identify critical gaps.

In terms of innovations and emerging threats, our pool of dedicated Information Technology (IT) experts enable us to keep abreast of IT matters. They are assisted by Keppel Technology and Innovation which drives the adoption of new technology and innovation across the Group. Extensive training and assessment exercises have been conducted to heighten overall awareness of technology and data threats.

We have also taken steps to safeguard corporate data assets against the loss of availability of critical systems to ensure resilience against disruptions.

## **COMPLIANCE RISKS**

### **Laws, Regulations & Compliance**

Given the geographical diversity of our businesses, we closely monitor developments in laws and regulations of countries where the Group operates, to ensure that our businesses and operations comply with all relevant laws and regulations. We regularly engage with local government authorities and agencies to keep updated on changes to laws and regulations, ensuring that we can assess our exposures and risks effectively. We recognise that non-compliance with laws and regulations not only have significant financial impact but have potentially detrimental reputational impact on Keppel.

Significant risks issues, such as risks relating to corruption in all areas of operations within the Keppel Group where we have operational control, are surfaced by management and assessed by the Board. With respect to corruption, significant risks include areas where external agents are used for business development.

We are committed to enhancing our regulatory compliance policies and processes to ensure that the Group maintains a high level of compliance and ethical standards in the way in which we conduct our business. Our emphasis is clear and consistently reiterated. We have zero tolerance for fraud, bribery, corruption and violation of laws and regulations.

In 2019, we continued to make improvements to our regulatory compliance programme, ensuring that compliance awareness and principles are further entrenched in all our activities. More details can be found on page 90 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 financial statements and adequacy of the internal control framework supporting the statements. Where required, we leverage the expertise of engaged auditors in the interpretation of financial reporting standards and changes.

We conduct regular training and education programmes to enhance competency of the Group's finance managers.

Keppel's System of Management Controls framework outlines our internal control and risk management processes and procedures. For more details, please refer to page 89 of this report.

### **Financial Management**

Financial risk management relates to our ability to meet financial obligations and mitigate credit, liquidity, currency and interest rate risks. Details can be found on page 68 of this report. Policies and financial authority limits are reviewed regularly to incorporate changes in the operating and control environment.

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

Our 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, to enable informed decision-making and the implementation of prompt mitigating actions. We also regularly monitor our asset concentration exposure in countries where we have a presence to ensure that our portfolio of assets, investments and businesses are diversified against the systemic risks of operating in a specific geography.

### **Proactive Risk Management**

Effective risk management requires a dynamic approach. We recognise the need to continually evolve our framework and processes to ensure our risk identification, assessment, mitigation, communication and monitoring remains effective. However, much of these depend on our ability to remain vigilant against evolving or emerging threats that may affect our different businesses. Our BU risk teams identify, discuss and analyse emerging risks which may have an impact on the Group's activities in meetings throughout the year. Where applicable, these are escalated for discussion and consideration at the various governance committees for review.

Through close collaboration with stakeholders and constant vigilance, the Group continues to proactively assess our risks so as to respond effectively. We constantly review our systems and processes to ensure that our ability to manage and respond to threats remains adequate and effective.