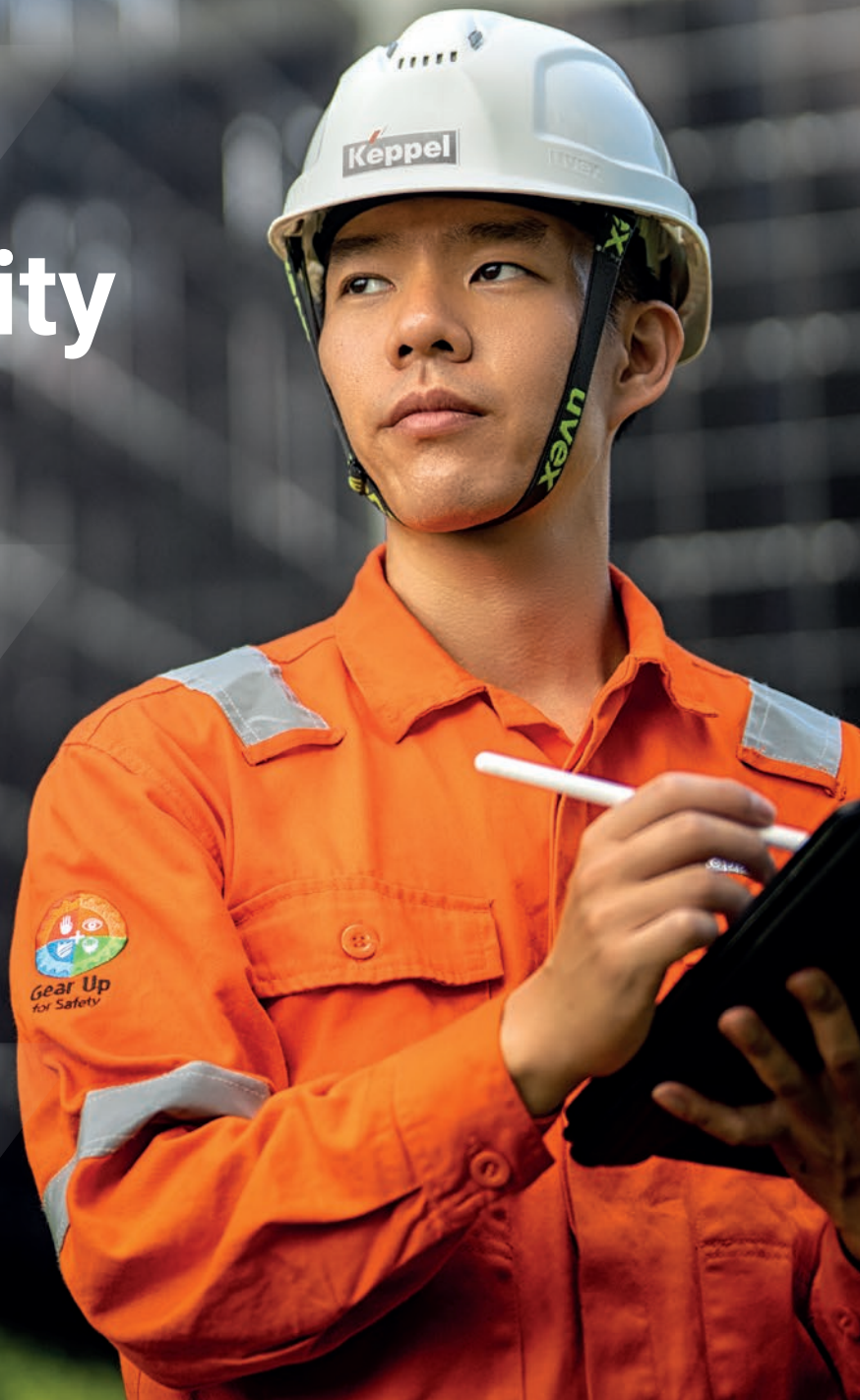


# Driving Sustainability

Sustainability Report 2022





# Driving Sustainability

As a leading global asset manager and operator, Keppel is investing in and creating solutions that not only deliver strong value, but also serve a wider purpose for our stakeholders and the planet, as we forge a sustainable future together.

## Who We Are

A leading global asset manager and operator, creating solutions for a sustainable future.

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# Driving Sustainability

We are running our business sustainably and making sustainability our business by investing in and creating solutions for a sustainable future.

**Loh Chin Hua**, Chief Executive Officer

**Dear Stakeholders,**

The past year saw both progress and challenges in global efforts to combat climate change. On the one hand, the international community reaffirmed its commitment to the Paris Agreement at the United Nations Climate Change Conference (COP27) in Egypt, and agreed to provide more support for developing countries. A growing number of countries have also set net zero targets, including Singapore, which announced in 2022 the country's enhanced target to achieve net zero emissions by 2050. The Singapore Government also announced plans to raise the country's carbon tax from 2024.

On the other hand, soaring energy prices and heightened energy security considerations resulted in some countries increasing their reliance on coal. The AR6 Synthesis Report of the Intergovernmental Panel on Climate Change provided a timely reminder of the urgent need for concerted action to avert a climate catastrophe, cautioning that global



warming was “more likely than not” to reach a 1.5°C rise above pre-industrial levels in the near term.

As a company committed to sustainability, Keppel will work closely with all stakeholders to contribute to the global sustainable development agenda.

### **Sustainability at the Core of Our Strategy**

As part of Keppel’s Vision 2030, we have put sustainability at the core of the Company’s strategy. This includes both running our business sustainably and making sustainability our business through investing in and providing solutions such as renewables, clean energy, decarbonisation and sustainable urban renewal. We support the achievement of the United Nations Sustainable Development Goals (SDGs), and have incorporated 10 of the SDGs as a supporting framework to guide our sustainability strategy.

In 2022, we took significant steps forward to enhance our governance and management of sustainability, with the establishment of a Board Sustainability and Safety Committee. We augmented the Board’s knowledge, experience and diversity with the appointment of two new independent directors with rich

waste-to-energy (WTE) plants in Singapore, among others.

Within Keppel’s operations, we are actively lowering our carbon footprint. Two years ago, we set a target to halve the Group’s Scope 1 and Scope 2 carbon emissions by 2030, compared to 2020 levels, and achieve net zero by 2050. I am pleased to share that as at the end of 2022, we have achieved a 17.6% reduction in Scope 1 and 2 emissions compared to our baseline. We have also set a new target for 50% of the Group’s electricity use to be from renewable energy sources by 2025, with a view to reach 100% by 2030. This would further accelerate the Group’s carbon emissions reduction.

We have expanded our Scope 3 emissions coverage from 10 to all 15 categories, and are reporting on the categories relevant to the Group. We are working with our value chain and portfolio of investments to lower their carbon emissions and improve energy efficiency where possible.

With growing recognition of the value of measuring avoided emissions, we are

**As at end-2022, we have achieved a 17.6% reduction in Scope 1 and 2 emissions compared to our baseline.**

experience and expertise in sustainability and digitalisation respectively. We also appointed our first Chief Sustainability Officer and established a dedicated Group Sustainability department to coordinate and drive the Group’s sustainability efforts.

Since 2020, Keppel has started implementing the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). In 2022, we conducted a scenario analysis of the potential financial impact of climate-related physical risks on 62 of the Group’s key assets, as well as a qualitative analysis of climate-related transition risks and opportunities. Climate change has been incorporated as a key risk in the Group’s Enterprise Risk Management framework, and is also closely integrated into Keppel’s business strategy. This is evident from the many climate-related initiatives that Keppel launched in the past year, including the inaugural import of renewable energy into Singapore, and the joint study with the National Environment Agency on the feasibility of carbon capture for selected

also reporting on the avoided emissions resulting from some of Keppel’s key solutions. In 2022, Keppel’s operation of two WTE plants in Singapore as well as the Domestic Solid Waste Management Centre in Qatar resulted in approximately 4.5 million tCO<sub>2</sub>e in net avoided emissions.

In addition, energy efficiency measures implemented by Keppel, together with the cumulative green initiatives implemented at Keppel Land’s Green Mark-certified developments, resulted in 1,125,595 GJ in energy savings in 2022. These translate to estimated cost savings of about \$94 million and the avoidance of approximately 126,000 tCO<sub>2</sub>e in emissions.

Beyond carbon emissions reduction, the Group also achieved a 41.9% weighted average reduction in waste intensity, and a 5.7% weighted average reduction in water intensity, relative to our 2019 baseline. Total hazardous waste generated by the Group’s operations also decreased by 10.4% year-on-year.

## Letter to Stakeholders

### Making Sustainability Our Business

At Keppel, sustainability is an integral part of how we create value. Earlier this year, we unveiled the Group's new identity and aspiration, to be "A Global Asset Manager and Operator, Creating Solutions for a Sustainable Future". The first half of the statement describes what we do, while the latter defines our purpose.

This purpose is reflected clearly in Keppel's business strategy, as we actively invest in and create sustainable solutions. We achieved several 'firsts' in the past year, including commencing Singapore's first renewable energy import; developing Singapore's first hydrogen-ready and most advanced, high-efficiency combined cycle gas turbine power plant; and the opening of *Keppel Infrastructure @ Changi*, Singapore's first Green Mark Platinum Positive Energy building under the new and more stringent BCA Green Mark scheme. In 2022, Keppel invested about \$2.8 billion worth of energy & environment and sustainable urban renewal-related investments, jointly undertaken by Keppel together with the private funds and/or business trust managed by Keppel Capital. We are also offering sustainable urban renewal solutions, which are greener, more cost-efficient and faster than new construction, and contribute to the circular economy.

With many countries and companies making net zero pledges, we see immense

## Keppel's purpose is creating solutions for a sustainable future.

opportunities where the Group can harness our strong capabilities and proven track records to help our customers and communities with their decarbonisation efforts.

### Strengthening Corporate Governance

Beyond environmental issues, we believe that strong corporate governance, compliance and risk management provide the foundation for a sustainable business. In 2022, we continued to improve the Group's compliance measures, including the further roll out of the ISO 37001 Anti-Bribery Management System across business units. To be better prepared for a volatile international environment, we conducted a Group-wide scenario planning exercise to assess potential risks from several global macroeconomic, geopolitical and climate-related scenarios, and developed mitigation plans where required. The Group also strengthened our technology and cyber security governance and controls.

We enhanced our Health, Safety and Environment (HSE) practices, including encouraging staff to speak up when they encounter any unsafe act or practice, as well as digitalising and streamlining our HSE systems and process. Regrettably,

despite our best efforts, the Group suffered three workplace fatalities from two incidents at Keppel Offshore & Marine's shipyard in Singapore in 2022. We have investigated the incidents and put in place measures to prevent recurrence.

### People-focus

We are committed to building an organisation where employees are engaged and motivated to give their best, and management takes a keen interest in deepening staff engagement. We are heartened to see that in the 2022 Global Employee Engagement Survey, the Group continued to achieve a strong overall engagement score of 84%, higher than Mercer's global average of 80%. 88% of Keppelites also indicated that they are proud to work for Keppel.

Keppel respects and upholds the fundamental principles of human rights. We value and respect all employees, and our hiring policies ensure equal employment opportunities for all. We are committed to diversity, including gender diversity. Women currently occupy about 31% of senior management and managerial positions in the Group. In 2022, the average salary, including cash incentives,



Carbon capture for WTE is a key target in Keppel's decarbonisation roadmap. (In picture: Keppel Seghers' Beijing Fangshan District Circular Economy Industrial Park.)



In 2022, the Group announced about \$2.8 billion worth of energy & environment and sustainable urban renewal-related investments, undertaken by Keppel with private funds and/or business trust managed by Keppel Capital.

**Sustainability is an integral part of how we create value. With many countries and companies making net zero pledges, we see immense opportunities where the Group can harness our capabilities to help our customers and communities with their decarbonisation efforts.**

of female employees was 98% that of male employees.

To develop a skilled workforce and help employees reach their full potential, we invest in training and development programmes, including using digital platforms to empower staff to take charge of their learning. In 2022, we achieved 24.2 training hours per employee, exceeding our target of 20 hours for the year.

**Community Investments**

Keppel aims to deliver social, economic and environmental benefits to the communities wherever we operate. In 2022, the Group contributed \$4.3 million to worthy causes, including social investments and industry advancement. This includes \$1.9 million disbursed through Keppel Care Foundation, the Group’s philanthropic arm. Key initiatives launched include a \$1 million pledge to Dementia Singapore to support persons with dementia and their caregivers, and a \$300,000 pledge to Gardens by the Bay to support a series of Nature and Sustainability Tours to enhance public awareness on biodiversity and

climate change. In Vietnam, we launched the Living Well programme, in which Keppel Land and Keppel Infrastructure collaborated to provide clean drinking water for about 20,000 villagers affected by drought and saltwater intrusion. In China, we contributed to COVID-19 relief efforts by delivering food and daily necessities to vulnerable communities affected by the lockdowns.

Despite restrictions related to COVID-19, Keppel Volunteers continued to serve the community actively, achieving over 14,000 hours of volunteer service during the year, higher than the 12,000 hours in 2021.

**Supporting the UN Global Compact**

Since 2018, Keppel Corporation has been a participant of the United Nations Global Compact, and we affirm our support of the Global Compact’s 10 principles on human rights, labour, environment and anti-corruption.

We are encouraged by the local and international recognition Keppel has received for our sustainability performance, including inclusion in the Dow Jones

Sustainability World and Asia-Pacific Indices and retaining the triple-A rating in the MSCI ESG rating.

I would like to thank our many partners, customers, investors and stakeholders for their trust and support for Keppel. I would also like to express my deep appreciation to the many dedicated Keppelites around the world who are contributing actively to our sustainability journey.

We will continue to work with all stakeholders to create a sustainable future.

Yours sincerely,

**Loh Chin Hua**  
**Chief Executive Officer**  
 12 May 2023

# Highlights



## Carbon Emissions

### Net Zero

Committed to halve the Group's Scope 1 and Scope 2 emissions by 2030, compared to 2020 levels, and achieve net zero Scope 1 and 2 emissions by 2050.



## Carbon Emissions Reduction

### 17.6%

Reduction in Scope 1 and 2 carbon emissions from 2020 baseline achieved by operations in Singapore and overseas.



## Scope 3 Emissions

### 15 Categories

Expanded screening of Scope 3 emissions to all 15 categories, with total emissions of 6.11 million tCO<sub>2</sub>e in 2022.



## Renewable Energy Utilisation

### 100% by 2030

Aim for 50% of the Group's electricity use to be from renewables by 2025, with a view to reach 100% by 2030.



## Energy Savings

### \$94m

In estimated cost savings from energy efficiency initiatives implemented by the Group in 2022 and from cumulative green initiatives implemented at Keppel Land's Green Mark-certified developments.



## Economic Value Generated

### \$10.6b

Of economic value generated for our stakeholders.



## Supply Chain

### 100%

Of new suppliers were screened in accordance with environmental, social and governance criteria.



## Employee Engagement

### 84%

Overall engagement score, higher than Mercer's global average of 80%. 88% of employees indicated that they are proud to work for Keppel.



## Training and Development

### >24 hrs

Of training per employee globally, higher than the target of 20 hours.



## Workplace Safety & Health Awards

### 11 Awards

Received at the WSH Awards 2022 organised by Singapore's Ministry of Manpower and the WSH Council.



## Social Investments

### \$4.3m

Contributed to social investment spending and industry advancement.



## Volunteerism

### >14,000 hrs

Of community service, exceeding the 12,000 hours in 2021.



# Sustainability Awards and Recognition

## Dow Jones Sustainability Indices

In December 2022, Keppel Corporation was included as a constituent of the Dow Jones Sustainability World Index (DJSI World) and the Dow Jones Sustainability Asia Pacific Index (DJSI Asia Pacific), ranking it among the top 10% of the largest 2,500 companies globally, and among the top 20% of the 600 largest companies in the Asia-Pacific developed region respectively, in the S&P Global Broad Market Index based on long-term environmental, social, governance and economic criteria. Keppel was also included in S&P Global's Sustainability Yearbook 2023, scoring among the top 5% in the industry.



## MSCI World ESG Leaders Index

Keppel Corporation has retained the highest triple-A rating in the MSCI environmental, social and governance (ESG) ratings<sup>1</sup>. The Company has held the triple-A rating since February 2020. Keppel Corporation is ranked as a leader, and among the top 8% of global industrial conglomerates, based on ESG criteria, in the MSCI All Country World Index (ACWI), MSCI's flagship global equity index, which covers more than 2,800 constituents. Keppel Corporation is a constituent on the MSCI ACWI and World ESG Leaders Indexes, and has been included on the MSCI ESG Leaders Indexes since 2014.



## iEdge Sustainability Indices

Keppel Corporation continued to be listed among the top 10 constituents of the iEdge SG ESG Leaders Index and iEdge SG ESG Transparency Index in 2022. The iEdge SG ESG Indices are composed of SGX-listed companies that meet sustainability reporting requirements and are considered ESG leaders with established and leading ESG practices. Keppel Corporation is also an index constituent of the iEdge Singapore Low Carbon Indices, which track Singapore or globally-listed companies domiciled or incorporated in Singapore based on carbon intensity performance.



## FTSE4Good Index Series

Keppel Corporation continued to be included as an index constituent of the FTSE4Good Index Series. The FTSE4Good Index Series identifies companies demonstrating strong ESG policies and practices. To be included in this index, companies are independently assessed on more than 300 indicators, which are applied according to each company's unique ESG risk exposure. Keppel has been included in the FTSE4Good Index since 2019.



## Euronext Vigeo World 120

Keppel Corporation was listed as an index component of the Euronext Vigeo Eiris – World 120 Index for the tenth consecutive year. Developed by Euronext, the primary exchange in the Eurozone, and Vigeo, the leading European agency in corporate social responsibility ratings, the Euronext Vigeo Eiris – World 120 Index is composed of 120 of the highest-ranking listed companies globally in terms of performance in corporate responsibility.



## Securities Investors Association (Singapore) Investors' Choice Awards

Keppel Corporation was conferred Winner of the Singapore Corporate Governance Award 2022 (Big Cap) at the Securities Investors Association (Singapore) (SIAS) Investors' Choice Awards 2022. This is the second consecutive year that Keppel has won this award, which aims to encourage public listed companies to adopt high levels of corporate governance and sustainability practices.



## Forbes World's Best Employers

Keppel Corporation was ranked as one of the World's Best Employers 2022 by Forbes. The ranking was based on a survey of 150,000 workers from 57 countries working for multinational companies and institutions, who rate the companies on aspects including economic impact and image, talent development, gender equality and social responsibility.



## Workplace Safety and Health Awards

Keppel was conferred 11 awards at the Workplace Safety and Health (WSH) Awards 2022 organised by Singapore's Ministry of Manpower and the WSH Council. The Group received accolades in the following categories: Developer Award, Safety and Health Award Recognition for Projects, WSH Performance Awards, WSH Innovation Awards and WSH Awards for Supervisors.



## Champion of Good

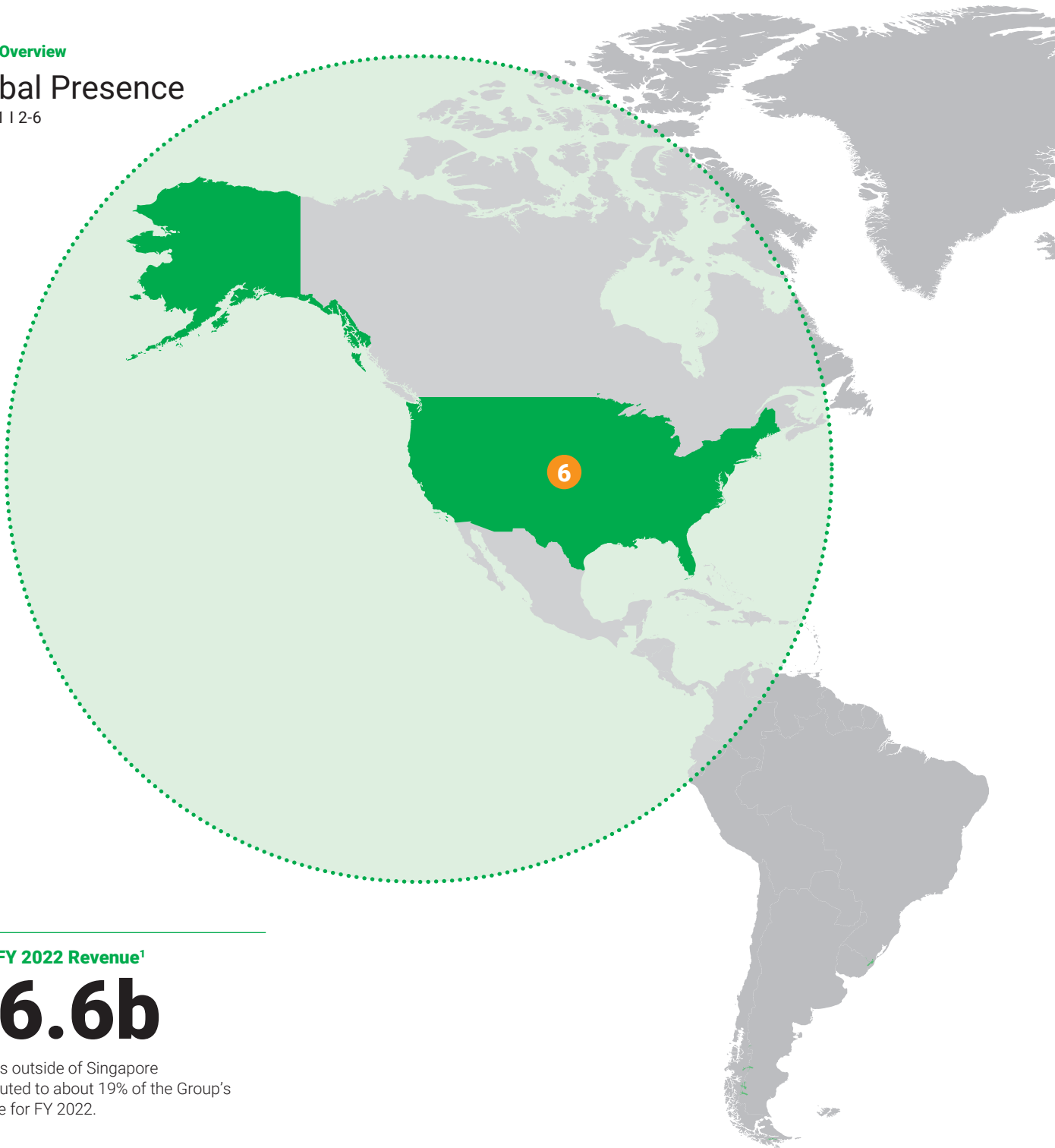
Keppel Corporation was conferred a Champion of Good 2022 for the fourth time by the National Volunteer & Philanthropy Centre which recognises organisations that are exemplary in doing good while multiplying the impact of their corporate giving by engaging their partners and stakeholders.



<sup>1</sup> The use by Keppel Corporation of any MSCI ESG Research LLC or its affiliates ("MSCI") data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of Keppel Corporation by MSCI. MSCI services and data are the property of MSCI or its information providers, and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

# Global Presence

GRI 2-1 | 2-6



## Total FY 2022 Revenue<sup>1</sup>

# \$6.6b

Markets outside of Singapore contributed to about 19% of the Group's revenue for FY 2022.

**1**

---

**Asia (Ex Singapore)**  
**\$1,079m**

- China
- India
- Indonesia
- Japan
- Malaysia
- Myanmar
- The Philippines
- Republic of Korea
- Vietnam

**2**

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**Singapore**  
**\$5,393m**

**3**

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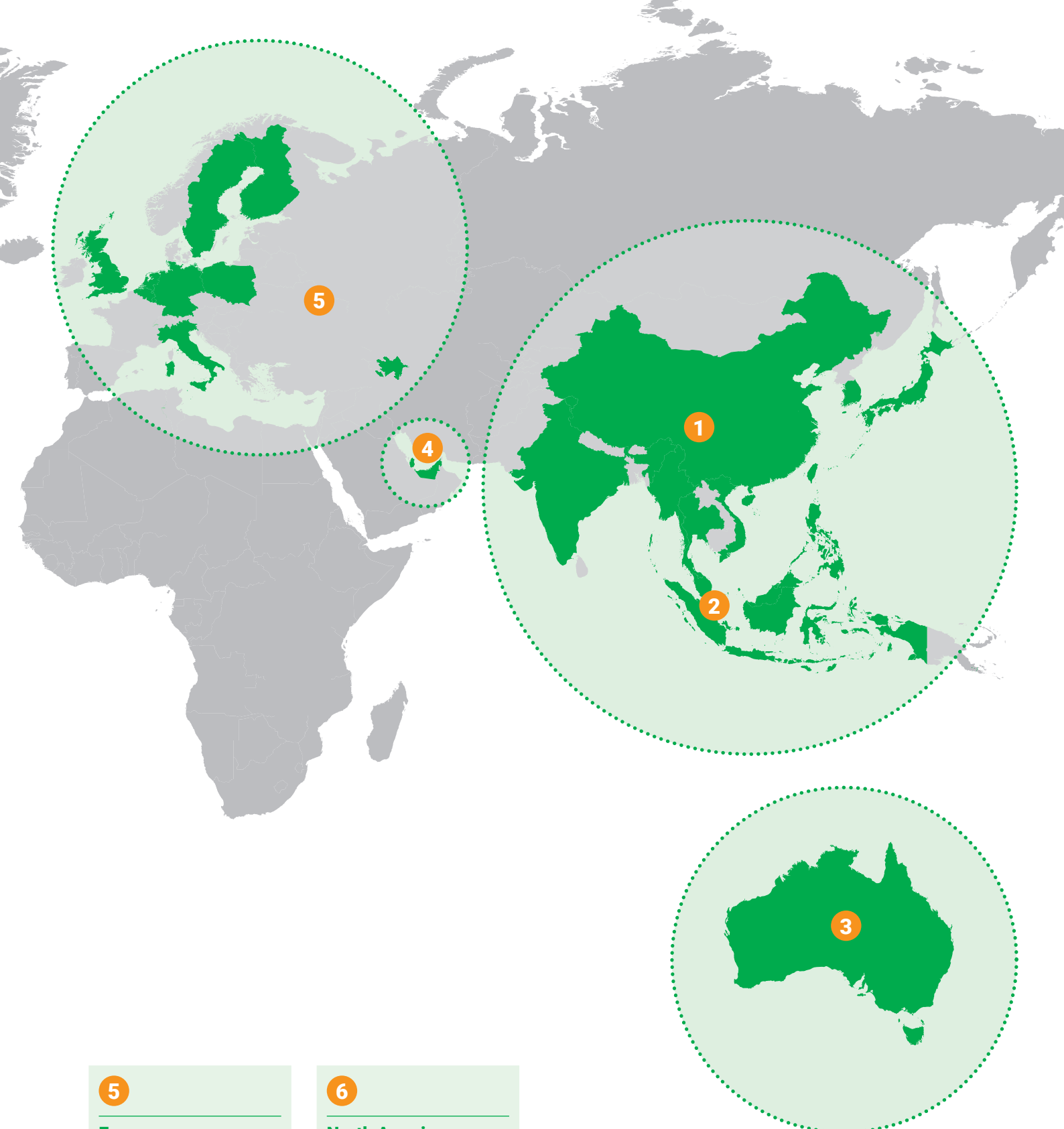
**Australia**  
**\$58m**

**4**

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**Middle East**  
**\$73m**

- Qatar
- The United Arab Emirates



5

**Europe**  
**\$13m**

- Azerbaijan
- Belgium
- Finland
- Germany
- Italy
- Luxembourg
- Poland
- Sweden
- The Netherlands
- The United Kingdom

6

**North America**  
**\$4m**

- The United States

1

2

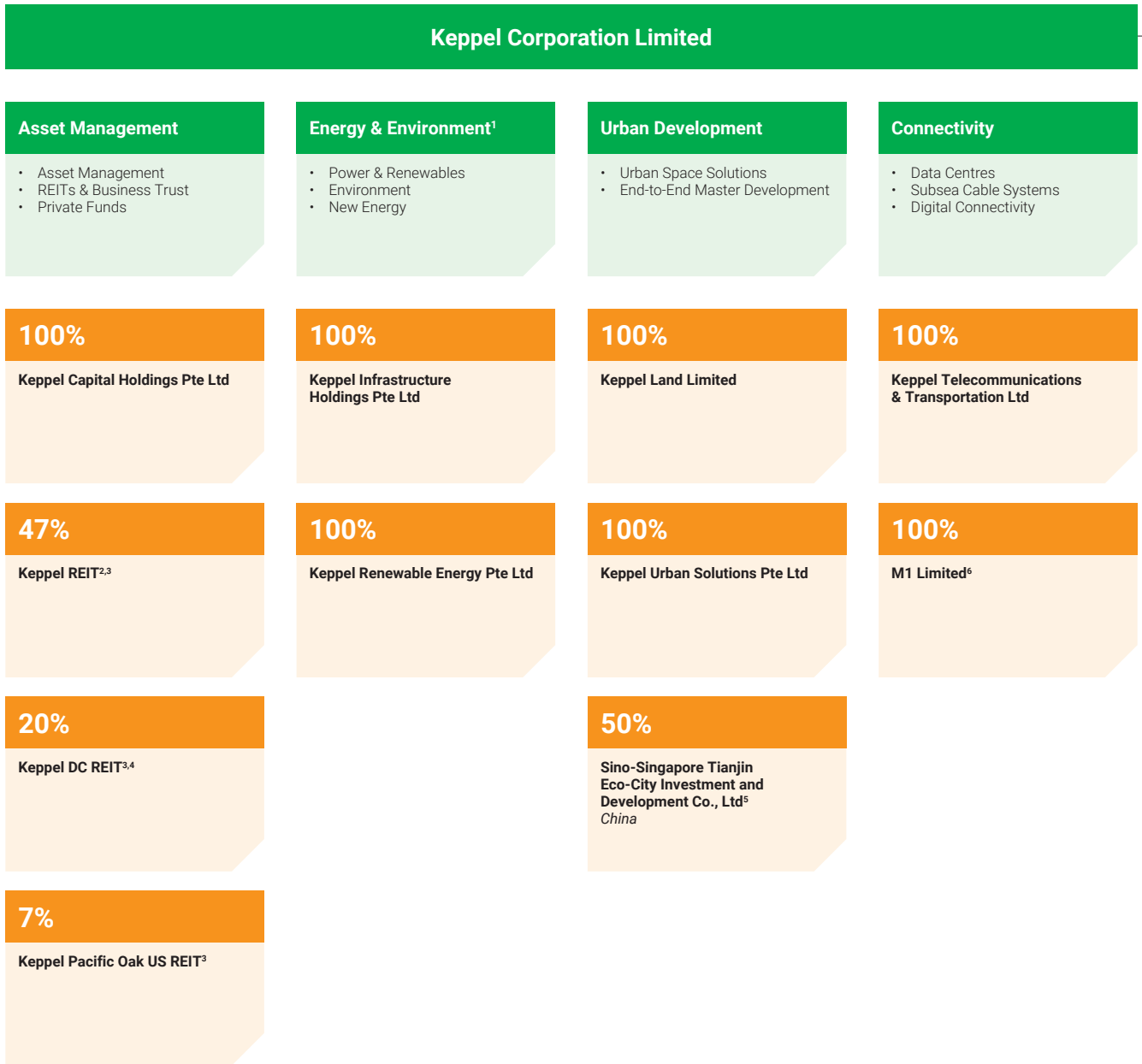
3

4

<sup>1</sup> Revenue from continuing operations.

# Group Structure

GRI 2-1 | 2-2 | 2-6



Group Corporate Services		
Control & Accounts	Human Resources	Risk & Compliance
Corporate Communications	Information Technology	Strategy & Development
Cyber Security	Internal Audit	Sustainability
Digital Office	Legal	Tax
Health, Safety & Environment	Mergers & Acquisitions	Treasury

Notes:

- <sup>1</sup> Excludes Keppel Offshore & Marine (Keppel O&M), as the combination of Keppel O&M and Sembcorp Marine Ltd was completed on 28 February 2023.
- <sup>2</sup> Owned by Keppel Land Limited (40%) and Keppel Capital Holdings Pte Ltd (7%).
- <sup>3</sup> Public listed company.
- <sup>4</sup> Owned by Keppel Telecommunications & Transportation Ltd (19.6%) and Keppel DC REIT Management Pte Ltd (0.6%).
- <sup>5</sup> Owned by a Singapore Consortium, which is in turn 90%-owned by the Keppel Group.
- <sup>6</sup> Owned by Keppel Konnect Pte Ltd (19%), and Connectivity Pte Ltd (81%), which are in turn 100%-owned and 80%-owned by the Keppel Group respectively.

Updated as at 2 March 2023. This Group Structure illustrates the key business units of Keppel Corporation Limited. A complete list of significant subsidiaries, associated companies and joint ventures is available in Note 40 of the Notes to Financial Statements in Keppel Corporation's Annual Report 2022.

# Sustainability Framework

We are committed to environmental stewardship, responsible business practices, and investing in people and communities wherever we operate.



## Environmental Stewardship

We are committed to environmental sustainability and improving resource efficiency. We have set quantitative targets to reduce the Group's Scope 1 and 2 carbon emissions, as well as water and waste intensity. We are working with our value chain and portfolio of investments to improve energy efficiency and lower Scope 3 emissions where possible.

We are also making sustainability our business by providing solutions that contribute to sustainable development and climate action. We are refocusing the Group's portfolio on solutions for a sustainable future, including evaluating their fit with Keppel's environmental sustainability goals as well as the risks and opportunities associated with climate change. We are expanding the Group's involvement in renewables, clean energy, decarbonisation solutions and sustainable urban renewal, and aim to grow the Group's renewable energy portfolio to 7 GW by 2030.

### Material ESG factors:

- Climate Action and Environmental Management

» For more information, go to: pages 30 to 43



## Responsible Business

The long-term sustainability of our business is driven at the highest level of the organisation through a strong and effective board, good corporate governance and prudent risk management, including the evaluation of ESG risks.

We are driving collaboration and innovation across the Group, leveraging technology and our asset-light model to provide solutions that contribute to sustainable development and combatting climate change, while creating value for all our stakeholders.

We also work with stakeholders in our value chain to enhance their sustainability performance.

### Material ESG factors:

- Corporate Governance and Risk Management
- Economic Contribution to Society
- Supply Chain Management

» For more information, go to: pages 44 to 71



## People and Community

People are the cornerstone of our business. We are committed to diversity, employee well-being, workplace health and safety and investing in the training and development of our employees to help them reach their full potential.

We strive to create value and uplift communities wherever we operate. We support initiatives that contribute to protecting the environment, promoting education and caring for the underprivileged, with the goal of building a sustainable future together. We have committed to contribute up to 1% of the Group's net profit to worthy causes.


### Material ESG factors:

- Human Capital Management
- Health and Safety
- Community Development

» For more information, go to: pages 72 to 96

# Sustainability Management

GRI 2-9 | 2-12 | 2-14 | 2-28

 Guided by Vision 2030, we will grow Keppel as an integrated business, providing solutions for a sustainable future, with sustainability at the core of our strategy.

## Sustainability Governance

The Board and management of Keppel Corporation are committed to sustainability, which is at the core of the Company's strategy.

The Board and management consider sustainability issues in the Company's business and strategy, determine the material ESG factors and oversee the management and monitoring of the material ESG factors.

Sustainability-related topics, including environmental and climate change issues, as well as social and governance aspects, are regularly discussed by the Board, which meets six times a year, and as warranted by circumstances. Since July 2022, sustainability has been included in the agenda of each Board meeting.

In May 2022, the Board established a Board Sustainability and Safety Committee (BSSC) to provide even greater focus on sustainability matters. The role of the former Board Safety Committee has been subsumed under the BSSC.

The BSSC is chaired by non-independent and non-executive director Mr Teo Siong Seng, and its members include the Chairman of Keppel Corporation Mr Danny Teoh, CEO and Executive Director Mr Loh Chin Hua, as well as Independent Director Mr Olivier Blum, who has extensive experience in sustainability.

The BSSC meets at least four times a year. Its roles include ensuring that the Group has in place an effective sustainability governance structure, reviewing the Company's sustainability strategy to ensure that they are relevant to evolving local and global sustainability trends, overseeing the adoption of and progress towards the Company's sustainability goals, reviewing the processes for identifying, assessing and managing climate-related risks and opportunities, and overseeing the Company's health, safety and environmental performance, among others. The BSSC also makes regular visits to the Group's projects and worksites,

## Board Statement on Sustainability

"The Board and management of Keppel Corporation have considered sustainability issues in the Company's business and strategy, determined the material environmental, social and governance (ESG) factors and overseen the management and monitoring of the material ESG factors."

Keppel Corporation Board of Directors

including interacting with the Group's contractors and suppliers, to monitor and better understand the Group's sustainability and safety performance.

Each quarter, the Chairman of the BSSC provides an update to the Board on key issues deliberated by the BSSC. The BSSC also considers management's proposals on sustainability-related policies and practices and makes recommendations to the Board where relevant.

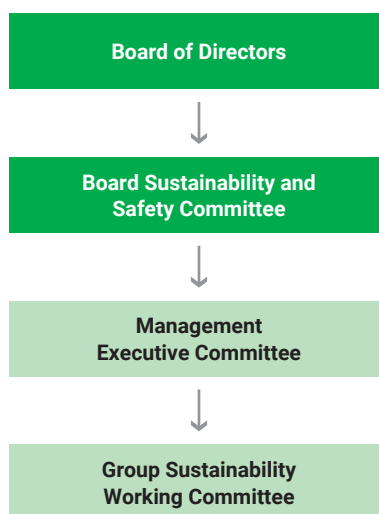
While the BSSC maintains broad oversight over sustainability issues, other Board Committees, namely the Audit, Nominating, Remuneration and Board Risk Committees, also address specific aspects of sustainability relevant to their respective committees.

At the management level, the Management Executive Committee (MExCo), which meets every month, oversees Keppel's strategy and performance, including sustainability issues. MExCo also determines the Group's key sustainability policies and targets, before they are presented to the BSSC. The committee is chaired by the CEO and comprises senior management from across the Group, including the Chief Financial Officer, CEOs of key business units and the Chief Sustainability Officer (CSO).

The CSO, who reports to the CEO as well as the BSSC, coordinates and drives the Group's sustainability efforts. The CSO chairs the Group Sustainability Working Committee, comprising heads of corporate functions and representatives from across business units, which monitors and executes the Group's sustainability efforts. The CSO also heads the Group Sustainability department, which manages different aspects of the Group's sustainability efforts, including preparing Keppel's sustainability report, with inputs from business units and members of the Group Sustainability Working Committee.

To embed sustainability throughout the Company and ensure accountability, sustainability targets have been included in the performance appraisal of senior management across the Group, including both annual remuneration and long-term incentives. Key sub-targets within the performance scorecard include key financial indicators, safety, risk management, compliance and controls, environmental sustainability, employee engagement, talent development and succession planning. Environmental sustainability targets, including carbon emissions reduction, account for 7.5% of the Company's performance scorecard.

**Keppel Group's Sustainability Management Structure**



**Memberships in Associations**

GRI 2-28

As part of the process of engaging different stakeholders, we participate as members in various organisations, including:

- United Nations (UN) Global Compact as a participant, and Global Compact Network Singapore. We are committed to the 10 principles of the Global Compact and support the UN Sustainable Development Goals;
- Singapore Institute of Directors to promote the professional development of directors and corporate leaders and uphold the highest standards of corporate governance and ethical conduct;
- Securities Investors Association (Singapore) to engage the investment community and promote good corporate governance;
- Singapore National Employers Federation to promote excellence in employment practices;
- Workplace Safety & Health (WSH) Council to build industry capabilities to better manage WSH and promote safety and health at work;
- The Institute of Policy Studies to support the analysis and discussion of public policy in Singapore;
- Singapore Institute of International Affairs to deepen understanding and forge stronger partnerships between countries in the region;
- GRI Singapore as a member of the Founding Consortium to support companies in ASEAN with relevant services and training to manage and report their most material ESG impacts;
- Singapore Low Carbon Network, an initiative by PricewaterhouseCoopers Singapore to build capability and share knowledge in achieving a low carbon Singapore; and
- SGListCos, which was launched in May 2022, as a founding member, to support the long-term growth and success for companies listed on the Mainboard and Catalist of the SGX in three critical areas, namely thought leadership and advocacy, ESG ecosystem, and corporate access and investor relations.

# Sustainability Management

## Stakeholder Engagement

GRI 2-29

Keppel is committed to creating value for all its stakeholders. Regular engagement with our stakeholders helps us refine our material areas of focus, as well as identify and manage our positive and negative impacts. We have

applied the reporting principles from the GRI Standards, where stakeholders are defined as individuals or groups that have interests that are affected, or could be affected, by an organisation’s activities, and an interest is defined as something of value to an individual or group, which can be affected by the

activities of an organisation. Stakeholders can have more than one interest. The table below outlines how Keppel engages its six key categories of stakeholders. Inputs from all six groups were sought during the review of Keppel’s material ESG factors conducted in 2022.



### Employees

**Significance**  
People are our most valuable asset. We are committed to employee well-being, workplace health and safety, and invest in the training and development of our employees to help them reach their full potential. We adopt merit-based recruitment practices and emphasise diversity, equity and inclusiveness.

**Key Topics & Concerns**  
Company strategy and direction; employee engagement; training and talent development; compensation and benefits; diversity, equity and inclusion; fair employment; human rights.

**Key Engagement Platforms**  
Annual employee engagement surveys; regular townhalls and other employee engagement programmes; regular engagement of unions; visits by Board and senior management to business units and worksites; continuous training and development; mentorship programmes.

**Our Response**  
Read more about how we manage human capital on pages 72 to 81.



### Customers

**Significance**  
Customer satisfaction is crucial to the success of our businesses. We are committed to continually improving our products and services to better meet customers’ needs, including through harnessing insights from customer engagement.

**Key Topics & Concerns**  
Sustainability, quality and safety of products and services; Health, Safety and Environment (HSE) excellence.

**Key Engagement Platforms**  
Regular meetings; ongoing communication via different channels; regular customer satisfaction surveys. For example, Keppel Land conducts surveys with home buyers upon project completion, while M1 conducts Net Promoter Score surveys after each service/transaction and holds in-store surveys with customers.

**Our Response**  
Read more about how we contribute to our customers’ climate change and environmental goals on pages 30 to 43; and engage customers on ESG issues on pages 85 to 86.



### Governments

**Significance**  
Governments shape the business environments in which we operate. Policies and regulations can affect how businesses are run and also create new opportunities. We track topics of concern to governments and regulatory bodies wherever we operate, and seek to not only comply with, but also support the policies of national and regional governments.

**Key Topics & Concerns**  
Economic development; addressing environmental protection and climate change; taxation; opportunities for collaboration and investment; setting industry benchmarks.

**Key Engagement Platforms**  
Periodic visits and meetings with government representatives; industry forums; support for national and regional initiatives.

**Our Response**  
Read more about how we collaborate with national/regional governments and contribute to their climate change and environmental goals on pages 30 to 43; taxation and job creation on pages 64 to 67; enhancing industry standards on pages 82 to 88; and workforce development on pages 72 to 81.



### Shareholders & Investors

**Significance**  
Shareholders play an important role in the financing and governance aspects of our business. Our Investor Relations Policy sets out the principles that the Company abides by to ensure a level playing field and help shareholders and prospective investors make well-informed decisions.

**Key Topics & Concerns**  
Business strategy and direction; Company’s financial performance; Assets under Management; dividends; sustainability strategy and performance.

**Key Engagement Platforms**  
Regular results briefings and business updates; engagement with analysts and media; Annual General Meetings and Extraordinary General Meetings; meetings and conference calls with investors; roadshows to meet overseas investors; briefings to retail shareholders; facility visits.

**Our Response**  
Read more about how we engage the investment community on pages 48 and 49 of the Company’s Annual Report 2022.



### Suppliers

**Significance**  
Strong, effective relationships with our suppliers give our businesses strategic and operational advantages. By effecting stringent procurement processes and through our Supplier Code of Conduct, we aim to encourage our suppliers to adopt more sustainable practices.

**Key Topics & Concerns**  
Sustainability performance; compliance; HSE excellence; fair treatment; responsible procurement practices.

**Key Engagement Platforms**  
Regular meetings by project managers and HSE teams with key subcontractors and suppliers; regular site visits by management; ESG screening of suppliers and engagement on Keppel’s Supplier Code of Conduct; organisation of training for suppliers on ESG issues.

**Our Response**  
Read more about how we work with suppliers to influence their sustainability performance on pages 68 to 71.



### Local Communities

**Significance**  
As active members of our communities, we aim to contribute towards their well-being. We engage with community leaders to develop impactful programmes that drive community development. We also proactively engage with the local communities which may be impacted by our operations to gather feedback and communicate mitigating measures.

**Key Topics & Concerns**  
Impact assessment and mitigation; community investments; donations to social and environmental causes; volunteer programmes.


**Key Engagement Platforms**  
Public communications including media engagement; donations in support of issues of concern to the community, including through Keppel Care Foundation; volunteer programmes; community outreach initiatives; communication with local communities on upcoming/ongoing construction works.

**Our Response**  
Read more about how we collaborate with community partners to support social and environmental causes on pages 89 to 96.



# Materiality

GRI 3-1 | 3-2

 The materiality review helps the Company to focus its sustainability strategy, management practices and reporting on the most significant factors and impacts in order to create sustainable value over the long term.

The Board and management of Keppel Corporation review annually and determine the environmental, social and governance (ESG) factors material to the Group's business, taking into account the Group's prevailing business strategy, market conditions and stakeholder concerns. The materiality review helps the Company to focus its sustainability strategy, management practices and reporting on the most significant factors and impacts in order to create sustainable value over the long term.

In 2022, Keppel conducted a comprehensive review of its material ESG factors, supported by an independent consultant, taking into account the Group's business transformation and refocused portfolio as the Company accelerates its execution of Vision 2030.

The review incorporated double materiality perspectives, and explored how ESG factors

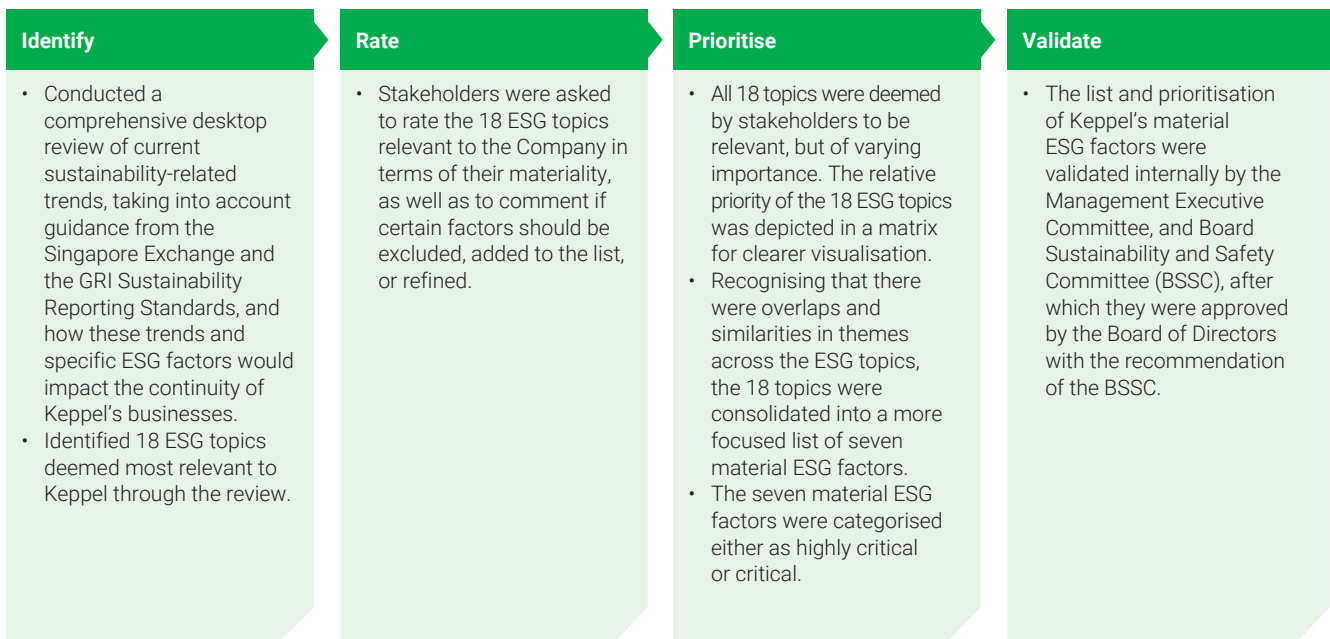
impact the Company's operational context, strategic direction and ability to create value, as well as how Keppel's business and operations affect the external environment. The review process involved in-depth interviews, focus group discussions and an online survey, which reached out to more than 110 internal and external stakeholders.

The internal stakeholders engaged comprised directors, senior management and staff, including those operating in different sectors and countries, and also took into account diversity in seniority, skillsets, experience and gender. External stakeholders engaged included Keppel's investors, regulators, customers, suppliers, as well as community partners and civil society, and they provided a deeper understanding of external expectations and perspectives on Keppel's impact on the environment and society.

The seven material ESG factors identified through the materiality review were grouped under Keppel's three sustainability pillars of Environmental Stewardship, Responsible Business as well as People and Community, which correspond with the environmental, governance and social aspects of sustainability respectively. They were further organised into highly critical and critical factors, based on the outcome of the prioritisation process, as well as management's judgement of their impact on the Company and the Company's impact on external stakeholders.

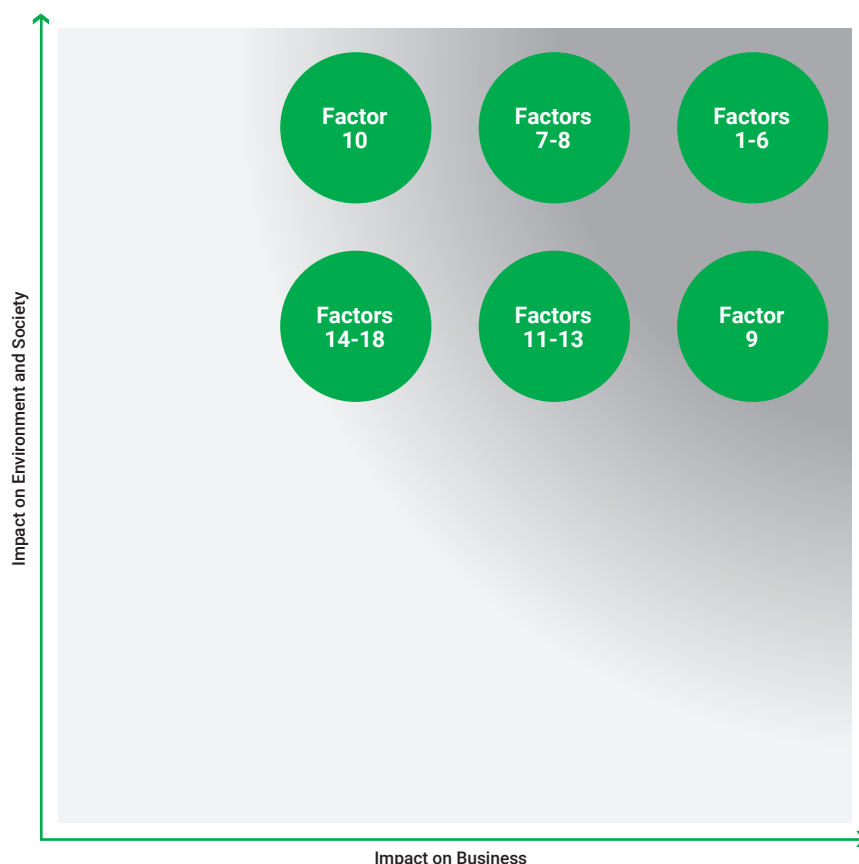
Climate Action & Environmental Management, Corporate Governance & Risk Management, Human Capital Management, as well as Health & Safety, were identified as highly critical factors which can have the greatest impact on Keppel's business and the generation of long-term value, as well as where the Company can have the biggest impact.

The materiality review process is aligned with the Singapore Exchange's guidance, and involved the following four key steps:



# Materiality

## Materiality Matrix



### 18 Relevant ESG Topics

- 1. Climate Action
- 2. Emissions
- 3. Energy Management
- 4. Business Ethics
- 5. Corporate Governance
- 6. Health & Safety
- 7. Water Management
- 8. Innovation
- 9. Cyber Security & Data Protection
- 10. Waste Management
- 11. Sustainable Supply Chain Management
- 12. Fair Employment Practices
- 13. Talent Attraction, Retention & Development
- 14. Biodiversity & Environmental Protection
- 15. Economic Contribution to Society
- 16. Community Development
- 17. Diversity, Equity & Inclusion
- 18. Human Rights

### Legends

- Environmental Stewardship
- Responsible Business
- People and Community

### Changes to Material ESG Factors following 2022 Assessment

Importance	Material ESG Factors from 2022 Assessment	Key Revisions Made Relative to Previous Material ESG Factors
Highly Critical	Climate Action and Environmental Management	Climate Action and Environmental Management have been combined as similar policies and targets relate to the two topics.
	Corporate Governance and Risk Management	No change.
	Human Capital Management	Material factor was renamed from Labour Practices, Talent Management & Human Rights to encompass a broader range of human resources-related topics, which are currently monitored and managed.
	Health and Safety	Material factor was renamed from Occupational Health & Safety and expanded to include Product Safety.
Critical	Economic Contribution to Society	Material factor was renamed from Economic Sustainability to better reflect the most relevant ESG considerations and how they affect Keppel's stakeholders.
	Supply Chain Management	Material factor was renamed from Supply Chain & Responsible Procurement as Responsible Procurement is a subset of Supply Chain Management.
	Community Development	No change.

## Management and Monitoring of Material ESG Factors

The Board and management oversee the management and monitoring of the material ESG factors and are regularly updated on the progress and key developments related to these topics.

The day-to-day management of each material factor is handled by different

functional departments or dedicated committees in the Group, and coordinated by the Group Sustainability Working Committee which is chaired by the Chief Sustainability Officer, with oversight by the Management Executive Committee. The BSSC further oversees management's plans and progress towards achieving the goals and targets associated with the material ESG factors.

The materiality assessment and key material factors have been integrated in the Group's Enterprise Risk Management process. The disclosures and targets for each material factor, as well as the parties responsible for managing each material ESG factor, are discussed in the respective sections of this report.

Sustainability Pillars	7 Material ESG Factors <sup>1</sup>	Description	18 Relevant ESG Topics
Environmental Stewardship	<b>Climate Action and Environmental Management</b>	Keppel is committed to both running our business sustainably, and making sustainability our business through creating solutions that contribute to a sustainable future. This involves focusing our portfolio on sustainability-related solutions and innovations, building resilience against climate change risks, and seizing climate-related opportunities for growth. We are also committed to minimising our environmental impact by reducing greenhouse gas emissions, energy consumption, water consumption and waste generation, as well as preventing pollution, preserving biodiversity and avoiding deforestation in our operations.	<ul style="list-style-type: none"> <li>Climate Action</li> <li>Emissions</li> <li>Energy Management</li> <li>Waste Management</li> <li>Water Management</li> <li>Biodiversity &amp; Environmental Protection</li> </ul>
	<b>Corporate Governance and Risk Management</b>	Keppel recognises that good corporate governance is essential to the sustainability of the Company's businesses, and that non-compliance with laws and regulations may pose financial, operational and reputational risks. We are committed to ensuring strong corporate governance and regulatory compliance; robust risk management, including of sustainability-related risks; as well as high standards of ethical business conduct, including zero tolerance for fraud, bribery, and corruption.	<ul style="list-style-type: none"> <li>Business Ethics</li> <li>Corporate Governance (including Risk Management)</li> <li>Cyber Security &amp; Data Protection</li> </ul>
	<b>Economic Contribution to Society</b>	Keppel creates value for all stakeholders through running a successful and resilient business, which provides good dividends for shareholders, jobs for communities, and tax revenue for governments. By growing our business as a provider of solutions for a sustainable future, Keppel contributes to the economic advancement of society, while contributing to environmental sustainability.	<ul style="list-style-type: none"> <li>Economic Contribution to Society</li> </ul>
Responsible Business	<b>Supply Chain Management</b>	Keppel believes in building a resilient, responsible and diversified supply chain. We are committed to integrating sustainability criteria in the selection, monitoring and evaluation of suppliers, and engaging with suppliers to adopt sustainable and responsible business practices, minimise social and environmental impacts as well as manage risks across our supply chains.	<ul style="list-style-type: none"> <li>Sustainable Supply Chain Management</li> </ul>
	<b>Human Capital Management</b>	Keppel recognises that its people are fundamental to the Company's performance. We seek to build a strong talent pool led by people-centric leaders. We are committed to promoting employee well-being, upholding fair employment practices, and empowering a diverse and engaged workforce.	<ul style="list-style-type: none"> <li>Fair Employment Practices</li> <li>Talent Attraction, Retention &amp; Development</li> <li>Diversity, Equity &amp; Inclusion</li> <li>Human Rights</li> </ul>
	<b>Health and Safety</b>	Keppel is committed to providing safe and healthy working environments. We believe in a proactive safety culture and advocate for continuous improvements in health and safety standards, both in our operations and in the broader community. We also ensure high safety standards for our products and services to safeguard customer health and safety.	<ul style="list-style-type: none"> <li>Health &amp; Safety</li> </ul>
People and Community	<b>Community Development</b>	Keppel believes that the Company does well when the community does well. We aim to uplift and give back to communities wherever we operate, building lasting positive relationships and effective partnerships, including through staff volunteerism. We invest in worthy causes, focusing in particular on caring for the underprivileged, protecting the environment and supporting education.	<ul style="list-style-type: none"> <li>Community Development</li> </ul>

<sup>1</sup> Innovation is deemed an enabler that affects the management of each material ESG factor and has not been listed as a standalone material ESG factor.

# Material Factors

GRI 3-2 | 2-23 | 2-24

## Contributing to Sustainable Development

Keppel has a two-pronged sustainability strategy of running our business sustainably, and making sustainability our business by providing solutions that contribute to global sustainable development and decarbonisation efforts.

Our approach to sustainability is underpinned by the three pillars of (i) Environmental Stewardship, (ii) Responsible Business, and (iii) People and Community, which address the environmental, social and governance (ESG) aspects of sustainability.

Keppel's seven material ESG factors are organised under each of these pillars.

The table below highlights Keppel's strategy and the key actions taken to address the risks and opportunities related to each material ESG factor. While all material ESG factors are important, we have identified Climate Action & Environmental Management, Corporate Governance & Risk Management, Human Capital Management as well as Health & Safety as the material ESG factors which can have the greatest impact on our business and the generation of

long-term value, as well as where the Company can have the biggest impact.

As a company committed to sustainability, Keppel contributes, both directly and indirectly, towards the achievement of the United Nations Sustainable Development Goals (SDGs). We have identified 10 SDGs which represent the Group's most significant impacts on the sustainable development agenda. They include areas where Keppel is making the most positive impacts on the SDGs, as well as areas where we have a responsibility to prevent and mitigate potential negative impacts.

## Environmental Stewardship

### Material Factor Climate Action & Environmental Management

#### Approach

Climate change is one of the most severe challenges facing humanity. Physical risks can lead to stranded assets, higher operating costs and business disruptions, while transition risks such as policy, legal, technological and market changes may pose financial, operational and reputational risks.

Keppel strongly supports the efforts by the international community and the Singapore Government to address climate change. We recognise climate change as a key strategic risk under our risk assessment framework, and are taking steps to better understand and address climate-related risks, while also seizing opportunities created by the growing global focus on climate action.

Keppel is committed to both running our business sustainably, and making sustainability our business through providing solutions that contribute to a greener world. This involves focusing our portfolio on sustainability-related solutions and innovations, building resilience against climate change risks, and seizing climate-related opportunities for growth. We are also committed to minimising our impact on the environment by reducing greenhouse gas emissions, energy consumption, water withdrawal and waste generation, as well as preserving biodiversity and avoiding deforestation in our operations.

#### Highlights

Keppel has committed to halve its Scope 1 and 2 carbon emissions by 2030, compared to 2020 levels, and achieve net zero by 2050. In 2022, the Group achieved a 17.6% reduction in absolute Scope 1 and Scope 2 carbon emissions compared to our 2020 baseline.

We have been tracking our Scope 3 carbon emissions since 2019 and have expanded the coverage to all 15 categories in 2022.

Since 2020, Keppel has adopted a shadow carbon pricing policy to evaluate major investment decisions in order to contribute to climate action, mitigate climate-related risks, prepare for tougher climate legislation and higher carbon prices, and avoid stranded assets.

Keppel has set a target to grow our renewable energy portfolio to 7 GW by 2030, and has announced renewables projects with a total capacity of 2.6 GW as at end-2022, including projects under development.

Within our operations, Keppel has set a target for 50% of the Group's electricity use to be from renewable energy sources by 2025, with a view to reach 100% by 2030.

Keppel has also set targets to achieve a 20% reduction in water intensity and 10% reduction in waste intensity by 2030 from 2019 levels. In 2022, the Group achieved a 5.7% weighted average reduction in water intensity and a 41.9% weighted average reduction in waste intensity, from our 2019 baseline. We will be reviewing our waste target following the divestment of Keppel Offshore & Marine (Keppel O&M) which accounted for more than 80% of the Group's waste in 2022.

In 2022, Keppel Corporation signed on to the Singapore Green Nation Pledge, which comprises a list of commitments intended to help make Singapore green, liveable and climate resilient.

Keppel is refocusing our portfolio on solutions for a sustainable future by providing solutions that help governments and our customers contribute to climate action and achieve net zero. In 2022, we actively expanded our business in Vision 2030 growth areas, such as renewables, clean energy and environmental solutions. These include commencing Singapore's first renewable energy import; developing Singapore's first hydrogen-ready power plant, the Keppel Sakra Cogen Plant; opening of *Keppel Infrastructure @ Changi*, Singapore's first Green Mark Platinum Positive Energy building under the new and more stringent Green Mark scheme; and exploring green ammonia and green hydrogen opportunities with international partners. In the area of clean water, Keppel operates the Keppel Marina East Desalination Plant, Singapore's first large-scale, dual-mode desalination plant, which contributes to strengthening the country's water security. Keppel is also seizing opportunities in sustainable urban renewal, and continuing to develop innovative solutions for greener data centres.

### Impact on SDGs



## Responsible Business

### Material Factor Corporate Governance & Risk Management

#### Approach

Keppel recognises that good corporate governance is essential to the sustainability of the Company's business, and that non-compliance with laws and regulations may pose financial and reputational risks. We are committed to ensuring strong corporate governance and regulatory compliance, robust risk management including of sustainability-related risks, as well as high standards of ethical business conduct including zero tolerance for fraud, bribery and corruption.

As part of risk management, Keppel has robust business continuity plans in place to safeguard against different strategic risks, including sustainability and climate-related risks.

#### Highlights

In 2022, Keppel appointed two new independent directors, Mr Olivier Blum and Mr Jimmy Ng, to our Board with effect from 1 May. Mr Blum and Mr Ng are also members of the Board Sustainability and Safety Committee and the Board Risk Committee respectively. Mr Blum has extensive experience in both running companies sustainably and driving sustainability-as-a-business on a global scale, while Mr Ng has rich expertise in driving digitalisation as a corporate strategy. Their appointments reflect Keppel's commitment to achieve a good balance of skills, knowledge, talents, experience as well as diversity among directors, and ensures that Keppel can benefit from the best talent as we execute the Group's Vision 2030.

Amidst significant global risks in 2022 arising from the Russia-Ukraine conflict, volatility in commodity prices, rising interest rates and inflation, disruption in global supply chains, and slowdown of China's economy, Keppel continued to operate effectively and was able to manage these risks through robust risk management practices and planning.

Given our zero tolerance for fraud, bribery, corruption and violation of laws and regulations, we continued to enhance our Compliance framework including digitisation of Know Your Client processes through a system platform implemented across Keppel and the further roll out of the ISO 37001 Anti-Bribery Management System across business units. In 2022, the main entities achieving ISO 37001 certification comprised Keppel Infrastructure Qatar and Belgium, and Keppel Land India.

In 2022, Keppel continued to adopt an effective and balanced approach to risk management to optimise returns, while taking into consideration business risks and corporate sustainability. We focused on managing the global macro risks and mitigating the impact on business where possible. Cyber security risk continues to be one of our significant risks and we continuously enhance our technology controls to prevent and detect cyber attacks. We also focused on climate-related risks to improve monitoring and assessment of the impact of climate change on business operations and assets, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

#### Impact on SDGs



### Material Factor Economic Contribution to Society

#### Approach

Keppel creates value for all stakeholders through running a successful and resilient business, which provides good dividends for shareholders, jobs for communities, and tax revenue for governments. By growing our business as a provider of sustainability-related solutions, Keppel contributes to the economic advancement of society, while also advancing environmental sustainability.

#### Highlights

Keppel's business operations generate employment, opportunities for suppliers, products and services for customers, tax revenues for governments and dividends for shareholders.

In 2022, Keppel achieved a net profit of \$927 million. Total cash dividend for FY 2022 was 33.0 cents per share.

#### Impact on SDGs



### Material Factor Supply Chain Management

#### Approach

Keppel believes in building a resilient, responsible and diversified supply chain. We are committed to integrating sustainability criteria in the selection, monitoring and evaluation of suppliers. We also engage with suppliers to adopt sustainable and responsible business practices, so as to minimise social and environmental impacts as well as manage risks across our supply chains.

#### Highlights

All our suppliers are qualified in accordance with our requisition and purchasing policies and screened based on ESG criteria. Qualified suppliers are expected to sign and abide by Keppel's Supplier Code of Conduct, which is publicly available online.

Keppel worked closely with our customers and suppliers to mitigate the impacts of supply chain disruptions due to the pandemic, labour shortages and the global energy crisis.

Keppel has been progressively enhancing our identification and monitoring of the emissions generated by our supply chain. In 2022, we expanded our screening of Scope 3 emissions to cover all 15 categories, including those which are relevant to the Group's suppliers.

#### Impact on SDGs



As part of our efforts to enhance sustainability performance within our supply chain, Keppel Corporation also collaborates with UN Global Compact Network Singapore to provide carbon management training for the Group's suppliers from Small and Medium Enterprises.

# Material Factors

## People and Community

**Material Factor**

**Human Capital Management**

**Approach**

Keppel recognises that its people are fundamental to the Company’s performance. We seek to build a strong talent pool led by people-centric leaders. We are committed to promoting employee well-being, upholding fair employment practices, and empowering a diverse and engaged workforce.

Building an agile and collaborative workforce with experience across divisions and geographies, as well as strengthening people capabilities through driving a proactive learning culture and growing digital readiness are important in propelling the Company towards its Vision 2030 goals.

We believe that having a workplace that is committed to fair employment practices, upholding human rights principles, investing in people development and promoting staff well-being are key to building an organisation where employees are engaged and motivated to give their best.

Human resources is one of the strategic risks under our risk management framework. We place strong emphasis on attracting and developing our talent pool, strengthening succession planning and bench strength, as well as building and/or acquiring new organisational capabilities to ensure that we have the necessary skillsets to drive Keppel’s next phase of growth.

**Highlights**

The Group continued to conduct our annual Employee Engagement Survey, and performed well, with a score of 84% in 2022, higher than Mercer’s global average of 80%. 88% of our staff indicated that they are proud to work for Keppel.

Keppel is committed to being a fair employer. All our business units in Singapore have signed the Employers’ Pledge of Fair Employment Practices by the Singapore Tripartite Alliance for Fair & Progressive Employment Practices.

We continued to foster a positive learning culture with Keppel’s Global Learning Festival and encouraged employees to take charge of their careers through the Global Career Festival. In 2022, the Group achieved an average of more than 24 hours of training per employee, higher than the target of 20 hours. Regular performance conversations were also introduced between managers and employees to drive sustained employee engagement and performance.

To support holistic employee well-being, the Company organised various well-being initiatives, which include the Financial Well-Being Month, the Physical Well-Being Month, the Appreciation Month and the Mental Well-Being Month in March, June, August and October respectively.

In 2022, Keppel O&M’s entities in Singapore were audited and certified to be in conformance with the Dhaka Principles for Migration with Dignity for the responsible recruitment and employment of migrant workers.

In recognition of how we develop and engage with our workforce, Keppel Corporation was ranked as one of the World’s Best Employers 2022 by Forbes and was awarded the SkillsFuture Employer Award (Gold) 2022. Keppel Group was also re-certified as a Top Employer Singapore 2023 by the Top Employers Institute. In addition, Keppel was named one of Singapore’s Best Employers 2023 by The Straits Times, where the top 250 firms were shortlisted based on an independent study of the attractiveness of hundreds of Singapore-based organisations based on employee assessments.

**Impact on SDGs**



**Material Factor**

**Health & Safety**

**Approach**

Keppel is committed to providing a safe and healthy working environment. We believe in building a proactive safety culture and advocate for continuous improvements in health and safety standards, both in our operations and in the broader community. We also ensure high safety standards for our products and services to safeguard customer health and safety.

**Highlights**

Keppel places the highest priority on the health and safety of our stakeholders. The Company’s leadership sets the tone and leads by example in strengthening our safety culture.

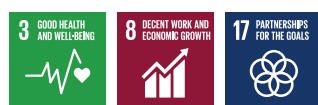
Recognising the pivotal role played by frontline staff in building our safety culture, we sharpened our focus in 2022 to engage and empower them to intervene and speak up when they encounter any unsafe act or practice.

The Group also made significant progress in leveraging technology to digitalise key HSE processes, including the reporting of hazards. In 2022, the total number of hazards reported via the mobile HSE application was significantly higher compared to the year before.

Underscoring our proactive approach in designing and building safe products, and safeguarding the health and safety of all our stakeholders, the Group developed guidelines in Design for Safety (DfS) and have since applied it to all major developments in Singapore and overseas.

Regrettably, despite our best safety efforts, the Group recorded three fatalities in two incidents at Keppel O&M’s shipyard in Singapore in 2022. We have investigated the incidents and put in place measures to prevent recurrence.

**Impact on SDGs**



## People and Community

### Material Factor Community Development

#### Approach

Keppel believes that the Company does well when the community does well. We aim to uplift and give back to communities wherever we operate, building lasting positive relationships and effective partnerships, including through staff volunteerism. We invest in worthy causes, focusing in particular on supporting education, caring for the underprivileged, and protecting the environment.

#### Highlights

In 2022, the Group invested around \$4.3 million in social investment spending and industry advancement, including close to \$1.9 million disbursed through Keppel Care Foundation, the Group's philanthropic arm. Since its establishment in 2012, Keppel Care Foundation has disbursed over \$52 million in support of worthy causes.

In April 2022, a new National Kidney Foundation (NKF) dialysis centre which was developed with a \$2 million donation from Keppel, was officially launched by Minister for Health, Mr Ong Ye Kung. Strategically co-located within the Yishun Community Hospital and adjacent to Khoo Teck Puat Hospital, it is the first NKF Dialysis Centre to be integrated within a hospital compound, giving patients ease of access to care and services.

In view of the trend of ageing populations and the increasing number of dementia patients, in 2022, Keppel pledged \$1 million over three years to Dementia Singapore to support the needs of persons with dementia and their caregivers.

We also launched the Living Well programme in Vietnam, in which Keppel Land and Keppel Infrastructure collaborated to provide clean drinking water for about 20,000 villagers.

In Shanghai, China, employees from Keppel Land China and Keppel Capital China collaborated with local organisations to deliver food items to the elderly and construction workers who had difficulty accessing food and other daily necessities during the COVID-19-related lockdowns.

Keppel also committed \$300,000 over three years to Gardens by the Bay to support public education tours on nature and sustainability, and supported the Singapore Environment Council's School Green Awards, which serves as a platform for students to develop and showcase their environmental efforts. In addition, Keppel Land extended the very well-received 'R.I.S.E. to the Challenge' public outreach programme, which aims to raise awareness on rising sea levels and the pressing need for climate action, for another two years.

Beyond financial support, Keppel staff also volunteer their time and services to the community. In 2022, Keppel Volunteers contributed more than 14,000 hours of community work, despite constraints imposed by the COVID-19 pandemic.

In 2022, Keppel Corporation was recognised as a Champion of Good for the fourth time by the National Volunteer and Philanthropy Centre since the award was launched in 2017. The biennial Champion of Good award recognises organisations that are exemplary in doing good while multiplying the impact of their corporate giving by engaging their partners and stakeholders.


#### Impact on SDGs



In April 2022, a new National Kidney Foundation (NKF) dialysis centre, which is strategically co-located within the Yishun Community Hospital and developed with a \$2 million donation from Keppel Care Foundation, was officially launched by Minister for Health, Mr Ong Ye Kung (fourth from right).

# TCFD Disclosures

GRI 3-3 | 2-14 | 201-2

 We support the Task Force on Climate-related Financial Disclosures (TCFD), and have started incorporating its recommendations in our reporting framework since 2020 to better articulate climate-related risks and opportunities that can have a financial impact on our businesses.

In this section, we describe how we identify, assess and manage climate-related risks and opportunities, with reference to the four key pillars recommended by TCFD. References to other sections of this Report have been made to provide further details.

Recommended Disclosure	Keppel's Approach	Page Reference
<p><b>Governance</b></p> <p>Describe the board's oversight of climate-related risks and opportunities.</p> <p>Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>Sustainability-related topics, including environmental and climate change issues, are regularly discussed by the Board which meets six times a year, and as warranted by circumstances.</p> <p>A Board Sustainability and Safety Committee (BSSC) was established in May 2022 to provide even greater focus on sustainability matters. It meets at least four times a year. Its roles include ensuring that the Group has in place an effective sustainability governance structure; reviewing the Company's sustainability strategy to ensure that they are relevant to evolving local and global sustainability trends; reviewing the processes for identifying, assessing and managing climate-related risks and opportunities; overseeing the adoption of the Company's sustainability goals as well as management's plans and progress towards achieving the targets, among others. The BSSC also reviews the Group's sustainability reporting and key sustainability-related disclosures.</p> <p>While the BSSC maintains broad oversight over sustainability issues, other Board Committees, namely the Audit, Nominating, Remuneration and Board Risk Committees, also address specific aspects of sustainability relevant to their respective committees.</p> <p>At the management level, sustainability issues are driven by the Management Executive Committee, chaired by Keppel Corporation's Chief Executive Officer (CEO), and whose members comprise the CEOs of key business units and the Chief Sustainability Officer (CSO). The committee meets every month and oversees the Group's strategy and performance, including sustainability and climate-related issues. This includes oversight of the implementation of the environmental sustainability policy and improving environmental performance.</p> <p>In addition, the Group Sustainability Working Committee, which is chaired by Keppel's CSO and comprises heads of corporate functions and representatives from across businesses units, monitors and executes the Group's sustainability efforts, including climate-related issues.</p> <p>The CSO coordinates and drives the Group's sustainability efforts. The CSO heads the Group Sustainability department, which manages different aspects of the Group's sustainability and climate-related efforts, including sustainability reporting. In 2022, a review of Keppel's sustainability reporting process was also conducted by Group Internal Audit to strengthen our procedures and controls.</p> <p>Environmental sustainability targets, including carbon emissions reduction, have been included in the performance appraisal of senior management across the Group, and account for 7.5% of the Company's performance scorecard.</p>	<p>Sustainability Management: pages 14 to 15</p>
<p><b>Strategy</b></p> <p>Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.</p> <p>Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.</p> <p>Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>Keppel's sustainability strategy involves both running our business sustainably, and making sustainability our business by creating solutions that help governments and our customers on their net zero journeys and contribute to climate action.</p> <p>We have set absolute carbon emissions reduction targets in line with the Paris Agreement's goal to limit global warming to 1.5°C. We are also increasing our focus on risks and opportunities associated with climate change over the short term (1 year), medium term (3-5 years) and long term (more than 5 years).</p> <p>We recognise that physical risks such as extreme weather conditions can cause damage to property and infrastructure and potentially lead to stranded assets, business disruptions as well as higher operating costs due to insurance costs, flood protection, damage recovery as well as higher cooling and heating needs.</p> <p>As the world progressively transits to a lower-carbon economy, transition risks such as policy, legal, technological and market changes may also pose varying levels of financial, operational and reputational risks.</p> <p>At the same time, climate change will also create new business opportunities. To enhance the Company's resilience amidst climate change and contribute to the global energy transition and decarbonisation efforts, we have been refocusing the Group's portfolio on solutions for a sustainable future. These include renewables, clean energy and environmental solutions, green buildings and data centres, sustainable urban renewal, district cooling, and waste-to-energy (WTE) solutions.</p>	<p>Climate Action and Environmental Management: pages 30 to 43</p>



Recommended Disclosure	Keppel's Approach	Page Reference
<b>Strategy</b>	<p>In 2022, the Group announced about \$2.8 billion worth of energy &amp; environment and sustainable urban renewal-related investments, jointly undertaken by Keppel together with the private funds and/or business trust managed by Keppel Capital.</p> <p>We also expanded our business in sustainability-related solutions during the year. These include commencing Singapore's first renewable energy import, developing Singapore's first hydrogen-ready power plant, and gearing up for the low-carbon economy through exploring green ammonia and green hydrogen solutions with international partners.</p> <p>The Group is actively pursuing opportunities to provide solutions which can mitigate climate-related risks. Leveraging our technology and capabilities, we are exploring greener solutions such as energy-efficient floating data centres, as well as climate-resilient nearshore urban developments, or "floating cities", which can address the threat of rising sea levels.</p> <p>To ensure that the Group's projects fulfil stringent green building rating standards, Keppel Land invests up to an additional 4% green premium in construction cost. As at end-2022, Keppel Land has invested almost \$190 million<sup>1</sup> cumulatively on green building expenditure and currently has a total of 92 Building and Construction Authority (BCA) Green Mark-certified properties in Singapore and overseas.</p> <p>To strengthen Keppel's resilience and mitigate against transition risks such as tougher climate legislation and higher carbon prices, Keppel has implemented a shadow carbon price (SCP) in the evaluation of new investment decisions. The SCP allows us to better understand the carbon footprint of our business activities and factor in the possible impact of future carbon prices as well as avoid potential stranded assets, while encouraging the adoption of mitigation measures and technologies, and channelling its investments towards initiatives and innovations that protect the environment. We implemented the SCP in 2020, starting at US\$20 per tonne of carbon dioxide equivalent (tCO<sub>2</sub>e), with progressive increase to US\$50/tCO<sub>2</sub>e over time.</p> <p>Management also took into consideration climate-related issues in the Company's financial reporting and there was no material impact in FY 2022.</p> <p>In addition, Keppel is leveraging its green credentials and sustainability efforts to tap green and sustainability-linked financing to support new investments. The Group has collectively secured about \$3.1 billion in green and sustainability-linked financing facilities since 2019, and plans to set up a Sustainable Financing framework by 2024.</p>	
<b>Risk Management</b>	<p>Climate change has been identified as a strategic risk which is monitored by the Board Risk Committee (BRC) under Keppel's Enterprise Risk Management (ERM) framework.</p> <p>The Group's Sustainability Risk Management framework is integrated within the ERM framework and guides Group entities in identifying, assessing and managing sustainability-related risks and opportunities. The ERM framework lays out the governance mechanisms and principles, policies and processes, and system pertaining to how Group entities should identify, assess, mitigate, communicate, and monitor or escalate significant risk matters. This includes climate change and environmental management considerations, as well as third-party-related risks from vendors and suppliers.</p> <p>The Group Risk &amp; Compliance department, working in conjunction with the business teams, supports management in applying the ERM framework to ensure that significant risks, including climate change-related risks across the Group are assessed and adequately mitigated.</p> <p>As part of sustainability risk management, we regularly assess climate-related risks and opportunities and strengthen our organisational capabilities. Management and risk teams across business units drive and coordinate Group-wide activities and initiatives. These are facilitated by regular meetings to cascade risk policies or standards, and ensure that pertinent risks, including climate-related risks, are identified, assessed and mitigated in a timely manner.</p> <p>Risk assessments are performed at each business unit and agreed with senior management before being consolidated to form the Group risk assessment. Further assessments are performed at the Group, and the mitigation plans, where applicable, are provided to the Board and BRC at quarterly meetings. This is complemented by education and awareness, resources and expertise, and assessment or feedback, which are ongoing in nature. We also continually improve our risk processes, taking reference from the latest industry developments and best practices.</p> <p>In 2022, we conducted an in-depth Group-wide scenario planning exercise with support from external advisors, to better assess potential risks from several global macroeconomic, geopolitical and climate-related scenarios, and developed mitigation plans where required. Further details on the Group's scenario planning exercise can be found on pages 28 to 29 of this report.</p>	Risk Management: pages 58 to 63

<sup>1</sup> Green building expenditure is based on the cumulative amount incurred since 2008.

Recommended Disclosure	Keppel's Approach	Page Reference
<b>Risk Management</b>	<p data-bbox="368 338 659 360"><b>Climate-related Physical Risks</b></p> <p data-bbox="368 365 1294 506">The Group completed a high-level physical risk assessment which evaluated the potential impact of seven climate-related hazards<sup>1</sup> on 50 key assets globally in 2021. Scenarios used were based on Representative Concentration Pathway (RCP) 2.6, RCP 4.5 and RCP 8.5<sup>2</sup>, with projections for 2030 and 2050. These assets include power plants, water and waste management facilities, commercial buildings, residential projects and townships, as well as data centres. Based on the assessment, the key physical risks faced by the Group's assets are sea-level rise, water stress and heatwaves.</p> <p data-bbox="368 533 1294 792">To further strengthen the climate resilience of its businesses, the Group conducted a quantitative scenario analysis in 2022 to assess the potential financial impact of climate-related physical risks on 62 key assets globally, which were identified based on asset value and strategic importance to the business. An external consultant conducted a context-specific assessment of the physical impacts of climate change for each asset across three climate change scenarios of Shared Socioeconomic Pathways (SSP) 1-2.6, 2-4.5 and 5-8.5<sup>3</sup>, over three time periods of 2030, 2050 and 2070. A longer timeframe was chosen as such climate-related issues often manifest themselves over the medium and longer term. The analysis took into consideration the value at risk from potential physical damage. Following the initial assessment, we will continue to refine the analysis, taking into account mitigation and adaptation measures undertaken by the authorities in different countries as well as specific adaptation measures implemented by Keppel's business units.</p> <p data-bbox="368 819 1294 1104">Keppel's business units have proactively implemented various context-specific adaptation measures to limit the impact of physical climate risks. For instance, in Singapore, Keppel Infrastructure raised the platform level for the new Keppel Sakra Cogen Plant to up to 5 metres above the Singapore Height Datum<sup>4</sup>. Keppel Land installed flood barriers, more drainage outlets as well as energy efficient cooling systems at its developments to adapt to the risks of rising sea levels, floods and heatwaves. In Vietnam, besides raising the platform level at the Saigon Centre commercial development, flood drills are conducted annually as part of business management plans. Keppel Data Centre has included a technical due diligence study, which includes criteria such as soil conditions, power/water availability, and risk of natural disasters such as floods, earthquakes and landslides, as part of its investment due diligence process. Designs for the Group's data centres also take into consideration risk factors including power and water shortage, with measures such as redundancies and storage in place to provide backup in the event of such incidents.</p> <p data-bbox="368 1131 1294 1272">The Group is also actively pursuing opportunities to harness its capabilities to provide sustainability solutions, which can help to reduce climate-related risks for its customers and communities. Keppel has the technology and capabilities to develop climate-resilient nearshore developments, or "floating cities", which can address the issues of land scarcity and rising sea levels in coastal areas. Keppel is exploring with the relevant authorities on how such nearshore developments can be built in Singapore. Over time, these same capabilities can potentially also be applied in other coastal cities.</p> <p data-bbox="368 1299 675 1321"><b>Climate-related Transition Risks</b></p> <p data-bbox="368 1326 1294 1489">Besides physical risks, the Group also embarked on a qualitative assessment of the climate-related transition risks in 2022. An analysis was conducted on the risks and opportunities to the Group's businesses in relation to the global transition to a low-carbon economy. The impacts resulting from the transition were viewed through the dimensions of technology, regulations and policies, market forces and reputation. Three climate scenarios were used, namely SSP3-7.0, SSP2-4.5, and International Energy Agency's (IEA) Net Zero Emissions (NZE) scenario<sup>5</sup>, over the short term (1 to 3 years), mid term (up to 2030) and long term (up to 2050).</p> <p data-bbox="368 1516 1294 1608">Based on the study, evolving regulations on climate taxonomies; higher carbon taxes, stricter regulations and uncertain price developments in carbon markets and Renewable Energy Certificates leading to higher cost of decarbonisation efforts; as well as higher expectations on climate disclosures, decarbonisation plans and targets, including climate litigation risks, were identified as potential risks to the Group.</p> <p data-bbox="368 1635 1294 1776">At the same time, market demand for new low-carbon products and services, innovation and improvements in low-carbon technologies, as well as higher expectations of companies on decarbonisation will create opportunities for Keppel. These are areas in which Keppel is already taking active steps to both seize opportunities and contribute to sustainable development, for example, through the import of renewable energy into Singapore and the joint study with the National Environment Agency on the feasibility of carbon capture for selected WTE plants in Singapore.</p> <p data-bbox="368 1803 1294 1944">Beyond managing climate-related risks and opportunities under the ERM framework, the majority of the Group's operational business units are certified to the ISO 14001 Environmental Management Systems standard, which guides how we identify, manage, monitor and control environmental issues. Keppel Infrastructure and the data centres that we operate in Singapore are also certified to the ISO 50001 Energy Management Systems standard, which guides us in reducing energy consumption, carbon footprint and costs by promoting sustainable energy usage.</p> <p data-bbox="368 1971 1294 2087">At the business unit level, various policies and systems are in place to ensure that ESG-related risks and opportunities are assessed and addressed adequately. For instance, Keppel Land has a Carbon Management Plan comprising initiatives and programmes to reduce carbon emissions; a set of Responsible Design Values for all of its new developments in Singapore and overseas to deliver the best standards in sustainability, liveability, quality and aesthetics; and Environmental Operational Plans for the management of its completed properties.</p>	Physical and Transition Risks: pages 62 to 63

Recommended Disclosure	Keppel's Approach	Page Reference
<p><b>Metrics and Targets</b></p> <p>Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.</p> <p>Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p> <p>Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.</p>	<p>We have committed to halve our absolute Scope 1 and Scope 2 carbon emissions by 2030, compared to 2020 levels, and achieve net zero by 2050, in line with the 1.5°C scenario. We measure and report our GHG emissions in accordance with the GHG Protocol, using the operational control approach. We expanded our tracking of Scope 3 emissions from 10 categories in 2021 to all 15 categories in 2022, and are working with our supply chain and investments to improve energy efficiency and reduce emissions wherever possible.</p> <p>We have laid out a climate action roadmap to achieve our emissions reduction goals and contribute to global decarbonisation efforts. Further details on the Group's decarbonisation plans can be found on pages 30 to 31 of this report.</p> <p>In 2022, the Group achieved an absolute reduction of 17.6% in Scope 1 and Scope 2 emissions to 142,004 tCO<sub>2</sub>e from our 2020 baseline of 172,282 tCO<sub>2</sub>e. Scope 1 emissions was 29,420 tCO<sub>2</sub>e, down 30.7% from 42,476 tCO<sub>2</sub>e in 2020. Scope 2 emissions also dropped by 13.3% to 112,584 tCO<sub>2</sub>e in 2022. Keppel's Scope 3 emissions was 6,111,610 tCO<sub>2</sub>e in 2022, an increase from 2,941,163 tCO<sub>2</sub>e in the preceding year as the Group expanded its coverage of Scope 3 emissions from 10 to all categories relevant to the Group.</p> <p>We have also set a target for 50% of the Group's electricity use to be from renewables by 2025, with a view to reach 100% by 2030. In 2022, Keppel's renewable energy consumption made up 12.6% of total electricity consumption, higher than the 9.3% in 2021.</p> <p>On top of the Group-wide carbon emissions reduction target, Keppel encourages its business units to pursue even higher standards wherever possible, in line with their respective sectoral contexts and unique capabilities.</p> <p>Keppel Land has set GHG emissions reduction targets in accordance with the Science-Based Targets initiative (SBTi). It has committed to reduce its absolute Scope 1 and Scope 2 emissions by 100%, and Scope 3 emissions from purchased goods and services by 20% per square metre, by 2030 from its 2020 base year.</p> <p>M1 has adopted the Information and Communication Technology (ICT) Sector Guidance and set SBTi emissions reduction targets in line with the 1.5°C pathway, while Keppel Data Centres aims to achieve net zero Scope 1 and Scope 2 emissions for all its new data centre assets in Singapore by 2030.</p> <p>Keppel Infrastructure aims to reduce the carbon emissions intensity of the Group's power portfolio and achieve net zero emissions by 2050.</p> <p>In addition, in 2022, all Real Estate Investment Trusts (REITs) managed by Keppel Capital announced absolute Scope 1 and 2 emissions reduction targets aligned to the 1.5°C scenario, while Keppel Infrastructure Trust announced emissions intensity reduction targets.</p> <p>We have set a target to grow our portfolio of renewable energy assets to 7 GW by 2030. As at end-2022, Keppel's announced portfolio of renewable energy assets has more than doubled to 2.6 GW, including projects under development, compared to 1.1 GW at end-2021.</p> <p>We have also set Group-wide targets to reduce our water and waste intensity by 20% and 10% respectively from 2019 levels by 2030. As at end-2022, the Group's efforts to reduce water consumption and waste generation led to a 5.7% weighted average reduction in water intensity, and a 41.9% weighted average reduction in waste intensity, relative to our 2019 baseline. We will be reviewing our waste target following the divestment of Keppel O&amp;M which accounted for more than 80% of the Group's waste in 2022.</p> <p>Environmental targets that the Group has set, such as reducing carbon emissions as well as waste and water intensity, contribute to the protection of nature and biodiversity. In 2022, we refined our Environmental Sustainability Policy, to include our commitment to practise good stewardship of the natural environment by avoiding disruption to sites containing critical biodiversity, and applying the necessary mitigating measures, when operating in or near such areas. We have also committed to avoiding deforestation as far as possible and, where unavoidable, replanting trees to achieve net-zero deforestation.</p>	<p>Climate Action and Environmental Management: pages 30 to 43</p>

<sup>1</sup> The seven climate-related hazards are sea level rise, heatwave, water stress, flood, wildfire, coldwave and hurricane.

<sup>2</sup> Based on GHG concentration trajectory adopted by the Intergovernmental Panel on Climate Change (IPCC), where RCP 2.6 is a pathway that limits global warming to below 2°C, while RCP 4.5 and RCP 8.5 are intermediate and worst-case climate change scenarios.

<sup>3</sup> Shared Socioeconomic Pathways are based on the IPCC Sixth Assessment Report, where the SSP1-2.6 scenario has very low GHG emissions and global warming of below 2°C in 2100, while SSP2-4.5 and SSP5-8.5 refer to the intermediate and very high GHG emissions scenarios respectively.

<sup>4</sup> Includes minimum platform level of 4 metres above the Singapore Height Datum (SHD). The SHD was introduced by Singapore Land Authority in 2015 and refers to the fixed datum surface set at 0.000 metres of Singapore's historical mean sea level.

<sup>5</sup> The SSP3-7.0 scenario has very high GHG emissions and global warming of 2.8°C to 4.6°C by 2100, while the SSP2-4.5 refers to the intermediate GHG emissions scenario with global warming of 2.1°C to 3.5°C by 2100. IEA's NZE is a scenario that combines socioeconomic conditions with a declining emissions pathway to reach Net Zero by 2050, resulting in global warming of 1°C to 1.8°C by 2100.

# Scenario Planning

We are building a future-ready company, identifying risks and opportunities, including those related to climate change and the energy transition, as we execute Keppel's Vision 2030 plans.

## Planning for an Uncertain World

Amidst an uncertain global environment characterised by heightened geopolitical tensions, slowing economic growth, financial volatility and increasingly frequent extreme climate events, Keppel conducted a scenario planning exercise in 3Q 2022 to test and enhance the resilience of Keppel's Vision 2030 strategy.

The scenario planning exercise, conducted based on an established scenario planning methodology, involved Keppel Corporation's senior management, as well as the leadership teams in the different business units. The scenarios as well as the strategic responses to the scenarios were then presented and discussed at Keppel Corporation's Board Strategy Offsite in end-September 2022.

## Three Alternative Scenarios

A set of three scenarios was developed using an inductive methodology. At a broad level, each scenario was defined in terms of a range of outcomes in the 2030 timeframe along three primary dimensions: (i) the geopolitical and economic order; (ii) the climate change response and energy transition landscape; and (iii) the global financial environment.

In terms of the geopolitical dimension, the scenarios envisaged a range of plausible international political configurations and dynamics ranging from a deeply decoupled and conflictual world, to a multipolar environment characterised by greater stability and more balanced global growth. Beyond

the ongoing conflict in Ukraine, the scenarios also explored the possible implications of an escalation in Cross-Strait tensions. In terms of the global financial environment dimension, the scenarios depicted a range of alternative levels and geographic patterns of economic growth, as well as varying degrees of financial system stability, in particular with respect to monetary policy and its various potential effects.

On climate change and the energy transition, the scenarios considered a range of potential global warming trajectories, alternative speeds of the energy transition, the nature of the global response to climate change, as well as varying degrees and forms of climate-related physical and transition risks. One of the three scenarios was based on the relatively benign 1.5°C global warming trajectory, corresponding to the range of potential temperature changes by 2081-2100 in SSP1-2.6<sup>1</sup>. To ensure rigorous testing of the resilience of the Group's strategy and risk management, the other two scenarios were built on 3.5°C and 4.0°C global warming trajectories<sup>2</sup>, which envisaged significantly higher climate risks, and more frequent and extreme climate-related events. In terms of the global response to climate change, the scenarios explored a range of possibilities, from unified global mitigation efforts to disparate adaptation-centred efforts.

While the full impacts of the scenarios, especially those related to climate change, may manifest themselves more clearly over

<sup>1</sup> IPCC AR6 WGII Technical Summary.

<sup>2</sup> The global warming trajectories in these two scenarios are consistent with the SSP3-7.0 and SSP5-8.5 scenarios respectively.



Keppel is well placed to provide solutions to help its customers and stakeholders on their journeys to net zero.

a longer period, this exercise was focused on developing a set of plausible scenarios that represent a range of future operating conditions that Keppel may face over the next 5-10 years, and which would be particularly relevant to Keppel as the Group executes its Vision 2030. The scenarios did not assign probabilities to specific future conditions, but rather served to generate inputs to the Board and management when considering the Company's strategy, while also identifying risks and opportunities.

**Responding to Uncertainty**

Beyond specific responses to individual scenarios, the Group also identified and considered a range of 'no regret' actions that would be likely to generate the greatest expected strategic value across all three scenarios, in order to strengthen the future-readiness of the group strategy. These robust actions included, for example,

raising the Group's fund-raising capabilities, anticipatory regulatory awareness, and strengthening the Group's networks of investors across its targeted markets, in line with Keppel's Vision 2030 plans to be a leading global asset manager and operator. Through the review of alternative plausible geopolitical scenarios, the Group also discussed its long-term human resource requirements and the importance of strengthening talent with relevant market knowledge in different geographies.

On the climate change and energy transition front, across all three scenarios, it was envisaged that there would be growing demand for renewables, clean energy, decarbonisation solutions and climate-resilient infrastructure – sectors which Keppel already operates in and which represent considerable growth opportunities for the Group. The importance

of incorporating climate-related risk assessment in future strategies was emphasised across scenarios, whether in terms of decarbonising the Group's operations, assessing specific acquisition targets, or evaluating the commitment and capacity of local governments to address physical climate risks when making long-term investment decisions. Importantly, Keppel also discussed how the Group could leverage its unique strengths and track record to offer solutions to help its customers and stakeholders on their journeys to net zero.

Beyond the initial scenario analysis exercise, a set of qualitative and quantitative signposts was also identified to facilitate the monitoring of future operating conditions, thus helping the Company to take suitable anticipatory actions and adjust its strategy in response to the evolving landscape.



# Keppel's Decarbonisation Strategy

Keppel's approach towards decarbonisation reflects the two prongs of the Group's sustainability strategy – to run our business sustainably, and make sustainability our business by creating solutions that contribute to sustainable development and climate action.

## Running Our Business Sustainably

Keppel has committed to halve our Scope 1 and 2 carbon emissions by 2030, compared to 2020 levels, and achieve net zero by 2050, in line with the Paris Agreement's goal to limit global temperature increase to 1.5°C compared to pre-industrial levels. In addition, Keppel aims for 50% of the Group's electricity use to be from renewables by 2025, with a view to reach 100% by 2030.

Keppel has expanded our tracking of Scope 3 emissions to cover all 15 relevant categories, and is working with its supply chain and portfolio of investments to improve energy efficiency and reduce emissions where possible.

## Initiatives by Business Units

Keppel Land and M1 have announced Science-Based Targets Initiative (SBTi)-validated emission reduction targets, consistent with the reductions needed to limit global warming to 1.5°C.

In 2022, Keppel Capital became a signatory of the United Nations-supported Principles for Responsible Investment (UNPRI). During the year, all the Real Estate Investment Trusts (REITs) managed by Keppel Capital announced absolute Scope 1 and 2 emissions reduction targets aligned to the 1.5°C scenario, while Keppel Infrastructure Trust announced emissions intensity reduction targets.

Keppel Data Centres aims to achieve net zero Scope 1 and 2 emissions for all its new data centre assets in Singapore by 2030.

Keppel Infrastructure aims to reduce the emissions intensity of the Group's power portfolio and achieve net zero emissions by 2050. It will work towards decarbonising the Group's power business, including through upgrading or retiring old plants, investing in renewables, and planting low or zero carbon power generation technology when they are available and commercially viable.

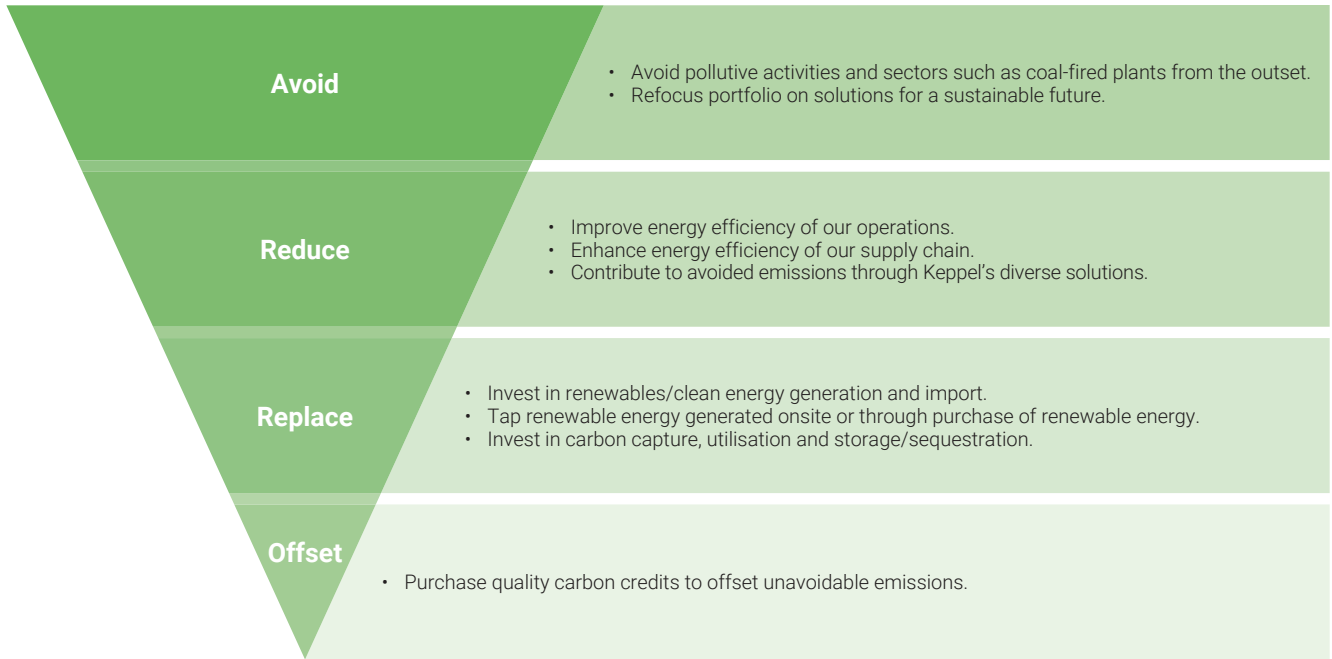
## Making Sustainability Our Business

Net zero commitments made by governments and companies around the world are creating strong demand for renewables, clean energy and decarbonisation solutions. These are areas where Keppel has strong capabilities and where the Group is working with our partners and customers to contribute to a greener world. Key initiatives in 2022 include:

- Investing \$2.8 billion together with private funds and/or business trust managed by Keppel Capital in sustainability-related solutions.
- Growing the Group's portfolio of renewable energy assets from 1.1 GW in end-2021 to 2.6 GW by end-2022<sup>1</sup>.

<sup>1</sup> On a gross basis and includes projects under development.

## Keppel's Carbon Mitigation Hierarchy



- Commencing the first import of renewable energy into Singapore through the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project.
- Commencing the development of Singapore's first hydrogen-ready power plant, the Keppel Sakra Cogen Plant.
- Signing of a Memorandum of Understanding between Keppel Infrastructure and Singapore's National Environment Agency to conduct a joint study on the feasibility of carbon capture at Singapore's waste-to-energy plants.
- Exploring the development of green hydrogen and ammonia projects and large-scale carbon capture, utilisation and sequestration in Singapore.
- Pivoting Keppel Land from a traditional developer model to focus on sustainable urban renewal.
- Exploring the development of climate-resilient nearshore developments or "floating cities".
- Exploring innovative proposals to reduce the carbon footprint of data centres, including floating data centres and green data centre parks.
- Launching the Keppel Sustainable Urban Renewal Fund to enhance value, improve sustainability metrics and lower the carbon footprint of older commercial buildings.



Keppel Bay Tower is the first commercial building in Singapore to be certified as a BCA Green Mark Platinum Zero Energy building. PV panels installed on the roof of the building can generate an energy yield of about 100,000 kWh per annum.

# Climate Action and Environmental Management

We are committed to climate action, improving resource efficiency and reducing our environmental footprint.

## Performance Overview

GRI 3-3



### 2022 Targets

- Work towards absolute Scope 1 and Scope 2 carbon emissions reduction target.
- Progressively expand coverage to include all 15 categories of Scope 3 emissions.
- Continue implementing recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- Enhance and expand climate risk assessment by conducting scenario analysis to assess the financial impact of climate-related physical risks on the Group.
- Work towards water and waste reduction targets.



### 2022 Performance

- Achieved 17.6% reduction in absolute Scope 1 and Scope 2 carbon emissions from 2020 baseline.
- Expanded tracking of Keppel's Scope 3 emissions from 10 to all 15 categories.
- Increased portfolio of renewable energy assets to 2.6 GW<sup>1</sup> as at end-2022.
- Achieved 5.7% weighted average reduction in water intensity from 2019 baseline.
- Achieved 41.9% weighted average reduction in waste intensity from 2019 baseline.
- Conducted scenario analysis of potential financial impact of climate-related physical risks and qualitative scenario analysis of transition risks and opportunities for the Group.



### 2023 Targets

- Work towards absolute Scope 1 and Scope 2 carbon emissions reduction target.
- Continue to enhance monitoring and reporting on all categories of Scope 3 emissions relevant to the Group.
- Quantify and report on avoided emissions arising from Keppel's solutions.
- Continue efforts to conserve water and minimise waste.
- Conduct further analysis on the financial impact of climate-related physical and transition risks and opportunities on the Group in line with TCFD recommendations.



### Longer Term Targets

- Halve Scope 1 and Scope 2 carbon emissions by 2030 and achieve net zero Scope 1 and Scope 2 emissions by 2050.
- Aim for 50% of the Group's electricity use to be from renewable energy sources by 2025, with a view to reach 100% by 2030.
- Achieve 20% reduction in water intensity by 2030 from 2019 levels.
- Grow portfolio of renewable energy assets to 7 GW by 2030.

<sup>1</sup> On a gross basis and includes projects under development.





Keppel Corporation is expanding into the wind energy business, alongside Keppel Infrastructure Trust, through joint investments in offshore and onshore wind energy assets in Europe.

## Overview

GRI 3-3

Frequent extreme climate events have increased global awareness of the risks posed by climate change and accelerated the calls for urgent and concerted international action.

At the United Nations Climate Change Conference (COP27) in Egypt, the international community reaffirmed its commitment to the Paris Agreement, strengthened action to cut greenhouse gas (GHG) emissions and adapt to the impacts of climate change, and agreed to provide support for developing countries, including financial assistance through the Loss and Damage Fund.

In October 2022, the Singapore Government raised the country's national climate target to achieve net zero emissions by 2050 as part of its long-term Low-Emissions Development Strategy, and reduce emissions to around 60 MtCO<sub>2</sub>e in 2030 after peaking emissions earlier, as part of its 2030 Nationally Determined Contribution commitment. These are contingent on technological maturity and effective international cooperation.

Keppel is committed to support the efforts by the international community and the Singapore Government to address climate change and launched a series of initiatives in 2022 in pursuit of these goals.

As part of Keppel's Vision 2030, we are refocusing our portfolio on solutions for a sustainable future. In 2022, we actively expanded our business in Vision 2030 growth areas such as renewables, clean energy and environmental solutions.

We are also focused on running our business in an environmentally sustainable manner and working to reduce the environmental impact of our operations in the areas of carbon emissions, energy, water, effluents and waste.

## Report Boundary

GRI 3-3

Our approach in accounting for GHG emissions is aligned with the operational control<sup>2</sup> approach under the GHG Protocol, which determines the organisational boundary and the way Scope 1, 2 and 3 emissions are calculated for the Group.

We account for 100% of Scope 1 and 2 emissions, and all relevant categories of Scope 3 emissions from entities over which we have operational control. These include the Group's key subsidiaries, namely Keppel Capital, Keppel Infrastructure, Keppel Offshore & Marine (Keppel O&M, which has been divested with effect from 28 February 2023), Keppel Land, Keppel Telecommunications & Transportation and M1<sup>3</sup>.

For entities where the Group does not have operational control, the associated emissions are reported as part of our Scope 3 emissions, under Category 15 (Investments). These include Keppel's stakes in Keppel REIT, Keppel DC REIT, Keppel Infrastructure Trust and Keppel Pacific Oak US REIT, which are managed by Keppel Capital; Sino-Singapore Tianjin Eco-City Investment and Development; MET Group and Antina, among others<sup>4</sup>.

In 2022, we also expanded our Scope 3 coverage to include our investments in several private funds managed by Keppel Capital, namely Keppel Asia Infrastructure Fund (KAIF)<sup>5</sup>, Alpha Data Centre Fund, Alpha Asia Macro Trends Funds III & IV and Keppel MMP Indonesia Logistics Fund. Keppel Data Centre Fund II and Keppel Vietnam Fund have not been included as assets under these funds are still under development.

For 2022, we completed the screening of all 15 categories of Scope 3 emissions. Through the exercise, we are better able to identify the key activities responsible for the Group's carbon footprint and consider the most effective measures to reduce Scope 3 emissions.

Our Scope 3 data does not include emissions from certain private companies where the information was not publicly available at the time of publication of the Sustainability Report.

<sup>2</sup> Operational control is defined in the GHG Protocol as having the full authority to introduce and implement operating policies in the company.

<sup>3</sup> Keppel maps its sustainability data against the operations of its business units depicted on page 12 of this report, rather than the full list of legal entities and holding companies on pages 218 to 226 of Keppel's Annual Report 2022, which may include investment holding companies, and holding companies of projects that have not yet commenced.

<sup>4</sup> Other entities under Scope 3 Category 15 (Investments) include Floatel, Dyna-Mac, Cleantech Solar Asia, M1 Network, Keppel Infrastructure's joint ventures in Tianjin Eco-City, as well as data centres in the Netherlands, Malaysia, Indonesia and China, including Hong Kong.

<sup>5</sup> Keppel Asia Infrastructure Fund (KAIF) has stakes in assets including Eco Management Korea, 800 Super Waste Management, Keppel Sakra Cogen Plant and GIMI floating liquefied natural gas (FLNG) facility, which are either recently acquired or still under development. Hence emissions from these assets have not been included; only emissions from Cleantech Solar Asia was included for 2022.

## Climate Action and Environmental Management

### Management Approach

GRI 3-3

We are committed to doing our part to combat climate change.

We have defined the kinds of pollutive sectors we will not go into, such as coal-fired plants; the businesses we will maintain; and those which we will focus more on, such as renewables, clean energy and decarbonisation solutions.

To scale up quickly to capture opportunities arising from the global energy transition, we will seek opportunities to acquire assets and stakes in established operating platforms. We are also looking at developing solutions for carbon capture, utilisation and storage (CCUS), as well as new energy vectors, such as green ammonia and hydrogen.

We engage non-government organisations and think tanks to support climate initiatives aligned to the Paris Agreement, including the United Nations Global Compact, Global Compact Network Singapore, GRI Singapore and the Singapore Low Carbon Network.

As a participant of the United Nations Global Compact, we are committed to upholding its principles, including taking a precautionary approach to environmental challenges, promoting greater environmental responsibility, and encouraging the development and diffusion of environmentally-friendly technologies.

### Climate Change Mitigation and Adaptation

GRI 3-3 | 302-5

#### Renewable Energy

In 2022, Keppel grew its renewables portfolio from 1.1 GW to 2.6 GW<sup>1</sup>, as it gains ground on its 7 GW target by 2030.

Keppel Infrastructure formed Keppel MET Renewables, a joint venture with Swiss-based MET Group, to pursue and invest in both greenfield and brownfield solar and onshore wind assets across Western Europe. Keppel MET Renewables was seeded with an initial portfolio of 213 MW of solar projects in Italy, and has a target to scale up to at least 1 GW of operating and ready-to-build renewable energy projects.

As part of the 2.6 GW portfolio, Keppel co-invested approximately \$679 million in onshore and offshore wind energy assets across Germany, Norway and Sweden, alongside Keppel Infrastructure Trust. The investments will provide Keppel not only with stable recurring income,

but also a strong deal flow pipeline in well-established markets in the Nordic countries and the United Kingdom.

In Asia, Keppel, along with KAIF and KAIF's co-investor, increased their stake in Cleantech Solar Asia, the asset company of a leading solar energy platform from 25.5% to 75.5%. With solar assets located in India and ASEAN, the platform is expected to benefit from the growing demand for renewable energy in the region.

Keppel is also pioneering cross-border power trade of renewable energy into Singapore, with the commencement of the nation's first import of hydropower under the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project. As at end-2022, more than 180 GWh of electricity had been successfully transmitted into Singapore's power grid. In addition, Keppel Infrastructure is pursuing other renewable energy opportunities and cross-border interconnections with Cambodia, Lao PDR and Indonesia.

Other opportunities are in the pipeline for Keppel Infrastructure to scale up its offerings in the renewable energy sector. It was awarded a grant from the Energy Market Authority and JTC Corporation to pilot Singapore's first membrane-based nearshore floating solar photovoltaic system, which is designed to harness solar energy reliably amid rough sea conditions. Keppel Infrastructure is also collaborating with the National University of Singapore and Nanyang Technological University to develop a first-of-its-kind floating hybrid renewable energy system to harness solar, wind, and tidal energy for continuous power generation.

In 2022, Keppel Renewable Energy<sup>2</sup> (KRE) entered into late-stage development for its flagship 500+ MW solar project in Queensland, Australia. KRE has also been collaborating with Keppel Data Centres to explore the import of renewable energy from Indonesia.

#### Sustainable Energy and Environmental Solutions

The net zero commitments made by governments and companies around the world are driving strong demand for sustainable energy and environmental solutions. These are areas where the Group has strong capabilities and a proven track record, and where we can help our customers make the transition to net zero.

The Group is at the forefront of efforts to decarbonise Singapore's power generation sector. Keppel Infrastructure is building the nation's first hydrogen-ready and most advanced combined cycle gas turbine power plant. When completed in 2026, the 600 MW Keppel Sakra Cogen Plant will be the most energy-efficient power plant in Singapore, capable of saving up to 220,000 tCO<sub>2</sub>e per year, as compared to Singapore's average operating efficiency for equivalent power generated. In line with Keppel's asset-light business model, the Keppel Sakra Cogen Plant is intended to be owned by Keppel Energy and KAIF.

A high efficiency (HE) upgrade for a generating unit in the Keppel Merlimau Cogen Plant, the first HE upgrade in Southeast Asia, was completed in 2022. Following the upgrade, the unit is delivering improved efficiency and flexibility, while reducing its fuel consumption, carbon footprint, and environmental impact.

Keppel Infrastructure has positioned itself to capture the demand for decarbonisation in Singapore and around the region through its sustainable Energy-as-a-Service (EaaS). The effectiveness of the sustainable EaaS concept is demonstrated in the retrofitted *Keppel Infrastructure @ Changi*, which showcases Keppel's ability to blend innovation and sustainability into a value-added energy service. *Keppel Infrastructure @ Changi* houses Keppel Infrastructure's intelligent operations nerve centre, which harnesses smart technologies, such as artificial intelligence and IoT to streamline processes, improve productivity, and enhance the reliability of Keppel's assets and operations. The building is expected to yield about 600,000 kWh/year of renewable energy, more than double of the building's consumption, earning it the highest accolade of Green Mark Platinum Positive Energy by the Building and Construction Authority (BCA)<sup>3</sup>.

In addition, the Group continued to expand its energy-efficient district cooling services. The construction of the district cooling systems in Bulim Phase 1 of the Jurong Innovation District in Singapore and in the Sam Yan commercial area in Bangkok are progressing well.

Gearing up for the low-carbon economy, the Group explored partnerships in the low-carbon ammonia/hydrogen, CCUS and decarbonisation spaces. It signed a Memorandum of Understanding with Greenko, one of India's leading renewable

<sup>1</sup> On a gross basis, including projects under development.

<sup>2</sup> Keppel Renewable Energy has been integrated under Keppel Infrastructure with effect from 1 March 2023 to optimise synergies.

<sup>3</sup> *Keppel Infrastructure @ Changi* is the first building in Singapore to receive the Green Mark Platinum Positive Energy certification under the new BCA Green Mark 2021 scheme which raises environmental standards in energy performance and places greater emphasis on other important sustainability outcomes, such as enhancing a building's resilience to climate change, adopting smart technologies and creating healthier environments for building users. A Green Mark Platinum Positive Energy building has at least 115% of its energy consumption, including plug load, supplied from on-site renewable sources.



Keppel Infrastructure @ Changi is Singapore's first Green Mark Platinum Positive Energy building under the new and more stringent BCA Green Mark scheme.

energy companies, to explore green ammonia and renewable opportunities to meet the growing demand for low-carbon energy in India, Singapore and globally. It also entered into a joint study with Pertamina Power Indonesia and Chevron New Energies to explore the development of selected green hydrogen and green ammonia projects using geothermal energy located primarily in Sumatera, Indonesia. During the year, Keppel Infrastructure formed a consortium with Air Liquide, Chevron and PetroChina to advance the development of large-scale CCUS solutions and integrated infrastructure in Singapore.

### Sustainable Design

In line with our commitment to sustainability, the Group considers environmental factors during the planning and design, as well as operational phases of our urban development projects. For all project sites covered under the scope of Keppel Land's environmental management system, contractors are required to conduct an environmental impact assessment based on activities at the project site prior to construction. The assessment covers potential negative environmental impacts, including depletion of resources, biodiversity disturbance, as well as air, water and noise pollution.

Contractors are required to establish and implement appropriate measures to mitigate and/or prevent significant environmental impacts that have been identified.

Keppel Land has also set the benchmark for all its new Singapore developments and overseas commercial projects to be certified to the BCA Green Mark Gold<sup>PLUS</sup> standard, or its equivalent, and for all new overseas residential developments to be certified to the BCA Green Mark Gold Standard, or its equivalent. All newly acquired completed commercial buildings are also required to be certified to the BCA Green Mark Gold standard, or its equivalent, within two years<sup>4</sup>.

Keppel Land is driving sustainable urban renewal, with a mission to retrofit, future-proof and extend the lifespan of older commercial buildings in key gateway cities of Asia Pacific. Its pivot from a traditional developer model to sustainable urban renewal will contribute to circularity and reduce embodied carbon from business activities.

### Green Data Centres

As a leading provider of data centre solutions, Keppel continues to push the envelope with the development of

energy-efficient and sustainable assets such as the proposed Floating Data Centre Module and green data centre parks.

We are also enhancing the sustainability of our data centres through the development of power-efficient solutions, such as data centre-grade infrastructure solutions.

We are exploring the centralisation of utilities to help decarbonise data centres by reducing energy intensity and powering them with green electrons. This involves deploying the Group's proven district cooling systems to cool data centres, as well as providing reliable sources of green energy for the assets.

By aggregating energy loads across several buildings, Keppel's district cooling facilities can greatly reduce the overall capacity requirements and costs for cooling larger scale developments, achieving up to 40% in energy savings compared to standalone systems. We are also exploring the procurement of renewables, and zero-carbon energy alternatives including hydrogen to power the data centres. It is estimated that Keppel's centralised utilities platform can potentially improve the Power Usage Effectiveness of data centres by as much as 20 to 30%.

<sup>4</sup> Keppel Land's environmental targets apply to all projects where it has a majority stake and/or operational control.

# Climate Action and Environmental Management

## Environmental Management

GRI 2-27 | 3-3

The proactive management of our environmental impact enables us to improve resource efficiency, support the global climate change agenda and reduce costs.

The Group’s risk-based strategies are used to assess, avoid, reduce and mitigate environmental risks and impacts. Our focus areas are reducing our carbon emissions, enhancing energy efficiency, reducing water consumption and waste generation, and improving our environmental management systems.

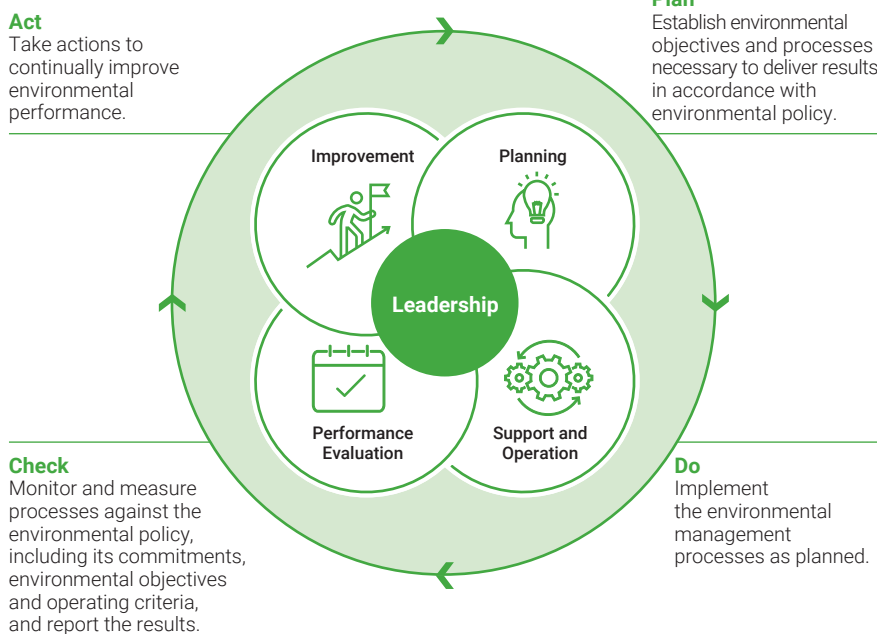
Our stance on environmental sustainability is articulated in our Environmental Sustainability Policy, which is endorsed by the Management Executive Committee. We are committed to improving our environmental performance and have integrated environmental sustainability considerations into our major business and investment decisions, as well as the Company’s performance scorecard and the performance appraisal of senior management across the Group.

The Group’s environmental management strategy is overseen by the Board Sustainability and Safety Committee and driven by the Management Executive Committee, which is chaired by the CEO of Keppel Corporation.

The Environmental Working Committee (EWC) implements various environmental management initiatives across the Group, including those related to energy, water, effluent and waste management, as well as materials and resource conservation. The EWC serves as a central platform to facilitate technical discussion, collaboration and synergistic efforts among the business units on environmental management issues. The Committee reviews the Group’s progress towards energy, water and waste reduction targets. It reports on major energy and water efficiency improvements made, alongside planned projects that will help to reduce energy consumption, carbon emissions and water withdrawals. It also drives waste recycling, upcycling and minimisation efforts to reduce the amount of waste sent for landfilling and/or incineration, and reduction of hazardous waste, amongst others.

The EWC comprises representatives from Keppel’s business units, many of whom are certified energy managers. It meets at least four times a year, and reports regularly on the progress in various

### International Standards Framework and Plan-Do-Check-Act Model for Environmental Management



areas of environmental management to the Group Sustainability Working Committee, and to the Management Executive Committee where necessary, in line with the Group’s Sustainability Management structure.

The Group complies with environmental regulations wherever it operates. As at end-2022, business units comprising 91.6% of our workforce adhere to the ISO 14001 Environmental Management Systems standard, which guides how we identify, manage, monitor and control environmental issues. External and internal environmental audits are conducted annually as part of the ISO 14001 assessment framework.

The data centres that Keppel Data Centres operates in Singapore are certified under the SS 564 Singapore Standard for Green Data Centres, the ISO 50001 Energy Management Systems and the ISO 46001 Water Efficiency Management Systems standard. Keppel Infrastructure is also ISO 50001 certified. The ISO 50001 standard helps organisations reduce energy consumption, minimise carbon footprint and reduce costs by promoting sustainable energy usage. External and internal environmental audits are conducted annually as part of the ISO 50001 assessment framework.

Across our key businesses, we adopt a systems approach and apply the International Standards framework and plan-do-check-act

model to achieve continual improvement in environmental management.

In 2022, Keppel achieved a score of B for Carbon Disclosure Project (CDP)’s Climate Change and Water Security assessments, and A- for Supplier Engagement Rating. CDP is a non-profit organisation that runs a global disclosure system which helps companies and cities manage their environmental impacts.

## Energy

GRI 302-1 | 302-3 | 302-4 | 302-5

The Group’s energy demand comprises a mix of direct and indirect sources of energy. Direct energy refers to primary sources of energy consumed on site by our operations, whereas indirect energy is electricity purchased from external suppliers.

The Group’s primary energy sources are diesel, piped natural gas, petrol and liquefied petroleum gas.

In 2022, the Group consumed 203,371 gigajoules (GJ) of direct energy and 983,102<sup>1</sup> GJ of indirect energy including renewable energy, compared to 203,543 GJ of direct energy and 1,119,354 GJ of indirect energy in 2021. The reduction in indirect energy was due mainly to the divestment of assets at Keppel Telecommunications & Transportation and M1, reduced activities at a few overseas shipyards as well as energy efficiency measures implemented. Energy intensity for 2022 was 126 GJ/\$million

<sup>1</sup> For entities that were divested during the year, we take into account the emissions up to the point of divestment, where possible.  
<sup>2</sup> As at end-February 2023, Keppel Land has a total of 92 Green Mark awards across its properties in Singapore and the region.

revenue, a 17.9% improvement as compared to 2021.

### Improving Energy Efficiency

Energy efficiency initiatives undertaken by the Group resulted in savings of about \$4 million. These initiatives, together with the cumulative green initiatives implemented at Keppel Land's Green Mark-certified developments<sup>3</sup>, are estimated to have resulted in 1,125,595 GJ<sup>3</sup> of energy savings which translate to estimated cost savings of about \$94 million<sup>4</sup> and an avoidance of approximately 126,000 tCO<sub>2</sub>e in emissions<sup>5</sup>.

These savings were achieved through the optimisation of operations and processes; technological improvements including the adoption of more sustainable building designs and materials; and the use of energy-efficient equipment and devices. Examples of initiatives undertaken in 2022 include:

- Implementation of various energy efficient systems at Keppel South Central in Singapore and chiller optimisation at IFC Tower 2 in Jakarta, Indonesia that will yield annual energy savings of 6,380,000 kWh during their operational phases;
- Upgrading to high efficiency chiller system at Keppel O&M yards and the i12 shopping mall that is estimated to reduce annual energy consumption by 1,083,000 kWh;
- Various upgrading works at Saigon Centre in Ho Chi Minh City, Vietnam including AHU retrofit and chiller plant optimisation, which are projected to save up to 3,295,000 kWh annually; and
- Upgrading to LED lightings and various energy optimisation projects at M1 that will yield energy savings of 55,540 kWh annually.

The total cost of energy efficiency measures amounted to about \$16.8 million. This included capital investment of about \$14.2 million in green building expenditure for three BCA Green Mark-certified properties, as well as \$2.6 million in operational energy-saving measures.

### Renewable Energy

In 2022, Keppel's renewable energy consumption increased by approximately 20% year-on-year to 124,253 GJ. This makes

up around 12.6% of the Group's electricity utilisation, compared to 9.3% in 2021. The Group strives to use renewable energy where possible to reduce its Scope 2 emissions and has set a target for 50% of the Group's electricity use to be from renewable energy sources by 2025, with a view to achieving 100% by 2030.

Keppel Bay Tower became the first commercial building in Singapore to be certified by the BCA as a Green Mark Platinum Zero Energy building in 2020. The installation of an assembly of photovoltaic (PV) panels spanning over 400 m<sup>2</sup> on the roof of the 18-storey Keppel Bay Tower, as well as its six-storey podium block, was completed in March 2021 and can generate an energy yield of about 100,000 kWh per annum.

Keppel O&M has an installation of PV panels spanning 52,800 m<sup>2</sup> on the rooftops of its shipyards. In 2022, these panels generated approximately 7 million kWh of renewable energy, which helped to reduce emissions from yard operations.

Several business units also purchased Renewable Energy Certificates (RECs) and international RECs to compensate for their Scope 2 emissions. These include business units in Singapore, Brazil and China.

### Water

GRI 303-1 | 303-3 | 303-4

Water is a precious resource, and an effective and reliable supply of water is vital in the operation of our assets including commercial buildings, data centres and district cooling assets.

Upstream processes such as construction require water for the processing of raw materials, cooling of processes and commissioning of projects. Downstream, water is used for drinking, cleaning, and general purposes.

Water stress was identified as one of the key risks faced by the Group's assets in the climate-related physical risk assessment that was conducted in 2021. We are monitoring steps taken at the governmental level to mitigate water stress in the respective countries or regions, and also strengthening water

### Energy Efficiency

# 1,125,595 GJ

Of energy savings which translate to an estimated cost savings of about \$94 million and an avoidance of approximately 126,000 tCO<sub>2</sub>e in emissions.

### Carbon Disclosure Project



Keppel participated in the CDP Climate Change and Water assessments in 2022.

<sup>3</sup> The 1,125,595 GJ in energy savings comprise savings from the reduced usage of fossil fuels such as diesel, and reduction in electricity consumed. The amount of savings in absolute terms is the difference in consumption before and after the implementation of an energy efficiency project. The savings are converted to energy equivalent in GJ based on the corresponding energy conversion factors for fossil fuels and electricity published in the United Kingdom's Department for Business, Energy & Industrial Strategy (BEIS) GHG Conversion Factors for Company Reporting, where 1 kWh = 0.0036 GJ and 1 tonne of diesel = 42.88 GJ. A significant proportion of the savings are achieved through cumulative green initiatives implemented at Keppel Land's Green Mark-certified developments, including projects under development, when they are fully completed.

<sup>4</sup> The electricity conversion factor used is based on BEIS GHG Conversion Factors for Company Reporting, where 1 kWh = 0.0036 GJ. The estimated monetary savings is calculated based on the average electricity tariff rates in 2022 published by SP Group, where 1 kWh = \$0.3031.

<sup>5</sup> The electricity savings in carbon dioxide equivalent was estimated by multiplying the energy savings in kWh with the Electricity Grid Emission Factors for 2021 from Singapore's Energy Market Authority (EMA), where 1 kWh = 0.4057 kg CO<sub>2</sub>.

## Climate Action and Environmental Management



Keppel Marina East Desalination Plant, Singapore's first large-scale, dual-mode desalination plant which is capable of producing 137,000 m<sup>3</sup> of fresh drinking water per day, contributes to Singapore's water security amidst increasing rainfall uncertainty caused by climate change.

conservation efforts through initiatives such as promoting water-saving practices, adopting water-efficient technologies and equipment, as well as implementing process improvements. The Group's investment in the development of water infrastructure such as the Keppel Marina East Desalination Plant (KMEDP), which commenced operations in 2020, also strengthens Singapore's water supply resilience in the face of the effects of climate change on weather conditions.

We have set a Group-wide water intensity reduction target of 20% by 2030 from 2019 levels<sup>1</sup>, to reduce water stress and water-related impacts. For 2022, the Group achieved a weighted average reduction of 5.7% in water intensity compared to its 2019 baseline.

Water withdrawal by the Group includes potable water (water from local catchment and imported water), NEWater (treated wastewater from sewage), ground water and seawater. The Group withdrew 16,388,211 cubic metres (m<sup>3</sup>) of water in 2022, lower than 21,227,438 m<sup>3</sup> in 2021, due mainly to decreased seawater withdrawal by Keppel O&M for shipyard operations, such as ballasting. This does not include 20,278,385 m<sup>3</sup> of water that was withdrawn and treated by KMEDP to provide potable water for public consumption.

The total water discharged by the Group in 2022 was 16,388,211 m<sup>3</sup>. This includes

3,686,211 m<sup>3</sup> of water discharged to third-party sources such as national sewerage systems. Another 12,702,000 m<sup>3</sup> of seawater was discharged back into the sea after ballasting and vessel cooling.

Keppel participates in industry initiatives on water risk management. The Group, through its subsidiary, Keppel Seghers, is a member of the Singapore Water Association (SWA). SWA is a collaboration among private sector players to promote Singapore as a water technology hub. It provides a forum for collaboration among members on emerging business opportunities and new technologies, and also serves as an important link to the international water network.

In Vietnam, the Group also launched a Living Well project, in which Keppel Land and Keppel Infrastructure collaborated to provide clean drinking water to about 20,000 villagers affected by drought and saltwater intrusion.

### Effluents

GRI 303-2 | 303-4

We are committed to manage, reduce and recycle effluents so as to minimise their discharge. Keppel has an effective programme to manage all sources of trade effluents generated from its operations and activities.

All effluents are monitored, treated and discharged into water courses or sewerage systems in accordance with the environmental

<sup>1</sup> Water intensity reduction target applies to the Group's operational units.

discharge limits and effluent standards in the countries of operation. Any non-compliance is immediately addressed and rectified.

Water discharged from Keppel Land's developments in Singapore utilises appropriate earth control measures to ensure that the discharged water contains a lower amount of total suspended solids than the legal allowable limit of 50 mg/litre. Where possible, such developments adopt Singapore's national water agency, PUB's 'Active, Beautiful, Clean Waters' principles, which aim to reduce runoffs and improve the quality of waterbodies.

At Marina at Keppel Bay, the use of green technology such as a reticulated vacuum sewer pump-out system, ensures that sewage from vessels is not discharged into the water.

### Waste

GRI 306-1 | 306-2 | 306-3 | 306-4 | 306-5

The Group strives to use natural resources efficiently, implement sound waste management to minimise waste generation, increase opportunities for reusing and recycling, as well as treat and dispose waste responsibly where other options are not practicable. We are also committed to reducing hazardous waste. Hazardous waste generated is handled, stored and disposed in a manner that adheres to best practices and meets local regulatory requirements.

To strengthen our commitment towards waste management, the Group has set a waste intensity reduction target of 10% by 2030 from its 2019 baseline<sup>2</sup>. For 2022, we achieved a weighted average reduction of 41.9% in waste intensity<sup>3</sup> compared to the baseline. The total waste generated also reduced by about 60% as compared to the baseline. We will be reviewing our waste target following the divestment of Keppel O&M which accounted for more than 80% of the Group's waste in 2022.

The bulk of hazardous waste generated by the Group is from activities at Keppel O&M's shipyards. In 2022, a total of 4,284 tonnes of hazardous waste was generated, all of which was disposed by licensed toxic waste collectors. This is a reduction of about 10.4% from 4,779 tonnes generated in 2021. With the divestment of Keppel O&M, hazardous waste generated by the Group is expected to fall significantly in the coming year.

Waste is segregated at our offices and plants as well as Keppel O&M's yards to promote reuse and recycling. Used paper from our offices as well as scrap metals and damaged equipment recovered from the shipyards are sent for recycling. The grits used for blasting at the shipyards are reused for subsequent blasting activities until the end of their reusable life span. Once the lifespan of the grits is due, it is disposed as hazardous waste.

Waste recycled include ferrous scrap, grits and paper. In 2022, the Group recycled 65,838 tonnes of refuse, a 21.8% decrease from 84,199 tonnes of waste recycled in 2021, due mainly to the nature of the work undertaken at Keppel O&M.

In land-scarce Singapore, refuse is incinerated at waste-to-energy (WTE) plants to reduce the volume of waste and to remove harmful substances before disposal at the landfill. Heat from the incineration of waste is recovered to produce electricity. Incineration is preferable to landfilling, as the direct burial of waste produces significant amounts of methane, a GHG.

### Emissions

GRI 305-1 | 305-2 | 305-3 | 305-4 | 305-5

#### Carbon Emissions Reduction<sup>4</sup>

In 2014, Keppel set a target to achieve a 16% improvement in carbon emissions intensity from 2020 business-as-usual levels, in line with national targets which the Singapore Government had announced in 2009. This target was achieved and surpassed by 2020.

In support of the Paris Agreement, Singapore announced in 2015 its intended nationally determined contribution of reducing GHG emissions intensity by 36% from 2005 levels by 2030. In line with the government's commitment, Keppel set a long-term target of a 28.8% reduction in carbon emissions intensity from 2010 levels by 2030 for our global operations. This target was also met and surpassed by end-2020.

Given the good progress achieved in reducing emissions intensity, Keppel announced its absolute carbon emissions reduction targets in October 2021, with the commitment to halve the Company's Scope 1 and Scope 2 carbon emissions by 2030, compared to 2020 levels, and achieve net zero Scope 1 and Scope 2 emissions by 2050. The target is in line with the Paris Agreement's goal to limit global temperature increase to 1.5°C compared to pre-industrial levels.

### Emissions Reduction

# 17.6%

The Group achieved a 17.6% reduction in Scope 1 and Scope 2 emissions from its 2020 baseline.

<sup>2</sup> Waste intensity reduction target applies to the Group's operational units.

<sup>3</sup> Waste data has been restated for Keppel Land following further verification of the data reported. The weighted average waste intensity reduction for the Group for 2020 and 2021 have been restated as 41.3% and 30.9% compared to 35% and 27% respectively.

<sup>4</sup> The GHG conversion factors for direct (Scope 1) emissions, as well as Global Warming Potential Values used are based on BEIS GHG Conversion Factors for Company Reporting. The GHG conversion factors for indirect (Scope 2) emissions are based on the Electricity Grid Emission Factors for 2021 from EMA. For other overseas regions, 2020 grid emission factors from the International Energy Agency were used.

## Climate Action and Environmental Management



Keppel Bay Tower, where Keppel Corporation is headquartered, is fully powered by renewable energy through on-site and off-site solar power.

In 2022, the Group achieved an absolute reduction in Scope 1 and Scope 2 emissions of 17.6% from its 2020 baseline, from 172,282 tCO<sub>2</sub>e to 142,004 tCO<sub>2</sub>e. Total direct (Scope 1) emissions from the use of fuels and refrigerants across the Group was 29,420 tCO<sub>2</sub>e, registering a 30.7% decrease from 42,476 tCO<sub>2</sub>e in 2020. Indirect (Scope 2) emissions from electricity use was 112,584 tCO<sub>2</sub>e in 2022<sup>1</sup>, a 13.3% reduction compared to 129,806 tCO<sub>2</sub>e in 2020.

Keppel has been tracking Scope 3 emissions since 2019, and has progressively expanded its coverage. In 2022, we increased our Scope 3 emissions coverage from 10 to all 15 categories, and are reporting on all categories relevant to the Group, and where data is available<sup>2</sup>.

Keppel's Scope 3 emissions amounted to 6,111,610 tCO<sub>2</sub>e in 2022, a significant increase from 2,941,163 tCO<sub>2</sub>e reported in 2021. The increase was due to the expansion of our coverage of Scope 3 emissions, and the addition of newly-recognised emissions in Keppel's energy value chain. The vast majority of the Group's Scope 3 emissions currently arises from

Category 11 (Use of Sold Products), amounting to about 69% of the Group's total Scope 3 emissions. This is due mainly to the sale of natural gas by Keppel Gas, including to the Keppel Merlimau Cogen Plant (KMC), which is 51% owned by Keppel Infrastructure Trust<sup>3</sup>. In addition, emissions from Category 1 (Purchased Goods and Services) and Category 15 (Investments) accounted for about 21% and about 5% of the Group's total Scope 3 emissions respectively. The remaining 5% of the Group's Scope 3 emissions arises from the rest of the Scope 3 categories.

Going forward, we will continue to work with our supply chain and portfolio of investments to improve energy efficiency and reduce emissions wherever possible.

Since end-2018, Keppel Corporation's corporate office at Keppel Bay Tower has been fully powered by renewable energy. In addition, the Group also acquired carbon credits to offset its Scope 3 emissions from business travel and employee commuting totalling 272 tCO<sub>2</sub>e,

thus allowing our corporate office to achieve carbon neutrality for the year. The purchased carbon credits support a renewable hydropower project in Sumatra, Indonesia, which contributes towards the achievement of the Sustainable Development Goals.

### Non-GHG Air Emissions

GRI 305-7

Non-GHG air emissions including NO<sub>x</sub>, SO<sub>x</sub> and particulate matter are generated mainly by Keppel's energy and environmental assets which are held under Keppel Infrastructure Trust (KIT), a separately listed business trust managed by the Keppel Group. Details of these emissions are reported in KIT's Annual Report.

Spray painting and blasting are part of Keppel O&M's operations and are conducted in dedicated blasting and painting halls which are controlled work environments. Dust collectors are installed in these halls to minimise dust pollution. The filters are subjected to regular inspection and maintenance, and the quality of the air emitted is tested annually to ensure that it complies with environmental regulatory limits.

<sup>1</sup> In accordance with GHG Protocol of reporting Scope 2 emissions using market- and location-based approaches, the figure reported here uses a market-based method, and includes the reduction in emissions from the purchase of Renewable Energy Certificates (RECs).

<sup>2</sup> Emissions data was not available from certain private companies in which Keppel held varying stakes such as Keppel Prince Engineering, Ocean Minerals Singapore, Watermark Retirement Communities and Nautilus Data Technologies.

<sup>3</sup> 100% of the gas sold by Keppel Gas, a subsidiary of Keppel Infrastructure, to KMC for power generation is reported under Keppel Corporation's Scope 3, Category 11 (Use of Sold Products). Keppel Infrastructure Trust (KIT), which is separately listed, accounts for the emissions arising from KMC's power generation under KIT's Scope 1 using an equity approach, based on KIT's 51% stake in KMC. Keppel Infrastructure does not separately disclose the emissions arising from its 49% stake in KMC under Keppel Corporation's Scope 3 Category 15 (Investments), in order to avoid double-counting, since these emissions have already been covered under Category 11, as aforementioned.



## Environmental Data

GRI 2-4

	2020	2021	2022
<b>Global Operations</b>			
<b>Energy</b>			
GRI 302-1			
Total energy consumption	1,453,798	1,322,897	1,186,473
Direct energy consumption (GJ)	311,985	203,543	203,371
Indirect energy consumption (GJ)	1,141,813	1,119,354	983,102
– Non-renewable	1,096,595	1,015,632	858,849
– Renewable	45,218	103,722	124,253
<b>Carbon Emissions</b>			
GRI 302-2   305-1   305-2   305-3   305-5			
Total Scope 1 and Scope 2 GHG emissions <sup>ab</sup>	172,282	157,122	142,004
Direct (Scope 1) GHG emissions <sup>a</sup> (tCO <sub>2</sub> e)	42,476	28,628	29,420
Indirect (Scope 2) GHG emissions <sup>b,c</sup> (tCO <sub>2</sub> e)	129,806	128,494	112,584
Other indirect (Scope 3) emissions <sup>d</sup> (tCO <sub>2</sub> e)	1,909,309	2,941,163	6,111,610
<b>Water</b>			
GRI 303-3   303-5			
Total water withdrawal <sup>e</sup>	16,827,075	21,227,438	16,388,211
Water withdrawal from third-party water			
– Potable water (m <sup>3</sup> )	1,606,034	1,398,247	1,561,654
– NEWater (m <sup>3</sup> )	1,387,183	1,450,718	1,679,392
Water withdrawal from ground water (m <sup>3</sup> )	244,008	420,473	445,165
Water withdrawal from seawater <sup>f</sup> (m <sup>3</sup> )	13,589,850	17,958,000	12,702,000
Total water withdrawal from all areas with water stress <sup>g</sup> (m <sup>3</sup> )	15,737,613	20,168,600	16,099,103
Recycled water used (m <sup>3</sup> )	40	64	205
<b>Effluents</b>			
GRI 303-2   303-4			
Total water discharge <sup>e</sup>	16,827,075	21,227,438	16,388,211
To third-party water (m <sup>3</sup> )	3,237,225	3,269,438	3,686,211
To seawater (m <sup>3</sup> )	13,589,850	17,958,000	12,702,000
Total water discharge to all areas with water stress <sup>h</sup> (m <sup>3</sup> )	15,737,613	20,168,600	16,099,103
<b>Waste</b>			
GRI 306-1   306-2   306-3   306-4   306-5			
Total waste recycled (tonnes)	64,688	84,199	65,838
Total waste disposed	17,456	35,339	37,207
Incinerated (tonnes) <sup>i</sup>	12,753	21,236	21,754
Landfilled (tonnes) <sup>i</sup>	4,703	14,203	15,453
Hazardous waste directed to disposal			
Third-party disposal (tonnes)	5,456	4,779	4,284

<sup>a</sup> Scope 1 emissions for 2020 were restated following M1's SBTi validation.

<sup>b</sup> Scope 2 emissions for 2020 were restated following M1's SBTi validation.

<sup>c</sup> In accordance with GHG Protocol, Scope 2 emissions can be calculated using market-based and location-based methods. In 2022, our Scope 2 emissions was 112,584 tCO<sub>2</sub>e using the market-based method, and includes the reduction in emissions from the purchase of RECs. Using the location-based method, our Scope 2 emissions was 117,983 tCO<sub>2</sub>e.

<sup>d</sup> We expanded our tracking of Scope 3 emissions from 10 categories in 2021 to all 15 categories in 2022. The categories which are relevant to the Group are Category 1: Purchased goods and services (1,296,176 tCO<sub>2</sub>e), Category 2: Capital goods (58,577 tCO<sub>2</sub>e), Category 3: Fuel- and energy-related activities (152,844 tCO<sub>2</sub>e), Category 4: Upstream transportation and distribution (44,955 tCO<sub>2</sub>e), Category 5: Waste generated in operations (14,914 tCO<sub>2</sub>e), Category 6: Business travel (3,038 tCO<sub>2</sub>e), Category 7: Employee commute (16,449 tCO<sub>2</sub>e), Category 8: Upstream leased assets (1,020 tCO<sub>2</sub>e), Category 11: Use of sold products (4,197,315 tCO<sub>2</sub>e), Category 12: End-of-life treatment of sold products (9,832 tCO<sub>2</sub>e), Category 13: Downstream leased assets (23,824 tCO<sub>2</sub>e) and Category 15: Investments (292,666 tCO<sub>2</sub>e).

<sup>e</sup> Total amount of water withdrawn is the same as total amount of water discharged into third-party water (i.e. national sewerage systems) with negligible amounts of water consumed.

<sup>f</sup> Figures exclude water withdrawn from seawater for treatment at Keppel Marina East Desalination Plant, which started operations in June 2020, to produce potable water for public consumption.

<sup>g</sup> Figures exclude water withdrawn from river and seawater for treatment at KMEDP. Areas of water stress across the Group's areas of operations were measured based on the World Resources Institute's Aqeduct tool.

<sup>h</sup> Areas of water stress across the Group's areas of operations were measured based on the World Resources Institute's Aqeduct tool.

<sup>i</sup> Figures for 2020 and 2021 were restated following further verification of the data reported.

## Climate Action and Environmental Management



Keppel is providing decarbonisation solutions for the energy and environmental sectors to help our customers and governments drive down carbon emissions. These include WTE technologies, district cooling solutions, and sustainable urban renewal, among others.

### Avoided Emissions

Keppel's WTE technology has been deployed in many landmark waste management projects around the world, helping clients avoid landfilling of waste and ensuring proper waste treatment.

Keppel Infrastructure operates the Senoko WTE plant and the Keppel Seghers Tuas WTE plant in Singapore as well as the Domestic Solid Waste Management Centre in Qatar. These plants collectively incinerated about 1,387,000 tonnes of waste in 2022, emitting about 754,000 tCO<sub>2</sub>e from the treated flue gas as part of the energy recovery process. In contrast, if the amount of waste incinerated by these plants in 2022 had been landfilled directly, it could have resulted in total landfill emissions from methane of 5,038,000 tCO<sub>2</sub>e. These plants also generated 638,000 MWh of electricity, which translates into an avoidance of 257,000 tCO<sub>2</sub>e of emissions which would otherwise have been produced by power plants running on fossil fuels. Combining the avoided emissions from landfill and electricity production from the three plants, the total net avoided emissions is 4,541,000 tCO<sub>2</sub>e, more than six times the emissions from the incineration process.

Another contributor to avoided emissions is Keppel DHCS which is the largest district

cooling systems (DCS) developer and service provider in Singapore. It provides cooling services through the development and operation of DCS at major business parks, and retail cooling to commercial and industrial buildings. By aggregating energy loads across several buildings, Keppel's DCS facilities are able to reduce the overall capacity requirements for cooling larger scale developments, potentially achieving up to 40% in energy savings. In 2022, Keppel DHCS in Singapore contributed to 4,323 tCO<sub>2</sub>e of avoided emissions compared with standalone systems.

At Keppel Land, the total energy savings that can be achieved from all its BCA Green Mark-awarded projects when they are fully completed will be over 300 million kWh per annum, which is equivalent to the amount of energy required to power about 60,000 homes<sup>1</sup> in Singapore for a year. This translates to annual cost savings of about \$90 million for the buildings' owners and users, and an avoidance of about 120,000 tCO<sub>2</sub>e in carbon emissions. This is in addition to total annual water savings of about 2.7 million m<sup>3</sup>.

### Materials

Raw materials (such as steel, sand, wood, cement, glass) and packaging materials

(such as paper, cardboard, plastics) are used mainly by Keppel O&M and Keppel Land in their operations.

Steel is the primary raw material used in the fabrication of parts and construction of various offshore and marine vessels. Keppel O&M's shipyards have set a robust quality assurance management system with a 'getting it right the first time' philosophy to minimise rejects and wastage of steel. In the event of any discards or rejects, such steel parts are recycled to scrap dealers instead of being disposed to landfill or incineration.

Keppel Land is involved in the development of residential and commercial projects. The use of raw materials is key in Keppel Land's operations, and it has put in place a target to increase the amount of green materials<sup>2</sup> used to 50% by 2030, and to use green concrete and steel certified with at least the Singapore Green Building Council's 4-ticks rating, or its equivalent, by 2030.

### Biodiversity

We strive to maintain high standards of environmental protection and preserve biodiversity where we operate. Both environmental protection and biodiversity were identified as relevant ESG topics and included in the Company's review of material ESG factors in 2022.

<sup>1</sup> Based on the average energy consumption of a five-room Housing and Development Board flat, which is 404 kWh/month. Source: SP Services.

<sup>2</sup> Green materials include green-labelled materials/products that are certified by recognised environmental organisations such as the Singapore Green Building Council (SGBC), the Singapore Environment Council (SEC) and the Forest Stewardship Council (FSC), which are low in emissions or have recycled content.

Environmental targets that the Group has set, such as reducing carbon emissions as well as waste and water intensity, contribute to the protection of nature and biodiversity. In 2022, we also refined our Environmental Sustainability Policy, which is endorsed by the Management Executive Committee<sup>3</sup>, to include protecting biodiversity and avoiding deforestation. We practise good stewardship of the natural environment by avoiding disruption to sites containing critical biodiversity, and applying the necessary mitigating measures, when operating in or near such areas. We have also committed to avoiding deforestation as far as possible and, where unavoidable, replanting trees to achieve net-zero deforestation<sup>4</sup>.

### Environmental Impact Assessments

Keppel conducts location-specific Environmental Impact Assessments (EIA) for major development projects undertaken by the Group where necessary, to identify potential impacts the developments may have on the environment.

At Keppel Infrastructure, EIA is a requirement for its infrastructure projects, based on local environmental regulations. Keppel Renewable Energy also conducts EIA for all its projects, based on local regulations or the Equator Principles.

Keppel, together with other partners, is developing the Bifrost Subsea Cable system, a multiple fibre paired, high-capacity submarine cable system that connects Singapore directly to the west coast of North America. Environmental impact as well as environmental and social due diligence assessments were conducted to evaluate the project's performance against the respective jurisdictions' regulatory requirements, and to develop an action plan to address any gaps identified.

Keppel Land conducts EIA for all new developments in Singapore and overseas, with site area greater than 10,000 sm. Contractors of project sites covered under Keppel Land's environmental management system are also required to conduct environmental impact assessments, covering potential negative environmental impacts including biodiversity disturbance, prior to construction and implement appropriate measures to mitigate and/or prevent significant environmental impacts that have been identified. For heavily vegetated sites of more than 10,000 sm with fauna/flora, both EIA and Biodiversity Impact Assessment are conducted.

For instance, Marina at Keppel Bay in Singapore was designed and constructed such that seawater can flow through the entire marina during the change of tides, thereby bringing nutrients and plankton that are essential for marine life and coral growth into the marina. Corals were also cultivated and transplanted to the area to enrich its marine biodiversity. To protect this natural ecology, vessels berthed at the marina are provided with pump-out facilities so that sewage from the vessels are not discharged into the waters. Boat owners are also encouraged to use biodegradable washing liquids when cleaning their vessels.

### Sustainable Urban Renewal

One of the growth areas that Keppel Land is focusing on is sustainable urban renewal (SUR), which involves retrofitting and repurposing existing older buildings. Compared to new construction, SUR reduces the impact on the environment, is more cost effective, and contributes to the circular economy.

A prime example of how we gave a new lease of life to an older building is Keppel Bay Tower, where Keppel Corporation is headquartered. Leveraging technology and renewable energy, Keppel Land upgraded the 20-year-old office building and turned it into Singapore's first BCA Green Mark Platinum Zero Energy commercial building in 2020.

Keppel is also expanding into the region where there are many opportunities to offer SUR solutions in key cities such as Seoul, where Keppel Land jointly acquired an office building with Keppel Capital in December 2022. We have also launched the Keppel Sustainable Urban Renewal Fund to advance the Group's growth in this area.

### Environmental Conservation Efforts

Keppel has been a longstanding and active supporter of environmental conservation programmes. Initiatives undertaken in recent years include a collaboration with National Parks Board (NParks) to restore a freshwater wetland habitat at Singapore Botanic Gardens, named the Keppel Discovery Wetlands.

The Group, through its philanthropic arm, Keppel Care Foundation, also committed \$3 million to the Garden City Fund to support the planting of 10,000 trees over five years (2021-2025) in Singapore's parks and nature reserves, as part of NParks' OneMillionTrees movement, to help improve Singapore's urban environment and enhance its national resilience against climate change.

The Group has committed to donate a further \$1 million to the Garden City Fund over three years from 2021 to 2023 to support the development of the Keppel Coastal Trail at Labrador Nature Reserve, where half of the 10,000 trees will be planted. The Keppel Coastal Trail aims to safeguard core habitats and critically endangered native species in the nature reserve, as well as raise public awareness of the role of coastal forests in mitigating the impact of climate change and rising sea levels.

Keppel also supported various other programmes to enhance public awareness of the importance of protecting the environment and conserving biodiversity. Further details can be found on pages 93 and 95 of this report.

### Compliance

GRI 2-27

The Group complies with environmental regulations wherever it operates. There were no records of significant fines<sup>5</sup> for non-compliance with environmental laws and regulations imposed on the Group by the Singapore or overseas authorities in 2022.

### Training

The Group provides regular training for directors and employees on sustainability issues. In 2022, all Directors on Keppel Corporation's Board attended sustainability training courses mandated by the Singapore Exchange. Other training provided for employees include understanding the impacts of the Company's activities on the environment and how they can contribute to providing solutions that help to advance sustainable development and climate action, as well as the latest developments on sustainability reporting.

During the year, speakers from the Earth Observatory of Singapore, Asia Pacific Centre for Environmental Law at the National University of Singapore, PwC Singapore and ClientEarth, an environmental law charity organisation, among others, were invited to give talks to Keppel employees on various climate and environment-related topics.

In addition, carbon management workshops were conducted for the Group's suppliers. Topics covered include familiarisation on Keppel's Environmental Sustainability Policy, carbon measurement and decarbonisation strategies, including the use of digital tools that can help with carbon footprint management.

<sup>3</sup> The Management Executive Committee is chaired by Keppel Corporation's CEO, and comprises the CEOs of key business units and the Chief Sustainability Officer.

<sup>4</sup> Further details can be found in Keppel Group's Environmental Sustainability Policy which is available on our website at [www.keppcorp.com](http://www.keppcorp.com).

<sup>5</sup> A significant fine refers to a monetary sanction equal to or above \$50,000 that was paid during the financial year.

# Corporate Governance

The long-term sustainability of the Group's businesses is underpinned by our core values, and driven at the highest level of the organisation through strong corporate governance and proactive engagement with stakeholders.

## Performance Overview

GRI 3-3



### 2022 Targets

- Enhance board diversity in terms of skills, experience, gender and age.
- Enhance sustainability governance.



### 2022 Performance

- Established Board Sustainability and Safety Committee, with clear terms of reference to sharpen the focus on sustainability issues.
- Augmented Board's skills, knowledge, experience and diversity with appointment of two new independent directors with experience and expertise in sustainability and digitalisation.
- Appointed a Chief Sustainability Officer.
- Conducted sustainability training for directors and senior management.
- All directors have undergone Singapore Exchange (SGX)-mandated sustainability training.
- Included sustainability as a regular topic in board agenda for Keppel.



### 2023 Targets

- Enhance board diversity in terms of skills, experience, gender and age.
- Enhance sustainability governance.



### Longer Term Targets

- Enhance board diversity in terms of skills, experience, gender and age.
- Enhance sustainability governance.
- Set up Sustainable Financing framework by 2024 to further tap green/sustainable finance leveraging Keppel's ESG credentials.

**Overview**

GRI 3-3

The Board and management of Keppel Corporation Limited (“KCL”, “Keppel” or the “Company”) firmly believe that a genuine commitment to good corporate governance is essential to the sustainability of the Company’s businesses and performance and are pleased to confirm that the Company has adhered to the principles of the Code of Corporate Governance 2018 (“2018 CG Code”), with references to the accompanying Practice Guidance.

**Board’s Conduct of Affairs**

GRI 3-3 | 2-9 | 2-11 | 2-12

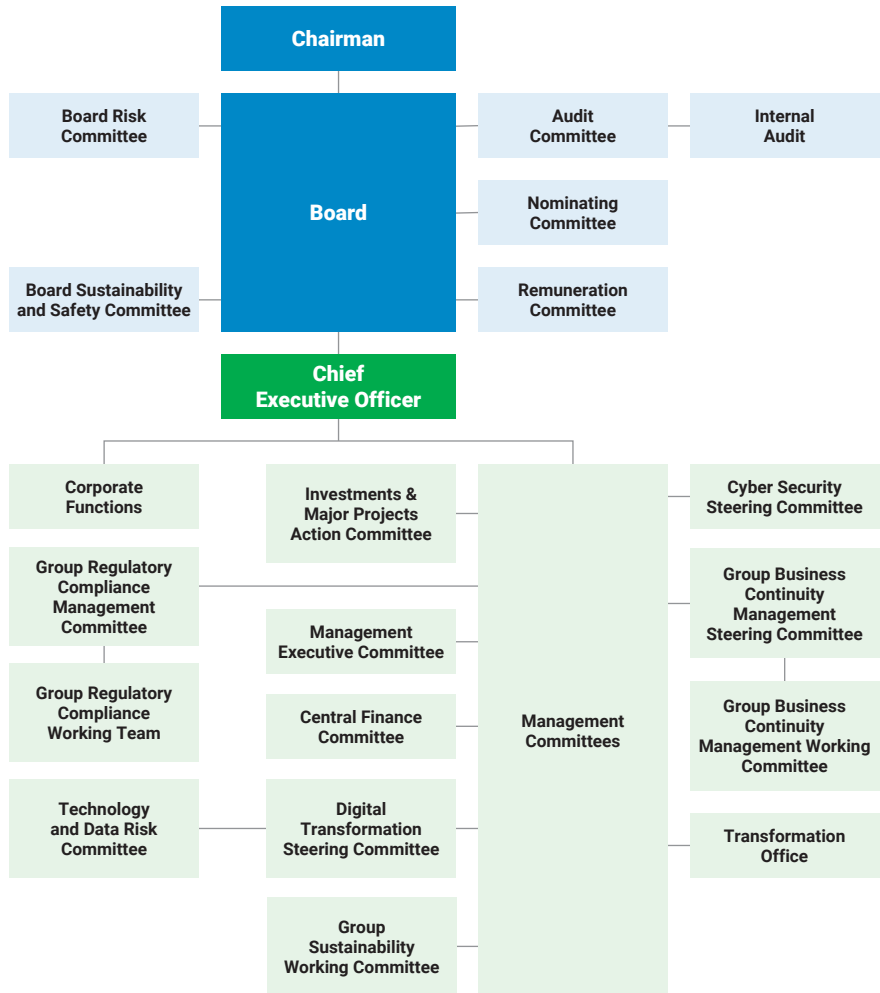
Mr Danny Teoh is the Chairman of the Company. He was appointed as a non-executive and independent Chairman with effect from 23 April 2021 and was re-designated as non-executive and non-independent Chairman with effect from 1 January 2022 in view of him having served for more than nine years on the Board.

The Chairman, with the assistance of the Company Secretaries, schedules meetings and prepares meeting agenda to enable the Board to perform its duties responsibly, having regard to the flow of the Company’s operations. He further sets guidelines on and monitors the flow of information from management to the Board to ensure that all material information is provided in a timely manner to the Board for the Board to make good decisions. He also encourages constructive relations between the Board and management. At board meetings, the Chairman encourages a full and frank exchange of views, drawing out contributions from all directors so that the debate benefits from the full diversity of views, in a robust yet collegiate setting. At general meetings, the Chairman ensures constructive dialogue between shareholders, the Board and management. The Chairman sets the right ethical and behavioural tone and takes a leading role in the Company’s drive to achieve and maintain a high standard of corporate governance with the full support of the directors, Company Secretaries and management.

Mr Till Vestring is the Lead Independent Director of the Company. He was appointed Lead Independent Director with effect from 1 November 2021 in view of Mr Teoh’s re-designation as a non-executive and non-independent Chairman. As Lead Independent Director, Mr Vestring supports the Chairman and the Board to ensure effective corporate governance in managing the affairs of the Company, provides

KCL’s governance structure is as follows:

**Governance Framework 2022**



leadership in situations where the Chairman is conflicted and facilitates communication between the Board and shareholders or other stakeholders of the Company as necessary. He is also available to shareholders and other stakeholders of the Company where they have concerns and for which their previous contact through the normal channels of the Chairman and management has failed to resolve the matter or has been inadequate or inappropriate. He is also the Chairman of the Remuneration Committee and a member of the Nominating Committee (“NC”).

To assist the Board in the discharge of its oversight function, various board committees, namely the Audit, Board Risk, Nominating, Remuneration, and Board Sustainability and Safety Committees,

have been constituted with clear written terms of reference. All the board committees are actively engaged and play an important role in ensuring good corporate governance in the Company and within the Group, and the Board is kept updated on discussions of the committees via circulation of minutes and regular updates by the respective chairmen of the committees at board meetings. The terms of reference of the respective committees are reviewed on an annual basis, along with the board committees’ structures and membership, to ensure their continued relevance and effectiveness. The composition and terms of reference of the respective board committees setting out their responsibilities and authority are found on pages 108 to 110 of Keppel Corporation’s Annual Report 2022.

## Corporate Governance and Risk Management

### Corporate Governance

Mr Loh Chin Hua is the Chief Executive Officer (“CEO”) of the Company. He, assisted by the management team, makes strategic proposals to the Board and after robust and constructive board discussion, executes the agreed strategy, manages and develops the Group’s businesses and implements the Board’s decisions. He is supported by management committees that direct and guide management on operational policies and activities, which include:

1. *Investments & Major Projects Action Committee*, which guides the Group in exercising a spirit of enterprise as well as prudence to earn optimal risk adjusted returns on invested capital for its chosen lines of business, taking into consideration the relevant risks in a controlled manner;
2. *Management Executive Committee (“MExCo”)*, which brings together the CEO and CFO of the Company, business unit (“BU”) CEOs, and select members of the Group’s senior management, to review, deliberate and approve major business, governance, organisation/people and risk management related decisions that impact the whole Group or a substantial part of the Group; to delegate their implementation to specific groups or individuals; to review and track progress of previously approved decisions; and to oversee the development and review of overarching compliance policies and guidelines for the Group. MExCo also oversees sustainability issues, including determining the Group’s policies and targets;
3. *Central Finance Committee*, which reviews, guides and monitors financial policies and activities of Group companies;
4. *Group Regulatory Compliance Management Committee (“Group RCMC”)*, which articulates the Group’s commitment to regulatory compliance, directs and supports the development of overarching compliance policies and guidelines, and facilitates the implementation and sharing of policies and procedures across the Group;
5. *Group Regulatory Compliance Working Team*, which supports the Group RCMC and oversees the development and review of overarching compliance policies and guidelines for the Group, as well as reviews training and communication programmes;
6. *Digital Transformation Steering Committee*, which provides strategic guidance and endorses Group-wide technology vision, initiatives and policies to achieve alignment and optimisation in achieving business strategies;
7. *Group Sustainability Working Committee*, which drives, coordinates and monitors the execution of the Group’s sustainability efforts;
8. *Cyber Security Steering Committee*, which guides the Group’s overall cyber security vision and strategy, and provides oversight on cyber security risks and initiatives to safeguard information assets and interests across the Group;
9. *Group Business Continuity Management Steering Committee*, which guides the effective development and implementation of a robust business continuity plan and ensures continuous improvement to enhance the Group’s operational readiness through the review of Business Continuity Management (“BCM”) plans and exercises;
10. *Group Business Continuity Management Working Committee*, which supports the Group Business Continuity Management Steering Committee and coordinates with respective business units and department BCM coordinators in developing detailed plans in the prevention, preparedness, response, continuity and recovery of critical business functions; and
11. *Transformation Office*, which was established to drive the implementation of the Group’s Vision 2030, to develop the strategic roadmap of the Company’s transformation into an integrated

business, and to coordinate the projects and initiatives across the Group.

#### Board Strategic Review

The Board periodically reviews and approves the Group’s strategic plans. A two-day off-site Board strategy meeting is organised annually for in-depth discussions on the Group’s strategy. The offsite Board strategy meeting, which includes directors as well as senior management and potential next generation leadership, includes a review of the progress made, deep-dive discussions on key strategic issues, and alignment on the strategic direction going forward. It provides a good platform for the non-executive directors (“NED”) to have a deep understanding of the Group and its businesses and get to know the current and future leadership team.

For FY 2022, the focus of the strategy meeting was on the progress and execution of Vision 2030, which included an in-depth scenario planning exercise taking into account the volatility of the external environment, as well as recurring topics such as sustainability. The strategy meeting also covered an in-depth review of each of the four business segments (Asset Management, Urban Development, Energy & Environment and Connectivity) and the related key projects.

#### An Effective Board

The Board and management fully appreciate that fundamental to good corporate governance is an effective and robust Board whose members engage in open and constructive debate and challenge management on its assumptions and proposals.

#### Independence of Directors

The NC determines on an annual basis whether or not a director is independent. In January 2023, the NC carried out the review on the independence of each director based on the respective directors’ self-declaration in the Directors’ Independence Checklist and their actual performance on the Board and board committees, taking into account the

rules on the circumstances in which a director will not be deemed independent and guidance in the 2018 CG Code as to the circumstances in which a director should not be deemed independent.

Further details of the NC's assessment of the independence of the directors are set out on pages 90 and 91 of our Annual Report 2022.

### **Independent Judgement**

The Company's directors are required to exercise independent judgement in the best interests of the Company. Based on the result of the peer assessment carried out by the directors for FY 2022, all directors have discharged this duty well.

### **Conflicts of Interest**

GRI 2-15

Each director must promptly disclose conflicts of interest, whether direct or indirect, in relation to any transaction or proposed transaction. In this connection, the Company has in place a **"Keppel Group – Directors' Conflict of Interest Policy"** to guide directors in identifying, disclosing and managing situations of actual or potential conflicts, as well as situations which may be perceived to be conflicts of interest. Every director is required to promptly disclose any conflict of interest, whether direct or indirect, in relation to a transaction or proposed transaction with the Company as soon as is practicable after the relevant facts have come to his/her knowledge, and recuse himself/herself when the conflict-related matter is discussed unless the Board is of the opinion that his/her presence and participation is necessary to enhance the efficacy of such discussion, and abstain from voting in relation to conflict-related matters. On an annual basis, each director is also required to submit details of his/her associates for the purpose of monitoring interested persons transactions.

### **Board Competency & Diversity**

GRI 2-17

The Company recognises that diversity in relation to composition of the Board provides a range of perspectives, insights

and challenge needed to support good decision making for the benefit of the Group, and is committed to ensuring that the Board comprises directors who, as a group, provide an appropriate balance and mix of skills, knowledge, experience, and other aspects of diversity (such as gender, age, race/ethnicity and nationality) so as to promote the inclusion of different perspectives and ideas, mitigate against groupthink and ensure that the Company has the opportunity to benefit from all available talent. The final decision on the appointment of directors would be based on the objective criteria set by the Board from time to time on the recommendation of the NC after having regards to the benefits of diversity and the needs of the Board.

The Company has in place a Board Diversity Policy that sets out the framework and approach for the Board to set its qualitative and measurable quantitative objectives for achieving diversity, and to annually assess the progress in achieving these objectives. The annual assessment is led by the NC as part of the process for appointment of new directors and Board succession planning. To help the NC identify gaps (if any) in skills, knowledge, experience and other aspects of diversity in the board composition in any given year of assessment, each member of the Board is required to complete a Board and Skills Diversity Matrix to indicate which of the list of skills, talents, knowledge, experience and other aspects of diversity (identified by the NC, and set out in the Board and Skills Diversity Matrix, as being able to contribute to the Company's strategy and business) the Board member possesses. The returns from the Board members are then consolidated into a single Board and Skills Diversity Matrix to highlight the Board's current mix of skills, knowledge, experience and other aspects of diversity and gaps therein if any.

The Board will, taking into consideration the recommendations of the NC, review and agree annually the qualitative and measurable quantitative objectives for achieving diversity on the Board.

# Corporate Governance and Risk Management

## Corporate Governance

### Achievement of Qualitative and measurable Quantitative Objectives identified under the Board Diversity Policy for the period FY 2022 to FY 2024, and Adoption of New Rolling 3-year Board Diversity Objective for the period FY 2023 to FY 2025

The objectives identified by the NC in FY 2021 for the period FY 2022 to FY 2024 were reviewed in January 2022 and more recently in January 2023.

The progress towards achieving such objectives as at the end of FY 2022 are set out below.

Objectives	Progress
<p><b>Size:</b> Appoint at least three to four additional independent directors by end-FY 2023, with relevant expertise and experience that would complement those already on the Board, and which would help drive the Group's Vision 2030 strategy, and for succession planning.</p>	<p>Mr Shirish Apte was appointed as an independent director to the Board with effect from 1 July 2021. Mr Apte is currently the non-executive Chairman of Pierfront Mezzanine Capital (Singapore). Prior to his retirement from Citigroup in 2014, Mr Apte had built up 32 years of financial services experience, holding various senior roles within the group, including Chairman of Asia Pacific Banking, Regional CEO of Asia Pacific, Regional CEO of Europe, Middle East &amp; Africa, and Country Head of Citibank Poland. His responsibilities included corporate banking, investment banking and risk management. The NC was of the view that the Board would benefit from Mr Apte's expertise and experience on several fronts, including his ability to analyse organisational strategies, expertise in deal making and risk analysis, international experience and knowledge of, and experience and network in India.</p> <p>Mr Jimmy Ng was appointed as an independent director to the Board with effect from 1 May 2022. Mr Ng is currently the Group Chief Information Officer, as well as Head of Group Technology &amp; Operations at DBS Bank. He possesses more than 30 years of regional and global experience in both wholesale banking and consumer banking businesses with DBS Bank, RBS, ABN Amro Bank and J.P. Morgan. Prior to his current appointment, Jimmy was the Chief Audit Executive for Group DBS and the Head of Consumer Banking Operations, where he spearheaded the transformation of the Audit function and the Consumer Banking Operations using advanced data analytics and machine learning techniques. The NC was of the view that Mr Ng was a suitable addition to the Board given his in-depth experience and expertise in driving digitalisation as a corporate strategy, and significant experience in the application of technology and innovations across a spectrum of areas, considering that under Vision 2030, the Group's growth would in part be driven by advanced technologies and digitalisation, and investment in new technologies and building capabilities would be critical to get the Group to where it wants to be in the future.</p> <p>Mr Olivier Blum was appointed as an independent director to the Board with effect from 1 May 2022. Mr Blum is currently the Executive Vice-President of Schneider Electric's Energy Management Business and a member of the company's Executive Committee. Prior to this, Mr Blum was the Chief Strategy &amp; Sustainability Officer of Schneider Electric, where he led the development of the company's strategic, sustainability and quality initiatives, while steering its merger, acquisitions, and divestment activities globally. Before this, he was on Schneider Electric's Executive Committee as the company's Chief Human Resources Officer. Currently based in Hong Kong, Mr Blum has been living and working in Asia for the last two decades, during which he has held leadership positions in China and India. The NC was of the view that Mr Blum's in-depth experience and expertise in sustainability could help drive the Group's sustainability-as-a-business initiative and guide the Group on its sustainability journey. Further, as the Group continues on its transformational journey under Vision 2030, the Board will benefit from Mr Blum's regional operational experience in China and India, and his talent management experience as a former Chief Human Resource Officer.</p>
<p><b>Age and Gender:</b> Improve age and gender diversity over a 3-year period by appointing at least one younger director (50 years old or below) and one female director by the end of FY 2024.</p>	<p>With the appointment of Mr Jimmy Ng and Mr Olivier Blum, both of whom are in their 50s, the age diversity of the Board has improved.</p> <p>The NC, in consultation with management, continues to source for suitable candidates with relevant knowledge and experience while also being mindful of age and gender diversity.</p>
<p><b>Skills and Experience:</b> Improve skills and experience diversity by appointing directors with oversight and operational experience in driving (i) sustainability-as-a-business, (ii) digitalisation as a corporate strategy, (iii) private equity/asset management and/or (iv) infrastructure</p>	<p>Mr Jimmy Ng, who was appointed as an independent director to the Board with effect from 1 May 2022, has in-depth experience and expertise in driving digitalisation as a corporate strategy, and significant experience in the application of technology and innovations across a spectrum of areas.</p> <p>Mr Olivier Blum, who was appointed as an independent director to the Board with effect from 1 May 2022, has in-depth experience and expertise in sustainability that could help drive the Group's sustainability-as-a-business initiative and guide the Group on its sustainability journey.</p>



In January 2023, in view of the substantial progress that had been made in respect of the diversity objectives previously identified, a further review of the skills, knowledge, talents, experience and other aspects of diversity that had been identified to help drive the Group's Vision 2030 strategy, and for succession planning purposes, was undertaken. It was noted by the NC that the focus of the Board diversity objectives for the next rolling 3-year period from FY 2023 to FY 2025 could be appropriately consolidated as shown in the diagram on the right.

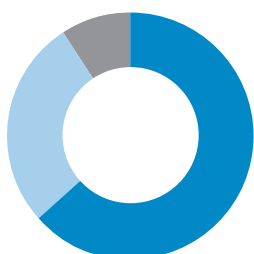


### Objective

Source for candidates with deep knowledge and experience in investment, infrastructure/engineering and relevant regional expertise, while being mindful of age and gender diversity.

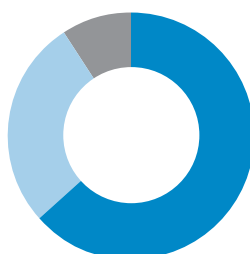
### Other Aspects of Diversity

#### Race or Ethnicity (%)



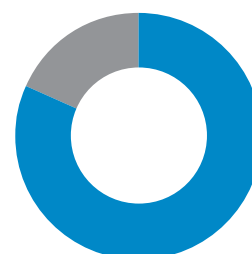
Chinese	63.6
Caucasian	27.3
Indian	9.1
<b>Total</b>	<b>100.0</b>

#### Tenure (%)



0-4 years	63.6
5-9 years	27.3
Above 9 years	9.1
<b>Total</b>	<b>100.0</b>

#### Gender (%)



Male	81.8
Female	18.2
<b>Total</b>	<b>100.0</b>

#### Age (%)



51-55	9.1
56-60	18.2
61-65	27.3
66-70	45.4
<b>Total</b>	<b>100.0</b>

#### Country of Origin, Nationality or Cultural Background (%)



Singaporean	63.6
German	9.1
Canadian	9.1
British	9.1
French	9.1
<b>Total</b>	<b>100.0</b>

#### Skills, Knowledge, Talents and Experience

- Finance/Accounting
- Risk Management
- Sustainability
- Digital/Technology
- Mergers & Acquisitions
- Corporate Finance
- Management
- Human Resource
- Legal
- Strategic planning experience
- Customer-based experience or knowledge
- Industry Knowledge – Energy & Environment
- Industry Knowledge – Urban Development
- Industry Knowledge – Connectivity
- Industry Knowledge – Asset Management
- International Perspective
- Regional Experience

## Corporate Governance and Risk Management

### Corporate Governance

#### Board Information

The Board and management fully appreciate that fundamental to good corporate governance is an effective and robust Board whose members engage in open and constructive debate and challenge management on its assumptions and proposals, and that for this to happen, the Board must be kept well informed of the Company's businesses and affairs and be knowledgeable about the industry in which the businesses operate. The Company has therefore adopted initiatives to put in place processes to ensure that the NEDs are well supported by accurate, complete and timely information, have unrestricted access to management and the Company Secretaries, and have sufficient time and resources to discharge their oversight function effectively. Subject to the approval of the Chairman, the directors, whether as a group or individually, may seek and obtain independent professional advice to assist them in their duties, at the expense of the Company.

As a general rule, board papers are required to be distributed to the directors at least seven days before the board meeting so that the directors may better understand

the matters prior to the board meeting and discussion may be focused on questions that the directors may have. Directors are provided with tablet devices to facilitate their access to and review of board materials. However, sensitive matters may be tabled at the meeting itself and discussed. Managers who can provide additional insights into the matters at hand would be present at the relevant time during the board meeting.

The Board is briefed on prospective deals and potential developments at an early stage before formal board approval is sought, and relevant information on business initiatives, industry developments as well as analysts and press commentaries on matters in relation to the Company or the industries in which it operates are circulated to the directors from time to time. Management is also expected to provide the Board with accurate information in a timely manner concerning the Company's progress or shortcomings in meeting its strategic business objectives or financial targets and other information relevant to the strategic issues facing the Company. In this aspect, the Board is regularly updated on new projects and the progress of the execution of Vision 2030.

The Board also reviews the budget on an annual basis, and any material variance between the projections and actual results would be disclosed and explained. Management also provides the Board members with management accounts on a monthly basis and as the Board may require from time to time, to keep the Board informed, on a balanced and understandable basis, of the Group's performance, financial position and prospects.

#### Training

Directors are provided with continuing education in areas such as directors' duties and responsibilities, corporate governance, changes in financial reporting standards, changes in the Companies Act, continuing listing obligations and industry-related matters, so as to update and refresh them on matters that may affect or enhance their performance as board or board committee members. Site visits are also conducted periodically for directors to familiarise them with the operations of the various businesses so as to enhance their performance as board or board committee members. All induction, training and development costs are at the Company's expense.



Mr Till Vestring, Lead Independent Director (second from right) accepted the Singapore Corporate Governance Award (Big Cap) on behalf of the Company, while Mr Loh Chin Hua, CEO (third from right) received the Investors' Choice Outstanding CEO Award. Also pictured are Guest-of-Honour, Mr Alvin Tan, Minister of State, Ministry of Culture, Community and Youth and Ministry of Trade and Industry (third from left), Mr David Gerald, President and CEO of Securities Investors Association (Singapore) (SIAS) (first from left) and senior management of Keppel.

In FY 2022, some directors attended talks on topics relating to sustainability, digitalisation, decarbonisation and diversity trends, health, safety & environment, technology foresight, China's business environment, risk management, governance and macroeconomic trends. E-training was also conducted on the Group's Code of Conduct and its policies on anti-bribery, conflict of interest, health, safety & environment, whistle-blowing, sanctions, insider trading and cyber security. All directors have also attended sustainability training courses mandated by Singapore Exchange Regulation (SGX RegCo).

Each director is also invited to participate in the annual Keppel Technology Advisory Panel conference. In the one-day lineup held in FY 2022, over 25 distinguished speakers shared their vision of the future with over 300 participants including the Company's Board, management and key leadership teams across the Group's lines of business. Topics covered included imagining the customers and employees of tomorrow, how resource constraints will shape the future, connectivity technologies including Web3, Metaverse and Quantum Computing, the next horizon for Energy Transition, the evolving carbon economy of the future, the future of liveability across senior living, built environment and servitisation of business, as well as sustainability financing and impact investing.

### Board Evaluation

GRI 2-18

The Board has implemented formal processes for assessing the effectiveness of the Board as a whole, each of its board committees, the contribution by the Chairman and peer assessment of the individual directors to the effectiveness of the Board. The evaluation for FY 2022 was conducted by Egon Zehnder, as supported by the NC. The evaluation process is set out on page 111 of our Annual Report 2022.

### Board Composition & Succession Planning

GRI 2-10

The Board believes that orderly succession and renewal are achieved as a result of careful planning, where the appropriate composition of the Board is continually under review. In this regard, the Board has put in place a formal process for the renewal of the Board and the selection of

new directors so that the experience of longer serving directors can be drawn upon while tapping into the new external perspectives and insights which more recent appointees bring to the Board's deliberation. The NC leads the process and makes recommendation to the Board on the appointment of new directors and re-nomination of directors.

#### Process for appointment of new directors

- a. NC reviews annually the balance and mix of skills, knowledge, experience, and other aspects of diversity such as gender and age, race/ethnicity and nationality, and size of the Board which would facilitate decision-making. In this review, the NC would also take into account the needs of the Group, the collective skills and competencies of the Board and service tenure spread of the directors.
- b. In the light of such review and in consultation with management, the NC assesses if there is any inadequate representation in respect of any of those attributes and if so, determines the role and the desirable competencies for a particular appointment.
- c. The NC will in all cases take into consideration the following objective criteria identified as necessary for the Board and board committees to be effective:
  - i. Integrity
  - ii. Independent mindedness
  - iii. Able to commit time and effort to carry out duties and responsibilities effectively
  - iv. Track record of making good decisions
  - v. Experience in high-performing companies
  - vi. Financial literacy

#### Process for re-nomination of retiring Directors

- a. Pursuant to the Constitution, one-third of the directors shall retire from office at the Company's Annual General Meeting every year, and a director appointed after the last Annual General Meeting shall only hold office until the next Annual General Meeting. If eligible, these directors may submit themselves for re-election.
- b. NC reviews each director's eligibility, contribution and performance (such as attendance, preparedness, participation and candour), with reference to the results of the assessment of the performance of the individual director by his/her peers and his/her tenure.
- c. NC makes recommendations to the Board for approval.

d. External help (for example, Singapore Institute of Directors and search consultants) may be used to source for potential candidates if need be. Directors and management may also make recommendations.

e. NC meets with the shortlisted candidate(s) to assess suitability and to ensure that the candidate(s) is/are aware of the expectations and the level of commitment required.

f. NC makes recommendations to the Board for approval.

# Corporate Governance and Risk Management

## Corporate Governance

### Remuneration Framework

GRI 2-19 | 2-20

The Remuneration Committee (“RC”) is responsible for ensuring a formal and transparent procedure for developing policies on director and executive remuneration and for determining the remuneration packages of individual directors and senior management. The RC assists the Board to ensure that remuneration policies and practices are sound in that they are able to attract, retain and motivate without being excessive, thereby maximising shareholder value. The remuneration report, which includes details of the Group’s remuneration framework, is set out at pages 92 to 98 of our Annual Report 2022.

The RC has access to expert advice from external remuneration consultants where required. In FY 2022, the RC sought views from external remuneration consultant, Willis Towers Watson, on market practice and trends, and benchmarks against comparable organisations. The RC undertook a review of the independence and objectivity of the external remuneration consultants through discussions with the external remuneration consultants and has confirmed that the external remuneration consultants had no relationships with the Company which would affect their independence and objectivity.

### Risk Management & Internal Controls

The Board, supported by the Audit Committee (“AC”) and Board Risk Committee (“BRC”), oversees the Group’s system of internal controls and risk management.

The AC’s primary role is to assist the Board with ensuring the integrity of financial reporting and the adequacy and

effectiveness of the system of internal controls and risk management. The AC has explicit authority to investigate any matter within its responsibilities, full access to and co-operation by management, full discretion to invite any director or executive officer to attend its meetings, and reasonable resources (including access to external consultants) to enable it to properly discharge its responsibilities.

The BRC considers the nature and extent of the significant risks which the Company may take in achieving its strategic objectives and value creation; and reviews and guides management in the formulation of risk policies and processes to effectively identify, evaluate and manage significant risks, to safeguard shareholders’ interests and the Group’s assets, and ensure corporate sustainability. The Committee reports to the Board on critical risk issues, material matters, findings and recommendations.

### Keppel’s System of Management Controls

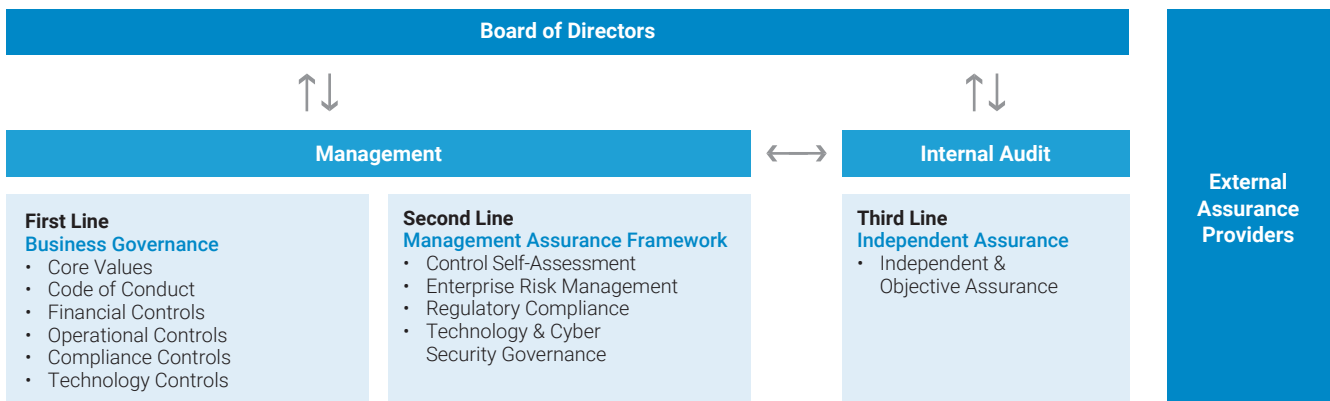
The Group also has in place Keppel’s System of Management Controls (“KSMC”) outlining the Group’s internal control and risk management processes and procedures. The KSMC comprises the Three-Lines Model to ensure the adequacy and effectiveness of the Group’s system of internal controls and risk management.

Under the First Line of Business Governance, the Group and its business units’ (“BUS”) management, supported by their respective line functions and committees, are responsible for the identification and mitigation of risks (including financial, operational, compliance and technology risks) facing the Group and respective BUs in the course of running their business. Appropriate policies,

procedures, and controls are implemented and operationalised in line with the Group’s risk appetite where applicable. Employees are also guided by the Group’s Core Values and expected to comply strictly with Keppel’s Code of Conduct. Keppel’s Cyber Security Centre consists of Cyber Technology and Cyber Operations pillars, partnering business and managing cyber risks through advisory, building and running sustainable next-generation solutions to combat against evolving cyber threats while meeting business objectives.

Under the Second Line, Management Assurance frameworks are established to enable oversight and governance over operations and activities undertaken by management under the First Line. Business units and entities scoped in for control self-assessment (“CSA”) are required to conduct a self-assessment exercise to assess the status of their respective internal controls on an annual basis. The annual CSA exercise is overseen by Control Assurance. Remedial actions are implemented to address all control gaps identified during the CSA exercise. Group Risk & Compliance (“GRC”), working in conjunction with the Group and respective BUS’ line functions and committees, oversees the implementation of the Group’s Enterprise Risk Management framework, under which the Group will identify, assess and mitigate risks facing the Group to ensure that risks fall within the established risk appetite and tolerance. In respect of regulatory compliance, the Group’s and BUS’ line functions and committees support and work alongside GRC and the Group’s and BUS’ management to help ensure relevant policies, processes and controls are effectively designed, implemented and

### Keppel’s System of Management Controls



↑ Accountability, reporting    ↓ Delegation, direction, resources, oversight    ↔ Alignment, communication, coordination, collaboration

managed to mitigate compliance risks that the Group and respective BUs face in the course of their business. The Technology Governance framework overseen by Group Information Technology aims to align technology strategy to enterprise vision, whilst strengthening technology controls and security, and managing technology risks for the Group.

The Technology Governance framework was strengthened in 2022 with the adoption of a uniform framework structure and methodology to enable the Group and business units to monitor and manage technology risks better and more effectively, as well as to ensure that activities associated with technology are aligned with the overall business objectives through the establishment of the three pillars in Technology Governance (i.e. Policy, Technology Risk Management and Compliance). The Technology Governance framework aims to provide an approach to ensure technology risks are identified and adequately mitigated in the design, operation, use, and management of the Group's computing resources taking into consideration statutory, regulatory, contractual and security requirements. This framework covers the use of all technology systems and assets within the Group, including third-party service providers. The Head of Group Cyber Security, providing oversight to Keppel's Cyber Security Centre and Cyber Governance, has a reporting line to the Board Risk Committee to reinforce independence and facilitate Board oversight. Group Cyber Security drives the enterprise vision, strategy and programme to ensure that the Group's technology assets are adequately protected from cyber threats. Cyber Governance maintains cyber policies aligned with industry standards such as ISO 27001/2, US National Institute of Standards and Technology as well as local regulators' requirements to ensure effective management of cyber security risks. Cyber assurance and compliance programmes are executed to ensure developed processes and controls are effective and adhered to.

The Third Line comprises independent assurance, including internal and external audit. Internal audit provides the Board and the Group's senior management with independent assurance over the adequacy and effectiveness of the system of internal controls, risk management and governance, while external audit considers the internal controls relevant to the Company's preparation of financial statements and performs tests on such internal controls, where they are assessed to be necessary, in support of the audit opinion issued on the financial statements of the Company.

### Enhancement to Compliance Programme in FY 2022

At Keppel, accountability is a core value. As Keppel's Code of Conduct states, "we care how results are achieved, not just that they are attained." Implementing that core value through enhancing Keppel's regulatory compliance process and by reminding every Keppelite of that core value is a focus of attention for Keppel, Keppel's boards, and officers and line managers across the globe.

Our Code of Conduct spells out the standards and rules of conduct which all directors and employees should abide by. In this aspect, various policies are in place to provide guidance, such as an Insider Trading Policy and Guidelines on Disclosure of Dealings in Securities of the Company and its listed subsidiaries and associated companies, which set out the implications of insider trading and guidance on such dealings, including the prohibition on dealings with the Company's securities on short-term consideration.

Read more about the enhancements that have been made to the Group's compliance programme during the year on pages 101 to 103 of our Annual Report 2022.

### Training and Communication

GRI 205-2

The Group continuously ensures that its compliance policies and procedures are communicated effectively to all employees, including officers, directors, and where necessary and appropriate, agents and business partners. These mechanisms include:

- a. a mandatory annual e-learning training and declaration covering all employees comprising the Keppel Group Code of Conduct and all other key compliance policies. For 2022, new e-training modules included Sanctions Compliance and Business Continuity Management. Where necessary and appropriate, compliance training for agents and business partners were also conducted during the year.
- b. corresponding certifications by such senior management members (including directors), employees, agents and business partners, acknowledging their understanding of policies and conformity with training requirements.

### Reporting & Investigation

GRI 2-16 | 205-3

The Keppel Whistle-Blower Policy took effect on 1 September 2004 and was enhanced on 15 February 2017, 1 May 2019 and 1 November 2021 to encourage reporting in good faith of suspected reportable conduct.

The Policy clearly defines and centralises processes through which such reports may be made with confidence that employees and other persons making such reports will be treated fairly and, to the extent possible, protected from reprisal.

In 2022, amongst the reported incidents of breaches to our Code of Conduct received through the Keppel Group Whistle-Blower channels, there were eight reports alleging corruption or bribery, one incident related to conflict of interest and another four incidents related to workplace harassment. Except for two harassment incidents which were substantiated and the employees were sent for counselling and coaching respectively, all remaining complaints were not substantiated or are currently under review. None of the reported incidents were related to customer privacy data, money laundering or insider trading.

Read more about our Whistle-Blower Policy and reporting mechanism on page 112 of our Annual Report 2022. More details about our Risk Management & Internal Controls framework are found on pages 99 to 103 of our Annual Report 2022.

### Compliance

GRI 2-27

On 19 December 2022, Keppel Offshore & Marine ("**KOM**") reached a joint resolution with the authorities in Brazil, namely Brazilian Attorney-General's Office ("**AGU**") and Comptroller General of the Union ("**CGU**"), in relation to the corrupt payments made by a former agent of KOM in Brazil, which was previously announced in December 2017. Following KOM's full cooperation with AGU's and CGU's investigations, KOM entered into a leniency agreement with the two Brazilian authorities and committed to a total payment of R\$343,571,455.25 (equivalent to approximately US\$65 million) in fines and damages. The Attorney-General's Chambers of Singapore ("**AGC**") and the Corrupt Practices Investigation Bureau ("**CPIB**") have confirmed that KOM may avail itself of the crediting of up to US\$52,777,122.50, pursuant to the terms of the CPIB Conditional Warning issued on 23 December 2017, in respect of the fines payable by KOM to the Brazilian authorities and KOM has made full payment of the fines and damages payable under the leniency agreement with the two authorities in January 2023. With the earlier leniency agreement with the Public Prosecutor's Office in Brazil (the Ministerio Publico Federal or "**MPF**") and this additional agreement, both of which provide for the payment of fines and damages in connection to the same matter, KOM does not expect further grounds for liability in Brazil in relation to these issues.

# Regulatory Compliance and Risk Management

The tone for regulatory compliance is driven from the top and resonates with our employees at every level. We remain vigilant and determined to build a disciplined and sustainable company.

## Performance Overview

GRI 3-3



### 2022 Targets

- Complete the digitalisation and streamlining of compliance processes across the Group.
- Strengthen risk and compliance culture through targeted training, communication and campaigns.
- Improve the Business Continuity Management programme with an added focus on cyber security and enhanced threat monitoring.
- Enhance risk management and compliance practices across the Group.
- Conduct scenario analysis to assess financial impact of climate-related physical risks on Keppel's key assets.



### 2022 Performance

- Implemented integrated digital system to enhance the Compliance process for Third Party Associates.
- Implemented Sanctions Compliance framework to enhance the operationalisation of Group Sanctions Policy.
- Enhanced annual e-training modules on Sanctions Compliance and Business Continuity Management.
- Conducted scenario analysis and stress-tests in Singapore and overseas to proactively assess potential risks.
- Completed cyber insurance placement for the Group.
- Completed financial impact assessment of climate-related physical risk for 62 key assets across the Group, as well as qualitative assessment of climate-related transition risks.



### 2023 Targets

- Continue to develop Risk Management and Compliance framework to proactively mitigate and manage key risks and avoid regulatory issues.
- Develop Group-wide key risk indicators for top risks to better quantify and assess risk.
- Strengthen risk and compliance culture through targeted training, communication and Group-wide initiatives.
- Develop Ethics and Compliance Culture Advancement programme for implementation across the Group.
- Continue to implement ISO 37001 Anti-Bribery Management System across business units.
- Enhance climate change risk assessment and management in line with TCFD recommendations.



### Longer Term Targets

- Implement technology and data analytics to support governance, risk and compliance processes.
- Continue to enhance climate change risk assessment and management.

# Corporate Governance and Risk Management

## Regulatory Compliance

We are guided by our core values and Code of Conduct. We will do business the right way and comply with all applicable laws and regulations wherever we operate. We strive to deliver outstanding performance, whilst maintaining the highest ethical standards.

We are clear with our tone for regulatory compliance, which is consistently emphasised from the top and throughout all levels of the Group. We do not tolerate fraud, bribery, corruption or any violation of laws and regulations.

### Strategic Objectives

GRI 205-1

In 2022, we continued to make significant progress in embedding a robust compliance framework and process throughout the Group. We continued to implement ISO 37001 Anti-Bribery Management System across business units (BUs) to ensure consistency and operational effectiveness of the compliance programme. During the year, overseas entities comprising Keppel Land India, Keppel Infrastructure Belgium and Qatar, as well as additional Singapore entities of Keppel Infrastructure achieved ISO 37001 certification.

Our compliance framework is designed to reflect the size, role and activity of each BU, with appropriate compliance control systems to effectively detect and remediate potential gaps. We are committed to forging a sustainable compliance framework that supports the Group's growth and vision.

### Governance Structure

Our Regulatory Compliance Governance Structure is designed to strengthen corporate governance. The Board Risk Committee (BRC) chaired by non-executive and independent director Ms Veronica Eng, supports the Board in its oversight of regulatory compliance and is responsible for driving the Group's implementation of compliance and governance systems. The Group Risk & Compliance department serves as a secretariat to the BRC, assessing and reporting on compliance risks, controls and mitigation.

The Group Regulatory Compliance Management Committee (Group RCMC) is chaired by Keppel Corporation's CEO and its members include all BU heads. The Group RCMC articulates the Group's commitment to regulatory compliance, and directs and supports the development and implementation of overarching compliance policies and guidelines.



The Group RCMC is supported by the Group Regulatory Compliance Working Team (Group RCWT), which is chaired by the Head of Group Risk & Compliance. The Group RCWT oversees the development and review of pertinent regulatory compliance matters, overarching compliance policies and guidelines for the Group. It also reviews and conducts compliance training and communication programmes.

Each BU has a dedicated Compliance Lead who is supported by the respective Risk and Compliance Teams and is responsible for driving and administering the compliance programme and agenda for the BU. This includes providing support to the BU management with subject matter expertise, process excellence and regular reporting to ensure that compliance risks are effectively assessed, managed and mitigated. We continue to strengthen the Group's Compliance Teams with additional professional and experienced officers.

Under the direction of Group RCMC and Group RCWT, BUs are responsible for implementing the Keppel Group Code of Conduct, as well as regulatory compliance policies and procedures. They are also

responsible for ensuring that risk assessments of material regulatory compliance risks are conducted, and that control measures are practical, adequate and effective.

### Regulatory Compliance Framework

Our Regulatory Compliance framework focuses on critical pillars covering the areas of culture; policies and procedures; training and communications; key compliance processes; as well as compliance risk assessment, reviews and monitoring, and compliance resources.

A key aspect of the framework is the structure of the compliance organisation. The Head of Group Risk & Compliance reports directly to the Chairman of the BRC. Similarly, the Compliance Leads of the BUs have direct reporting lines to the respective BUs' Audit and Risk Committees. In addition, BU Compliance Leads report directly to the Head of Group Risk & Compliance. This reporting structure reinforces independence of the function and enables the Board and management to provide continuous, clear and explicit support. It also lends credence to the Group's compliance programme.

## Corporate Governance and Risk Management

### Regulatory Compliance

#### Culture

Culture and mindset are critical in ensuring effectiveness and durability of our compliance programme. Management has a key role in setting the right tone and walking the talk. This helps to embed a strong and robust regulatory compliance programme, as well as a culture that permeates all levels.

Anti-bribery, anti-corruption and reporting mechanisms are widely publicised in our offices globally. We issue Group-wide bulletins on relevant topical issues to apprise, inform and reinforce compliance principles and messages. Key tone-from-the-top messages are also delivered periodically by BU heads to employees. Compliance moments were introduced as part of the agenda at meetings, where pertinent compliance topics and learnings are shared. We continue to work on initiatives to foster a positive compliance-centric culture.

#### Policies & Procedures

GRI 2-23

Keppel's management of sustainability matters is guided by various corporate policies which are reviewed and approved by the Board, the relevant Board committees or senior management as appropriate. These policies include:

- Keppel Group Code of Conduct
- Board Diversity Policy
- Global Anti-Bribery Policy
- Whistle-Blower Policy
- Competition Law Compliance Manual
- Insider Trading Policy
- Environmental Sustainability Policy
- Supplier Code of Conduct
- Health, Safety and Environment Policy
- Human Rights Policy
- Statement on Diversity & Inclusion
- Personal Data Protection Policy
- Safeguarding Information Policy

#### Keppel Group Code of Conduct

We have a strict Keppel Group Code of Conduct (the Code) that applies to all employees, who are required to acknowledge and comply with the Code.

The Code sets out important principles to guide employees in executing their duties and responsibilities to the highest standards of business integrity. It encompasses topics ranging from conduct in the workplace to business conduct, including clear provisions on prohibitions against bribery and corruption, and conflicts of interests amongst others. The Code is publicly available on the Group's and BUs' websites. We continue to review

and enhance the Code to ensure that it stays relevant and instructive. Appropriate disciplinary action, including suspension/termination of employment, is taken if an employee is found to have violated the Code.

We have procedures to ensure that disciplinary actions are carried out consistently and fairly across all levels of employees. All third parties who represent Keppel in business dealings, including joint venture (JV) partners, are also required to comply with and follow the requirements of the Code.

#### Supplier Code of Conduct

It is mandatory for all key suppliers across the Group to acknowledge and abide by our Supplier Code of Conduct. The areas covered within the Supplier Code of Conduct include proper business conduct, human rights, fair labour practices, stringent safety and health standards, as well as responsible environmental management.

#### Whistle-Blower Policy

Keppel's Whistle-Blower Policy encourages the reporting of suspected bribery, violations or misconduct through a clearly defined process and reporting channel, by which reports can be made in confidence and without fear of reprisal. The whistle-blower reporting channels, found on page 112 of our Annual Report 2022, are widely communicated and made accessible.

#### Personal Data Protection Policy

Guidance is provided to employees on the Personal Data Protection Commission's advisory guidelines to ensure compliance with the requirements of the Personal Data Protection Act (PDPA). When necessary and appropriate, the Group's guidelines are updated in accordance with changes in privacy laws and regulations.

The Keppel Group Personal Data Protection Policy (PDPP) applies to all staff in Keppel Corporation and its related companies. It informs and guides our employees on activities which involve the collection, use, disclosure, storage, transfer and retention of personal data. Entities that perform services for or on behalf of a group company, including vendors, contractors, partners and agents, are also expected to comply with the PDPP. We have a designated Data Protection Officer within each BU that staff can reach out to in case of any data protection or privacy issues and concerns. Failure to comply with this Policy may result in penalties and fines imposed by the law and disciplinary actions by

the respective BU. BUs such as M1, which is the first telecommunications provider in Singapore to receive the Data Protection Trustmark (DPTM) certification<sup>1</sup> by the Infocomm Media Development Authority, and Keppel Electric<sup>2</sup> conduct external audits on compliance to the PDPA.

Keppel Group companies are generally required to seek and obtain an individual's consent before collecting, using or disclosing any personal data pertaining to him. This includes informing customers of the nature of information captured and the use of the information. Customers can decide the purposes for which their personal data is collected, used, retained and processed through an opt-out option, and are entitled to withdraw their consent at any time where reasonable notice has been given.

#### Compliance Policies

We maintain a comprehensive list of policies covering compliance-related matters including anti-bribery, gifts and hospitality, dealing with third-party associates (TPA), donations and sponsorships, solicitation and extortion, conflict of interest and insider trading, amongst others. These policies are reviewed periodically to ensure that they commensurate with the activities and business plans in the jurisdictions in which the Group operates. Group policies are applicable to all BUs. Unless the jurisdictional regulatory requirements are more stringent, these policies represent the minimum standards for the Group. We ensure that all compliance policies, including translated versions, are made available and accessible to all employees globally.

We maintain a Group Sanctions Compliance policy and BU-specific sanctions programme, and continually monitor updates on sanctions requirements.

#### Training & Communications

GRI 205-2

Training is an essential component of Keppel's regulatory compliance framework. Our programmes are tailored to specific audiences and we leverage Group-wide forums to reiterate key messages.

We have a comprehensive annual e-learning training programme which covers the Keppel Group Code of Conduct and key principles underlying our compliance policies. All directors and employees are

<sup>1</sup> In line with the DPTM framework, M1 informs customers on the nature of information captured; the use of the collected information; possibility for customers to decide how private data is collected, used, retained and processed (opt-out option is available, opt-out consent is required, request access to data held by the company, request their data be corrected or deleted); how long the information is kept on corporate files; how the information is protected; and third-party disclosure policy (private and public entities).

<sup>2</sup> In compliance to the PDPA, Keppel Electric has fulfilled the external audit requirements as mandated by Singapore's Energy Market Authority.



required to undergo the e-training and to formally acknowledge their understanding of the policies and declare any potential or actual conflicts of interest. Training on anti-bribery and the Code in multiple languages are carried out for industrial/general workers, while e-training outlining the principles underpinning the Group's policies and key areas to note when representing or acting on Keppel's behalf is conducted for high-risk TPAs.

We continue to refine our compliance training programmes and curriculum. In 2022, new e-training modules covering Sanctions Compliance and Business Continuity Management were introduced into the annual e-learning training programme.

In addition to policy-related training, we conduct training that focus on the line managers' responsibilities in developing the desired culture and mindset regarding compliance. These include the need to establish and maintain effective internal controls to ensure that processes are robust, and that potential gaps are identified and mitigated in a timely manner.

We aim to engender positive compliance mindsets and culture, and we see this guiding our employees in critical facets of their work. Training focused on building risk and compliance competencies are organised to ensure that we are apprised of changes in approaches, best practices and tools.

To drive greater compliance awareness and knowledge throughout the Group, we issue a quarterly news bulletin on compliance, risk and control matters. In 2022, we enhanced the bulletin, with a focus on topical risk and compliance matters including sanctions, anti-money laundering and phishing attacks, together with a segment on lessons learnt, to reinforce awareness and understanding of ethics and compliance considerations amongst employees.

## **Key Processes**

### **Due Diligence**

We continue to improve our risk-based due diligence process for all TPAs who represent the Group in business dealings, including our JV partners, to assess the compliance risk of the business partner. In addition to background checks, the due diligence process incorporates requirements for TPAs to acknowledge understanding and compliance with the Code. In 2022, the due

diligence process for the onboarding and monitoring of TPAs was further enhanced with the implementation of a system platform and solution to standardise and automate processes across the Group.

### **Other Processes**

As part of our ongoing review of policies and procedures, we ensure compliance oversight is embedded in key processes including areas such as gifts and hospitality, agent fees, donations and sponsorships, as well as conflicts of interest. We also actively seek opportunities for digitisation and continually explore the use of data analytics to enhance value and ensure efficiency of our compliance processes.

In addition to the mandatory annual declaration of conflict of interest by all employees of Keppel Group, a Conflict of Interest App was launched to facilitate the conflict of interest review and conflict resolution process.

The Russia-Ukraine conflict has led to several sanctions and export control measures imposed by governments globally and we continue to remain vigilant and monitor the impact to the Group, with action taken accordingly under our sanctions framework.

### **Risk Assessment, Review & Monitoring**

We continually develop Keppel's compliance resources and framework. This enables the Compliance Team to conduct independent risk assessments to identify and mitigate key compliance risks. Regular discussions are held with all BUs, focusing on risk assessments including specific compliance risks identified for each BU. Separately, independent reviews of compliance risks are executed within the scope of internal audits, including reviews of the effectiveness of key aspects of our compliance programmes. These reviews provide valuable insights and opportunities for us to improve our processes and programmes.

ISO 37001 processes also assist in risk assessment exercises, providing even more systematic coverage and evaluations.

### **Resources**

We recognise the need for an experienced Compliance Team to effectively support compliance advisory, as well as to ensure that compliance programmes and controls are effectively implemented. The Board and management are committed to ensuring that we sustain a strong compliance function.

# Corporate Governance and Risk Management

## Risk Management

### Risk Management

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 and evolving business demands, as well as to seize new business opportunities.

Mindsets and attitudes are key to effective risk management. The Group fosters a risk-centric culture through several aspects as shown in Figure 1.

### 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 Keppel Corporation's Annual Report 2022.

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 of our Annual Report 2022 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 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, ISO 31000 and the Board Risk Committee Guide published by the Singapore Institute of Directors.

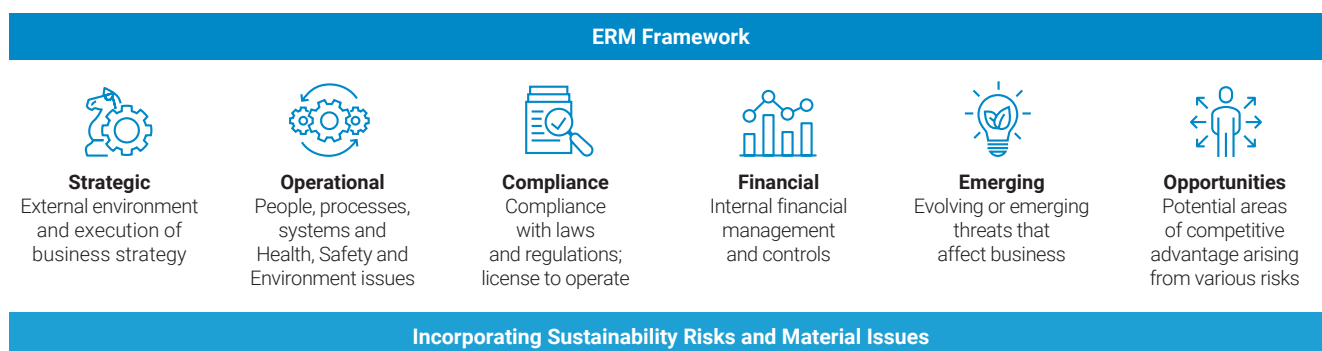
Management and Risk Teams across BUs closely drive and coordinate Group-wide activities and initiatives under the ERM framework. These are facilitated by regular meetings on policies or standards, to ensure that pertinent risks are identified, assessed and mitigated in a timely manner. Beyond operational 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.

Figure 1



Figure 2



**Incorporating Sustainability Risks and Material Issues**

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 such as volatility in the global economy, including rising interest rates and inflation, and geopolitical tensions. Despite the many challenges faced by our businesses, the Group 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 continue to 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 2). 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 assess both physical and transition risks for the Group and strengthen our organisational capabilities in response. In 2022, the Group conducted a quantitative scenario analysis of the potential financial impact of climate-related physical risks on the Group’s key assets, as well as a qualitative assessment of climate-related transition risks. More details are provided on page 26 of this report.

## Corporate Governance and Risk Management

### Risk Management

#### Customer & Stakeholder Experience

The Group operates in many geographies and has multiple customer touchpoints, including retail consumers in the telecommunications, retail electricity, e-commerce and gas businesses. Other stakeholders include our regulators, investors, vendors, partners, employees, and the communities in which we operate. We value Customer and Stakeholder Experience which has 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 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 environments. 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.

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 to 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.

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 international 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. These include 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 has in place a dedicated Group Cyber Security function headed by a General Manager with a reporting line to the Board Risk Committee, to reinforce independence and facilitate Board oversight. In 2022, the Group formed a Digital Transformation Steering Committee to provide strategic guidance and endorse Group-wide technology vision, initiatives and policies to achieve alignment and optimisation in achieving business strategies.

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, 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 Information Technology (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. These include:

- a. Safeguarding internal assets from emerging threats by extending our layered cyber security controls;
- b. Strengthening the ability to detect and respond to cyber threat actors;
- c. Conducting annual disaster recovery plan exercises to ensure timely recoverability of business-critical IT systems;
- d. Conducting cyber tabletop exercises involving executive leadership annually to evaluate preparedness and ensure that cyber incident response plans and processes are rigorous and robust;

- e. Engaging independent security service providers to conduct vulnerability assessments to further strengthen our IT systems;
- f. Implementing recommendations from assessments and exercises to further strengthen cyber resilience;
- g. Engaging cyber risk rating service for an external view of cyber risks; and
- h. Implementing the Cyber and Technology Reporting framework for common and consistent reporting across the Group.

Training and assessment exercises were also conducted throughout the year to heighten employees' overall awareness of technology and cyber threats.

In addition, Keppel has a set of Group technology policies that was established according to leading industry guidelines such as ISO 27001, US National Institute of Standards and Technology as well as local regulators' requirements and guidelines. These are regularly reviewed to ensure that the control requirements remain relevant in the current cyber and technology risk landscape.

Independent external audits as well as internal audits are performed regularly on Keppel's IT policies, IT infrastructure and information security management systems to ensure the adequacy and effectiveness of the controls. Vulnerability assessment and penetration testing are conducted to identify security vulnerabilities in Keppel's environment. Appropriate mitigations/remediations are carried out to reduce or remove associated risks, enabling the Group to better protect its systems and data from malicious attacks.

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 the Keppel Technology and Innovation team, 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 to 27 and 44 to 45 of our Annual Report 2022.

## Corporate Governance and Risk Management

### Risk Management

#### 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 expediently.

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 our Annual Report 2022.

#### 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 on pages 100 to 101 of our Annual Report 2022.

#### 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 our Annual Report 2022. 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.

#### Emerging Risks

##### Climate-related Physical Risks

According to the Intergovernmental Panel on Climate Change (IPCC) 2022 report<sup>1</sup>, climate change is causing widespread disruption in the world with extreme heat, droughts and floods threatening food security and livelihoods, wildfires causing irreversible changes to landscapes and higher temperatures harming species and ecosystems.

In 2021, the Group conducted a high-level physical risk assessment to evaluate the potential impact of seven climate-related hazards on 50 key assets globally, based on Representative Concentration Pathways (RCP) 2.6, RCP 4.5 and RCP 8.5<sup>2</sup> scenarios, and with projections for 2030 and 2050. Based on the assessment, the key physical risks faced by the Group's assets are sea-level rise, water stress and heatwaves.

<sup>1</sup> IPCC 2022 Report on Climate Impacts, Adaptation and Vulnerability.

<sup>2</sup> Based on the Representative Concentration Pathways (RCP) GHG concentration trajectory adopted by the IPCC, where RCP 2.6 is a pathway that limits global warming to below 2°C, while RCP 4.5 and RCP 8.5 are intermediate and worst-case climate change scenarios.

In 2022, a quantitative analysis of physical climate-related risks on 62 key assets globally was conducted based on Shared Socioeconomic Pathways (SSP) 1-2.6, SSP2-4.5 and SSP5-8.5<sup>3</sup> scenarios, with projections for 2030, 2050 and 2070, and took into consideration the value at risk from potential physical damage losses.

Read more about the climate-related physical risks and the adaptation measures we have undertaken on page 26 of this report.

### Climate-related Transition Risks

As the world progressively transits to a lower-carbon economy, transition risks such as policy, legal, technological and market changes may pose varying levels of financial, operational and reputational risks for Keppel.

The Group conducted an assessment of the climate-related transition risks in 2022, based on three climate scenarios, namely SSP3-7.0, SSP2-4.5, and International Energy Agency's (IEA) Net Zero Emissions (NZE) scenario<sup>4</sup>, covering the short term (1 to 3 years), mid term (up to 2030), and long term (up to 2050).

Based on the study, evolving regulations on climate taxonomies; higher carbon taxes, stricter regulations and uncertain price developments in carbon markets and Renewable Energy Certificates leading to higher cost of decarbonisation efforts; as well as higher expectations on climate disclosures, decarbonisation plans and targets, including climate litigation risks, were identified as potential risks to the Group. At the same time, market demand for new low-carbon products and services, innovation and improvements in low-carbon technologies, as well as higher expectations of companies on decarbonisation will create opportunities for Keppel.

Read more about the climate-related transition risks and the adaptation measures we have undertaken on page 26 of this report.

### Heightened Geopolitical Risks

Geopolitical risks have risen with the Russia-Ukraine war and heightened tensions among major powers, especially the US and China. Geopolitical tensions in the Asian region pose a significant risk to Keppel's businesses, given our exposure to China and the rest of Asia. Any major escalation of tensions may have a detrimental effect on the Chinese economy, which is one of the key markets for the Group, especially Keppel Land. The economic success of Singapore and Asia is also greatly influenced by the economic growth of China.

In view of the heightened geopolitical risks, we are monitoring international developments closely. We have also conducted a Group-wide scenario planning exercise to assess potential risks from several global macroeconomic, geopolitical and climate-related scenarios. The scenarios served to generate inputs for the Board and management when considering the company's strategy, while also identifying potential risks and opportunities. Playbooks with action plans have been developed to prepare for the possibility of any of the risk scenarios becoming a reality.

### Cyber Security Risks

The cyber threat landscape faced by Keppel is increasing in risk. The threat actors have become more sophisticated, such as cyber attacks combined with ransomware. International political tensions have further increased the risk of nation-state cyber threats. The risk of cyber attacks impacting our business will increase, especially in Connectivity and Energy & Environment segments, as Keppel continues its digitalisation journey as a key enabler to achieve our Vision 2030 goals.

To mitigate such risks, we are taking a proactive approach to continuously enhance our cyber security defences using the latest technology industry expertise. We conduct regular training for our employees to reinforce the awareness of cyber threats, such as infiltration through phishing, and the need to stay vigilant as a key line of defence. Read more about the measures we have undertaken to strengthen our technology and cyber security governance and controls on page 60 to 61 of this report.

<sup>3</sup> Shared Socioeconomic Pathways are based on the IPCC Sixth Assessment Report, where the SSP1-2.6 scenario has very low GHG emissions and global warming of below 2°C in 2100, while SSP2-4.5 and SSP5-8.5 refer to the intermediate and very high GHG emissions scenarios respectively.

<sup>4</sup> The SSP3-7.0 scenario has very high GHG emissions and global warming of 2.8°C to 4.6°C by 2100, while the SSP2-4.5 refer to the intermediate GHG emissions scenario with global warming of 2.1°C to 3.5°C by 2100. IEA's NZE is a scenario that combines socioeconomic conditions with a declining emissions pathway to reach Net Zero by 2050, resulting in global warming of 1°C to 1.8°C by 2100.

# Economic Contribution to Society

Keppel aims to create economic value for its stakeholders as a leading global asset manager and operator, creating solutions for a sustainable future.

## Performance Overview

GRI 3-3

During the year, we made good progress in executing our Vision 2030.



### Scaling Up in Vision 2030 Growth Areas

- Achieved Assets under Management (AUM) of \$50 billion by end-2022<sup>1</sup>.
- Keppel Capital completed more than \$7.7 billion in acquisitions and divestments and launched flagship funds for infrastructure and sustainable urban renewal (SUR).
- Expanded business in renewables, clean energy and environmental solutions, and bolstered Energy-as-a-Service offerings. Reached final investment decision for 600 MW state-of-the-art hydrogen-ready, advanced combined cycle power plant. Exploring green ammonia and green hydrogen solutions to support low-carbon economy.
- More than doubled announced portfolio of renewable projects to 2.6 GW from 1.1 GW at start of 2022.
- Pivoting away from traditional developer model to offer Real Estate-as-a-Service, with focus on SUR and senior living. Embarked on first senior living community in Nanjing, China.
- Driving development of energy-efficient and sustainable assets with proposed Floating Data Centre Module and green data centre park. Scaled up data centre presence with acquisitions in China and the UK, bringing total portfolio to 32 assets.
- Making good progress with the Bifrost Cable System to be service-ready in 2024.
- Making headway in M1's transformation into a cloud native connectivity platform, with continued enterprise business growth. Achieved over 95% outdoor 5G standalone network coverage.



### Simplifying and Focusing the Group's Business

- Completed offshore & marine transactions by early-2023.
- Completed divestment of logistics business in Southeast Asia and Australia.



### Asset Monetisation

- Announced asset monetisation of more than \$4.6 billion since 4Q 2020, of which \$1.6 billion was in 2022.
- \$3.6 billion<sup>2</sup> cash collected as at end-2022.



### Executing Asset-light Business Model

- Announced joint investments worth \$2.8 billion with private funds and business trust managed by Keppel Capital in energy & environment and SUR-related assets and platforms in line with OneKeppel approach.



### Advancing Cross-Business Unit Collaboration

- External revenue from cross-business unit collaboration across the Group amounted to about \$560 million<sup>3</sup>, increasing by about 60% from 2020, when Vision 2030 was launched.
- Majority of new projects launched by Group involved cross-business unit collaboration.
- Advanced value-chain integration by establishing OneRE, OneInfra and OneDC teams<sup>4</sup> across the Group's focus areas.

<sup>1</sup> Gross asset value of investments and uninvested capital commitments on a leveraged basis to project fully-invested AUM.

<sup>2</sup> Includes \$0.2 billion received on the sale of 1 Borr rig, which has been transferred to Asset Co as part of initial working capital.

<sup>3</sup> External revenue from cross-business unit collaboration is an internal management metric that includes share of economic benefits from joint ventures, associates and certain investments.

<sup>4</sup> OneRE – One Real Estate; One Infra – One Infrastructure; OneDC – One Data Centre.



## Overview

GRI 3-3

Keppel creates direct and indirect economic value for its stakeholders. Keppel's business operations generate employment for its staff, opportunities for suppliers, products and services for its customers, and tax revenues for governments.

With the world focusing increasingly on sustainable development, climate change and digitalisation, Keppel is in the right space and at the right time to provide solutions which are good for the planet, people and the Company.

In addition to the value that it creates through its businesses, Keppel is committed to positively impact the communities in which we operate, and contribute to worthy social causes and industry advancement through community investments, commercial initiatives and charitable donations. These are addressed in greater detail under the section on Community Development on pages 89 to 96 of this report.

## Report Boundary

GRI 3-3

The reporting boundary for financial data in this section is the same as that of Keppel Corporation's Annual Report 2022.

## Management Approach

GRI 3-3

In May 2020, Keppel unveiled Vision 2030, the Group's long-term roadmap to guide its transformation and growth as one integrated company, providing solutions for a sustainable future, with sustainability at the core of the Company's strategy.

Vision 2030 helps to define Keppel's purpose, focuses its business and ultimately aims to accelerate growth and create value for all stakeholders. It positions Keppel to seize opportunities against the backdrop of key macro-trends that are shaping the world, including rapid urbanisation, climate change, energy transition, growing digitalisation, and ageing populations.

The Group is focused on delivering value to our stakeholders as a leading asset manager, with strong operating capabilities in energy and environment, urban development and connectivity. These are areas in which Keppel has strong expertise and track records,

where we can both create value for investors, and contribute to global sustainable development efforts.

## Financial Performance and Economic Value Generated

GRI 201-1

The Group achieved a net profit of \$927 million for 2022, bolstered by stronger results in Asset Management and Energy & Environment. Net profit was 9% lower compared to \$1.02 billion in FY 2021.

In 2022, Keppel generated \$10,621 million of economic value for our stakeholders, which was distributed through our business operations to suppliers, contractors, subcontractors, employees, investors, governments and community organisations, among others. The majority of the economic value retained by Keppel after this distribution is invested in capital expenditure and acquisitions, as we seek to sharpen our competitive edge and stand ready to seize growth opportunities.

## Economic Value Distributed

GRI 201-1

### Operating Costs

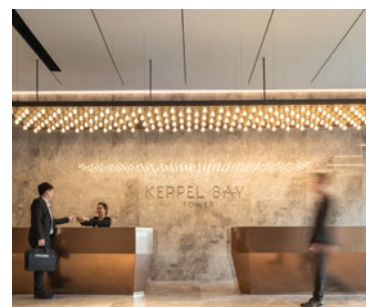
In 2022, operating costs of \$7,739 million included purchases from suppliers and contractor costs, as well as other expenses.

### Employee Wages & Benefits

In 2022, staff costs globally amounted to \$1,133 million<sup>5</sup> in the form of wages and salaries, employer's contribution to Singapore's Central Provident Fund and other equivalent pension schemes in different countries, share plans, as well as other staff benefits. The total workforce as at end-2022 was 19,163<sup>6</sup>.

### Capital Providers

Total cash dividend for 2022 was 33.0 cents per share, the same as the total dividend in 2021. This comprises a final cash dividend of 18.0 cents per share as well as an interim cash dividend of 15.0 cents per share paid in the third quarter of 2022. It does not include the distribution *in specie* on 1 March 2023 of approximately 19.1 Sembcorp Marine shares to our shareholders for every Keppel Corporation share held, with a value of \$2.19 per Keppel Corporation share<sup>7</sup>, based on Sembcorp Marine's closing price of 11.5 cents per share on 1 March 2023, which is the first trading day of Sembcorp Marine post combination.



### Net Profit

**\$927m**

Compared to \$1.02b for FY 2021

### Recurring Income

**\$560m**

More than double of \$262m<sup>8</sup> in FY 2021

### Net Gearing

**0.78x**

at end-2022, compared to 0.68x at end-2021

### Free Cashflow

**\$408m**

outflow, compared to \$1.76b inflow in FY 2021

### ROE

**8.1%**

Compared to 9.1% for FY 2021

### Total Dividend

**33.0 cts**

Cash dividend per share, unchanged from FY 2021

<sup>5</sup> Excludes capitalised staff costs in stocks and work-in-progress and capital expenditure.

<sup>6</sup> The Group's average number of employees in 2022 was 17,238. The figures in this section do not take into account the headcount and staff costs of associated companies, whereby an associated company is an entity, not being a subsidiary, over which the Keppel Group has significant influence but not control.

<sup>7</sup> This figure of \$2.19 is rounded to the nearest two decimal places; calculated based on a division of (i) the cash equivalent amount of the dividend declared by the Company of \$3,845,164,646.11, by (ii) the Company's issued and paid-up share capital as at the Record Date of 1,751,959,918 KCL Shares (excluding treasury shares).

<sup>8</sup> The recurring income in FY 2021 was restated, as Keppel O&M's income was re-classified as discontinued operations.

## Economic Contribution to Society

### Communities

In 2022, the Group invested around \$4.3 million in social investment spending and industry advancement, including close to \$1.9 million disbursed through Keppel Care Foundation, the Group's philanthropic arm.

### Taxes

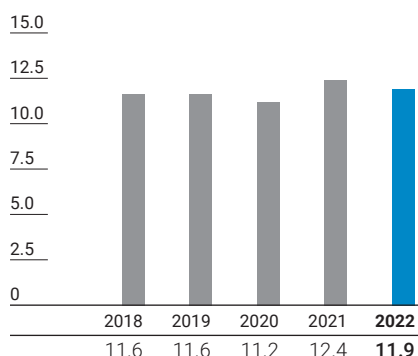
GRI 2-27 | 207-1 | 207-2 | 207-3 | 207-4

Keppel is committed to ensuring that its approach towards tax management is executed responsibly and with integrity. The Group Tax department monitors and maintains oversight of Keppel's tax matters by regularly collaborating with, and closely supporting, the business and finance teams, as well as other internal stakeholders on various tax planning initiatives and tax compliance matters.

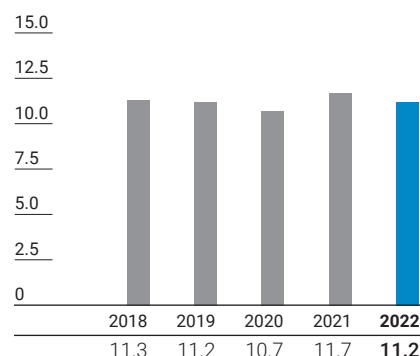
Keppel discloses its tax strategy and approach to tax risk management in jurisdictions where it is a regulatory requirement. Keppel's overall approach towards responsible tax management is guided by the Group's broader corporate governance and risk management framework, which includes the following core tax principles:

- Comply with all relevant tax laws, regulations and regulatory disclosure requirements across the countries and jurisdictions in which the Group operates.
- File tax returns accurately and in a timely manner, and fulfil tax obligations.
- Ensure the Group pays the right amount of taxes which are legally due in the jurisdictions where it conducts its activities.
- Exercise due care and professional judgement in dealing with tax matters, including engaging external tax advisors/experts for professional advice and seeking advance ruling from the tax authorities, as appropriate.
- Avoid tax positions that may lead to excessive tax risks.
- Regularly communicate and report material tax findings and identified tax risks to the appropriate management levels.
- Act responsibly in relation to tax planning matters and do not pursue aggressive tax plans.
- Utilise tax incentives that are generally offered and prescribed by relevant authorities to eligible taxpayers that undertake genuine business activities, and seek to implement these tax incentives in accordance with the relevant statutory, regulatory or administrative framework.
- Cooperate with all legislative authorities in an open and transparent manner, and consistently adopt a proactive and cooperative approach to resolve any tax issues with authorities in a timely manner.
- Conduct transactions and implement business arrangements or structures that are supported by genuine business purposes/commercial rationale, and that comply with the relevant tax laws.

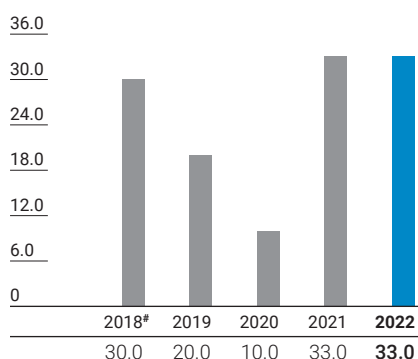
### Total Equity (\$b)



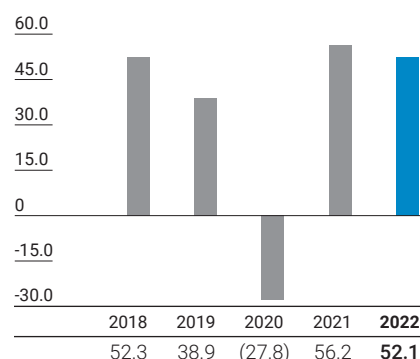
### Shareholders' Funds (\$b)



### Total Distribution per Share (cts)



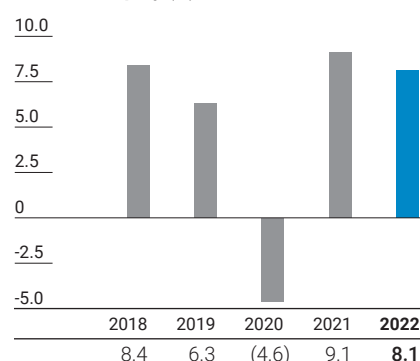
### Earnings per Share (cts)



The Group operates in about 20 countries. In 2022, the Group contributed \$388 million in taxes to the various countries and tax jurisdictions in which it operates. Information on the Group's tax payable by its various business segments in 2022 and total tax payable to governments over a five-year period are disclosed on pages 213 and 243 respectively of Keppel Corporation's Annual Report 2022.

Keppel also participates in cooperative compliance programmes, such as the Singapore Goods and Services Tax (GST) Assisted Compliance Assurance Programme (ACAP), where there are suitable opportunities. The ACAP is a compliance initiative by Singapore's tax authority, the Inland Revenue Authority of Singapore (IRAS), which was introduced for businesses to voluntarily undertake a holistic risk-based review on the robustness and effectiveness of their internal controls to manage their GST risk and enhance their GST compliance capability. The Group also actively participates in feedback sessions on tax-related matters organised by regulatory authorities, public accounting firms and relevant professional bodies such as the Singapore International Chamber of Commerce and the Real Estate Developers' Association of Singapore.

### Return on Equity (%)



<sup>#</sup> Includes the special dividend paid of 5.0 cents per share.

Economic Value Generated by Keppel	Economic Value Distributed to Others	Economic Value Retained by Keppel
<b>\$10,621m</b> This includes revenue, interest and investment income, share of results of associates and joint ventures, disposal gains as well as fair value gains.	<b>Operating Costs</b> <b>\$7,739m</b> This includes purchases from suppliers and contractor costs, and other expenses.	<b>\$376m</b> The majority of this is invested in capital expenditure and acquisitions.
	<b>Employee Wages &amp; Benefits*</b> <b>\$1,133m</b> Employee costs include salaries and benefits.	
	<b>Capital Providers</b> <b>\$981m</b> This includes dividends and interest paid.	
	<b>Governments</b> <b>\$388m</b> This includes income taxes paid, net of refunds received.	
	<b>Communities</b> <b>\$4.3m</b> This includes voluntary contributions to worthy social causes through charitable donations, community investments and commercial initiatives.	

\* Excludes capitalised staff costs in stocks and work-in-progress and capital expenditure.

The Group is mandated to file Country-by-Country Reports (CbCR) with IRAS annually<sup>1</sup>. The CbCR includes information on the Group's global allocation of the income and taxes paid in different jurisdictions and other financial data. CbCR submitted to IRAS will be provided to tax authorities of jurisdictions with which Singapore has qualifying competent authority agreements for the bilateral automatic exchange of CbCR information.

Keppel's Whistle-Blower Policy encourages reporting in good faith of suspected reportable business conduct, including matters that compromise the organisation's integrity in relation to tax. More information on the Group's Whistle-Blower Policy can be found on page 99 of our Annual Report 2022.

#### Government Assistance Received

GRI 201-4

In 2022, the Group received a total of \$19 million in financial assistance from governments. Approximately 89% of financial assistance received was from the government of Singapore, comprising mainly 5G trial grant, cash grants under its Jobs Growth Incentive, Wage Credit and Special Employment Credit schemes and training grants. The remaining 11% was mainly from the governments of China and Belgium.

#### Indirect Economic Impacts

GRI 203-1 | 203-2

Keppel contributes indirectly to the economy through our operations and running our business with sustainability at the core of our strategy.

The completed combination of Keppel Offshore & Marine (Keppel O&M) with Sembcorp Marine in February 2023 has created a premier global

player providing offshore renewables, new energy and cleaner solutions in the offshore & marine sector. The combination is expected to further strengthen Singapore's position as a maritime and offshore & marine hub, and unlocks synergies by bringing together the strong track records and capabilities of the two companies, putting the Combined Entity in a strong position to expand and compete more effectively in its areas of focus amidst the energy transition.

We are growing our business in renewables, clean energy and decarbonisation solutions in support of the global transition to a low carbon economy. In 2022, we announced about \$2.8 billion worth of energy and environment and sustainable urban renewal-related investments, jointly undertaken by Keppel together with the private funds and/or business trust managed by Keppel Capital. The investments included onshore and offshore wind energy assets in Europe, a waste management services platform in Korea as well as the development of Singapore's first hydrogen-ready advanced combined-cycle power plant, among others.

During the year, Keppel Infrastructure commenced Singapore's first renewable energy import from Lao PDR as part of the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP). The LTMS-PIP serves as a pathfinder towards realising the broader ASEAN Power Grid (APG) vision of multilateral electricity trading beyond neighbouring countries in the region. The APG is a key regional initiative to enhance interconnectivity, energy security and sustainability through existing electricity interconnections. This provides opportunities

to tap on low-carbon and renewable energy sources in the region and contributes towards economic development and improving energy security and stability.

In 2022, Keppel Land expanded its sustainable urban renewal (SUR) offerings in Korea with the acquisition of Samhwan Building in Seoul jointly with private funds managed by Keppel Capital, where it will apply its SUR capabilities to retrofit, future-proof and extend the lifespan of the office building. Keppel Land will deploy its in-house design capability to map out customer or tenant journeys, before formulating suitable configurations or services that value-add to their experiences. It will also harness digital technologies and the Internet of Things (IoT) to develop smart platforms that can both enhance user experience as well as greatly reduce the asset's carbon footprint.

Keppel Capital continues to grow its assets under management, expanding its asset classes and growing recurring fee income. Amidst heightened concerns about inflation, there is strong demand from investors for the real assets that the Group manages, which can serve as effective inflation hedges.

Keppel Telecommunications & Transportation also made good progress in the development of the Bifrost Cable System, which is set to meet the growing digital connectivity needs between Southeast Asia and the west coast of North America, when completed in 2024. As at end-2022, M1 had achieved over 95% outdoor coverage in its 5G Standalone network rollout in Singapore and launched various 5G solutions providing fast-speed connectivity, immersive metaverse experiences and edge computing solutions.

<sup>1</sup> The CbCR includes information on the key business, financial and tax information for each tax jurisdiction that the Group operates in. It includes the name of the constituent entity and tax identification number, country of incorporation, tax jurisdiction, main business activities, number of employees, revenues, profit (loss) before tax, income tax accrued (current year) and income tax paid (on cash basis), stated capital and accumulated earnings, as well as tangible assets (other than cash and cash equivalent).

# Supply Chain Management

We work with stakeholders in our supply chain to positively influence their sustainability performance.

## Performance Overview

GRI 3-3



### 2022 Targets

- Screen 100% of new suppliers in accordance with ESG criteria.
- To have 100% of all qualified suppliers endorse the Keppel Supplier Code of Conduct.
- Progressively expand coverage to include the remaining five out of 15 categories of Scope 3 emissions.



### 2022 Performance

- Screened 100% of new suppliers in accordance with ESG criteria.
- 99.83% of qualified suppliers endorsed the Supplier Code of Conduct, while others had their own codes of conduct which met Keppel's requirements.
- Expanded tracking of Scope 3 carbon emissions to cover all categories, including those which are relevant to the Group's suppliers.



### 2023 Targets

- Screen 100% of new suppliers in accordance with ESG criteria.
- To have 100% of all qualified suppliers endorse the Keppel Supplier Code of Conduct.
- Continue to track all relevant categories of Scope 3 carbon emissions.



### Longer Term Targets

- Screen 100% of new suppliers in accordance with ESG criteria.
- To have 100% of qualified suppliers endorse the Keppel Supplier Code of Conduct.
- Expand screening to include significant water and waste impacts in the supply chain.

## Overview

GRI 3-3

The Group contracts Singapore and overseas suppliers for its different businesses. We recognise the importance of supply chain risk management and sustainable procurement in building operational resilience. We are committed to building a resilient, responsible and diversified supply chain, including through integrating environmental, social and governance (ESG) criteria in the selection, monitoring and assessment of our suppliers. We also actively engage with suppliers to adopt sustainable and responsible business practices, minimise social and environmental impacts and manage risks across our supply chains.

## Report Boundary

GRI 3-3

The data reported in this section covers global operations and all subsidiaries over which the Group has management control.

## Management Approach

GRI 3-3

The Group Supply Chain Committee<sup>1</sup> drives and monitors the Group's sustainability

performance in key aspects of supply chain management. It supports the Group in its ESG efforts to steward sustainability mindsets and best practices among suppliers, green the supply chain by reducing carbon emissions associated with the Group's suppliers, as well as monitor and ensure that the suppliers adhere to high standards of business conduct, human rights, labour rights/decent work, health and safety, and environmental management. The Committee meets at least four times a year and reports regularly on its progress in the above areas to the Group Sustainability Working Committee, and to the Management Executive Committee where relevant.

Keppel engages more than 2,500 suppliers globally<sup>2</sup>, with the majority of the suppliers in Asia, Europe and the Americas. Each business unit monitors the number and type of suppliers, as well as the spend value and geographical spread.

Key priorities of our supply chain management strategy include cost optimisation, product

quality, track record of suppliers, as well as alignment to ESG criteria and ethical practices set out in Keppel's Supplier Code of Conduct (SCOC).

We adhere to local content requirements and are committed to strengthen our base of local suppliers in countries where we operate. In doing so, we support domestic economic growth, generate employment opportunities and improve the capacities of the workforce in these countries.

As part of our Business Continuity Management processes, the Group has supplier diversification programmes in place to prepare for any major supply chain disruptions that may arise.

We have also expanded our tracking of Scope 3 carbon emissions to cover the emissions generated by our supply chain<sup>3</sup>, and are working with our suppliers and portfolio of investments to improve energy efficiency and reduce emissions where possible.

## Our Supply Chain

GRI 2-6

Division	Description
Asset Management	Keppel's asset managers engage subcontractors to ensure smooth operations and maintenance of the assets owned by the Group's listed REITs or business trust. The supply chain also includes mechanical and electrical equipment suppliers for data centres, as well as property and facility management companies that provide building management, physical security, technical maintenance and routine cleaning services.
Energy & Environment	<p>Keppel Infrastructure engages consultants, system integrators, equipment manufacturers and suppliers, and subcontractors for the construction of plants and facilities and for the provision of environmental technology, Energy-as-a-Service integrated solutions and new energy solutions. We also purchase raw materials, such as feedstock, to power the co-generation plant for our Power &amp; Renewables business. In addition, we procure goods and services for the operations and maintenance of the Group's plants and facilities. Some 74% of these suppliers are based in Asia and 25% in Europe.</p> <p>Keppel Offshore &amp; Marine (Keppel O&amp;M)<sup>4</sup> works closely with subcontractors to construct, convert and repair offshore energy and infrastructure assets and marine vessels in its shipyards. Equipment manufacturers supply large-scale as well as specialised purpose-specific equipment for installation on the offshore and marine vessels that Keppel O&amp;M constructs for its clients.</p>
Urban Development	<p>Keppel Land engages consultants, contractors, and interior design firms to provide architectural and engineering design, construction and interior design services for its real estate developments.</p> <p>As a manager of real estate properties, Keppel Land also employs facility management companies to service its commercial buildings.</p>
Connectivity	<p>Keppel Data Centres engages external contractors for the construction of new data centre facilities, and employs facility technician companies for regular equipment maintenance.</p> <p>Keppel Networks engages suppliers of submarine communication network solutions and services to perform works from design and engineering to installation, maintenance and support in the development of robust and reliable subsea optical cable systems.</p> <p>M1 engages suppliers to support its provision of telecom equipment and services, terminals and devices, Information and Communications Technology (ICT) solutions, software and computer hardware products, as well as cable installation. More than 90% of these suppliers are based in Singapore, in line with M1's primary market.</p>

<sup>1</sup> The Group Supply Chain Committee consists of representatives from each business unit, with relevant knowledge, skills and experience in supply chain and/or procurement and sustainability-related issues.

<sup>2</sup> Total number of suppliers engaged by the Group's business units, including those engaged by Keppel O&M.

<sup>3</sup> Refer to pages 40 and 41 for more details on our Scope 3 emissions.

<sup>4</sup> Keppel O&M has been divested with effect from 28 February 2023.

## Supply Chain Management

### ESG Integration in Supply Chain Management Strategy

GRI 308-1 | 414-1

We have woven ESG objectives into our supply chain management strategy as part of our supplier selection and retention process.

All suppliers are qualified in accordance with our requisition and purchasing policies, and are screened based on ESG criteria including business conduct, human rights, health and safety, as well as environmental management. All Group companies are required to include the SCOC, which is available in multiple languages, as part of their supplier selection procedure. The SCOC is available on Keppel Corporation's website.

All new suppliers that provide Keppel with products and services valued at \$200,000 or more per contract or over cumulative purchase orders in the prior calendar year are required to sign and abide by the SCOC.

In 2022, 99.83% of qualified suppliers endorsed the SCOC or have their own code of conduct which met Keppel's requirements. The remaining 0.17% comprised four suppliers who could not endorse the SCOC due to their respective company policies. The relevant business unit's Compliance Team conducted further due diligence and assessed that these four suppliers have met Keppel's requirements and were fit to be appointed.

#### Significant Suppliers Risk Identification

Significant suppliers are determined by factors including cumulative order value and volume, single order value and volume, as well as business criteria such as component criticality and substitutability of products or services. Identifying and auditing significant suppliers enable us to better focus our efforts on improving ESG practices and performance in our supply chain.

We have developed an audit framework since 2019 to identify and manage sustainability risks among our significant suppliers. Risks are assessed based on country-specific and sector-specific risk perspectives in areas including business ethics, human rights, health and safety, as well as the country's environmental regulatory framework.

In addition, the Group has in place an enterprise resource system which provides procurement managers across the Group with visibility on suppliers that have been qualified by other business units, as well as those which have been terminated. Purchasing

practices towards suppliers are continuously reviewed to ensure alignment with the SCOC and to avoid potential conflicts with ESG requirements.

#### Adherence to Business Ethics

Keppel's suppliers are required to conduct their business operations in an ethical and responsible manner with respect to legal compliance, anti-corruption, fair competition, confidentiality of information, accurate record keeping and management of conflict of interests.

Third-party associates that provide services or engage in business activities on behalf of a Group company are also required to abide by Keppel's rules of business conduct. The rules specify the Group's policy regarding ethical conduct and compliance with laws, anti-corruption, gifts and hospitality, and donations and contributions.

#### Upholding Human Rights

Suppliers are expected to respect and uphold fundamental human rights in their operations, based on the International Labour Organisation's (ILO) Declaration on Fundamental Principles and Rights at Work as well as the United Nations (UN) Universal Declaration of Human Rights and UN Guiding Principles on Business and Human Rights.

#### Effective HSE Management Systems

Suppliers must comply with the business units' industry-specific health, safety and environmental (HSE) requirements, and have effective HSE management systems in place to identify, manage and reduce risks and impacts.

In assessing the sustainability risks of potential suppliers, we review suppliers' industry reputation, track record, financial performance, security practices and certifications, with a preference for suppliers with certifications for ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and OHSAS 18001 Occupational Health and Safety assessment series or ISO 45001 Occupational Health and Safety Management System or the equivalent.

#### Due Diligence, Risk Assessment and Mitigation

GRI 308-2 | 403-7

The assessment of supplier risks and due diligence measures undertaken by the Group is an ongoing process which takes place throughout the lifecycle of the buyer-supplier relationship. This includes desk assessment, on-site internal audits

as well as external audits as part of the ISO 14001 assessment framework.

Suppliers of Keppel Infrastructure are required to furnish their risk assessment in relation to HSE risks, as well as establish and implement appropriate measures to mitigate and/or prevent significant impacts.

Keppel Infrastructure requires suppliers of hazardous substances or flammable materials to have appropriate emergency response plans. It ensures that suppliers have the relevant certifications and licenses as required under the laws in the respective countries of operation before they are appointed. For example, Singapore-registered suppliers of goods and services are required to have a minimum of Level 2 and Level 3 bizSAFE<sup>1</sup> certifications respectively.

Keppel Infrastructure conducts annual supplier performance evaluation as part of its supplier due diligence process. The procurement team works closely with the supplier to implement a preventive and corrective action plan where improvements are deemed necessary.

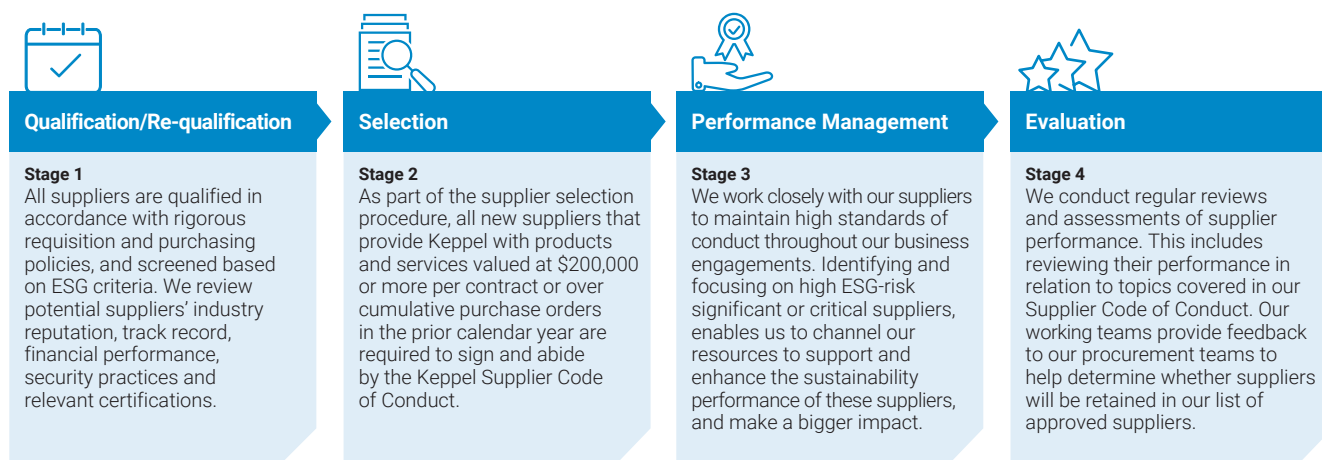
Keppel O&M conducts regular internal audits of resident subcontractors to ensure their adherence to the ILO Declaration on Fundamental Principles and Rights at Work and Singapore's Ministry of Manpower marine sponsorship scheme requirements for the employment of local and foreign employees.

The scope of these audits includes fair remuneration, living standards, workplace safety, as well as abuse and harassment. Monthly interviews are done directly with subcontract workers on a rotational basis to determine their levels of satisfaction in these areas. The respective management of the subcontractor companies are then required to address any areas of concern, under a structured mechanism of monitoring and close out.

Keppel Land has in place a five-step supply chain management process that covers the whole lifecycle of its projects from the initiation and design development stages to subsequent construction and operation stages. For all project sites covered under the scope of Keppel Land's environmental management system, contractors are required to conduct impact assessment based on activities at the project site prior to construction. The assessment covers potential negative environmental impacts, including depletion of resources, biodiversity disturbance as well as air, water and noise pollution. Contractors are required to establish and implement appropriate

<sup>1</sup> bizSAFE is a nationally recognised capability building programme designed to help companies in Singapore build workplace safety and health capabilities.

## Supplier Selection and Assessment Process



measures to mitigate and/or prevent significant environmental impacts.

Keppel Land also conducts annual site visits and internal audits as part of its supplier due diligence process. All site audits, which focus mainly on HSE compliance, are conducted in the respective countries. When lapses are identified, the project team works closely with contractors to implement corrective action plans and preventive measures.

In 2022, the Group conducted on-site HSE assessments at Keppel Marina East Desalination Plant, The Reef at King's Dock and M1's offshore telecoms facility. Findings were categorised according to high, medium and low risk levels, with expected timelines to rectify the findings immediately, within one month and within three months respectively. Corrective actions and improvement plans taken at these sites included immediate servicing and replacement of faulty equipment parts; improvement of chemical loading areas with better floor/hump marking to prevent slips, trips and falls; and proper housekeeping such as prompt removal of concrete debris from the working platform.

### Ensuring Well-being of Migrant Workers

In 2022, Keppel O&M's entities in Singapore were audited and certified to be in conformance with the Dhaka Principles for Migration with Dignity<sup>2</sup> for the responsible recruitment and employment of migrant workers.

Keppel Infrastructure has regular interactions with the migrant workers hired by its contractors, and looks out for their well-being at the respective worksites.

To ensure that its operations and suppliers are not involved in unethical labour practices such as child or forced labour, Keppel Land has incorporated a human rights clause on the prohibition of child labour in all of its health and safety specifications to contractors since 2012. Minimum requirements on living conditions of on-site workers' quarters are also specified in contract documents.

Keppel Land conducts monthly safety walkabouts at its Singapore worksites to ensure that its contractors remain vigilant, comply with its safety specifications, and take care of the well-being of their workers. Similar walkabouts and inspections are conducted at overseas worksites at least once every quarter. In 2022, safety walkabouts were conducted at over 30 project sites and completed buildings in Singapore and overseas. In China, Keppel Land sets up joint supervision accounts with the contractors for its projects to ensure timely payment of workers' salaries.

The Group is working to further improve our supplier due diligence processes, such as leveraging existing control processes to conduct internal or second-party ESG audits on suppliers, and using third-party ESG rating agencies to assess, monitor and manage suppliers' sustainability performance.

### Supplier Development and Capacity Building

In 2022, as part of our efforts to build capacity and enhance sustainability performance within our supply chain, Keppel collaborated with Global Compact Network Singapore to commence a series of carbon

management workshops for the Group's suppliers from Small and Medium Enterprises (SMEs). Topics covered include carbon measurement and decarbonisation strategies, including the use of digital tools for carbon footprint management. The workshops are fully funded by Keppel and are targeted at senior personnel from Keppel's SME suppliers who have decision-making authority on sustainability matters in their respective organisations.

Forums and dialogue sessions with suppliers and contractors are held regularly to brief them on Keppel's ESG policies, processes and requirements to ensure alignment between Keppel's SCOC and the respective codes of conduct of our suppliers and contractors, share experiences, and communicate our expectations regarding suppliers' performance. Our business units have incentive programmes that reward and recognise contractors with exemplary HSE performance. Multiple communication channels including face-to-face briefings at worksites, virtual meetings and regular email broadcasts are also used to proactively reach out to our suppliers and contractors.

At the same time, internal stakeholders including the Group's procurement staff, are kept updated on their roles in the supplier ESG programme during the Group Supply Chain Committee meetings as well as through regular internal communications.

In 2022, Keppel achieved a score of A- for CDP's Supplier Engagement Rating. CDP is a non-profit organisation that runs a global disclosure system which helps companies and cities manage their environmental impacts.

<sup>2</sup> The Dhaka Principles are a set of human rights-based principles to enhance respect for the rights of migrant workers from the moment of recruitment, during overseas employment, and through to safe return to home countries. The principles include no charging of recruitment or placement fees to migrant workers; the provision of clear and transparent worker contracts as well as safe and decent working and living conditions; payment of wages regularly, directly and on time; respect for the right to worker representation, among others.

# Human Capital Management

We are committed to fair employment practices, upholding human rights principles and investing in people development.

## Performance Overview

GRI 3-3



### 2022 Targets

- Conduct engagement surveys to track and enhance employee engagement.
- Promote diversity and equal opportunity in the workplace.
- Achieve an average of at least 20 hours of learning per employee globally.



### 2022 Performance

- Achieved overall engagement score of 84% in Global Employee Engagement Survey, higher than Mercer's global average of 80%.
- 88% of our staff are proud to work for Keppel.
- Females represent about 31% of senior management and managerial positions in the Group.
- Average salary, including cash incentives, of female employees was 98% that of male employees.
- All business units in Singapore have signed the Tripartite Alliance for Fair and Progressive Employment Practices (TAFEP) Employers' Pledge of Fair Employment Practices.
- Achieved more than 24 hours of learning per employee globally.



### 2023 Targets

- Conduct engagement surveys to track and enhance employee engagement.
- Promote diversity, equity and inclusion in the workplace.
- Achieve an average of at least 20 hours of learning per employee globally.



### Longer Term Targets

- Build an agile and collaborative workforce, with experience across divisions and geographies, to propel the Company towards its Vision 2030 goals.
- Strengthen people capabilities through driving a proactive learning culture and growing digital readiness.





Keppel places strong emphasis on attracting and developing a talent pool to ensure that we have the necessary skillsets to enable Keppel's next phase of growth.

### Overview

People are our most valuable asset and are fundamental to Keppel's performance. The Group is committed to building an organisation where employees are engaged and motivated to give their best. We place strong emphasis on attracting and developing a deep talent pool to ensure that we have the necessary skillsets to enable Keppel's next phase of growth.

### Report Boundary

The data reported in this section takes into account significant subsidiaries and associated companies in which the Group has a stake of 51% or more. Our total workforce across around 20 countries was 19,163 as at end-2022. This comprises full-time and part-time permanent employees, and excludes the workforce of our contractors.

### Management Approach

GRI 3-3

Keppel is committed to building an agile and collaborative workforce, with experience across divisions and geographies, to propel the Company towards its Vision 2030 goals.

We respect and uphold the fundamental principles of human rights, and are committed to diversity, including gender diversity. We also strive to strengthen our people capabilities through driving a proactive learning culture, growing digital readiness and promoting the holistic well-being of our employees, including mental health, through various programmes.

### Fair Employment

We adopt fair employment practices and comply with local labour regulations across our global operations, including minimum wage laws, where such laws apply.

We are a Human Capital Partner of the Human Capital Partnership Programme, a tripartite initiative that brings together exemplary employers in Singapore who have progressive employment practices and are firmly committed to developing their human capital. We endorse Singapore's Tripartite Guidelines on Fair Employment Practices and are a signatory of the Employers' Pledge of Fair Employment Practices. We are also a signatory of the Singapore Business Federation's Sustainable Employment Pledge.

Globally, about 7,600 people were hired in 2022, of which 88% were males and 12% females. There was a higher number of males hired as the offshore and marine industry, which accounted for the majority of new hires, traditionally attracted more males. Excluding Keppel O&M<sup>1</sup>, 59% of the new hires were males and 41% females.

We believe that hiring from local communities enhances our ability to understand local needs and strengthens our capabilities on the ground. We also develop talents locally to assume management positions. Across our business units, 80% of our senior management and 77% of our employees are citizens or permanent residents of the countries in which they work.

We promote internal mobility, where employees are encouraged to take charge of their careers and seek internal opportunities to develop their skills and career tracks. In 2022, 19% of the open positions were filled by internal candidates.

To help employees manage the transitions that may arise from organisational changes, we provide employees with career transition support. For example, human resource teams organise one-on-one meetings with staff to understand their career aspirations before re-deploying them to suitable roles. Transitional assistance such as career coaching, training programmes and training funds are also provided to employees to upskill and reskill them.

Keppel also supports re-employment beyond the statutory retirement age. Eligible employees are offered post-retirement employment opportunities, in line with the Singapore Tripartite Guidelines on the Re-employment of Older Employees. As at end-2022, there were a total of 135 re-employed staff in the Group, of whom 29 were re-employed in 2022.

In recognition of our talent acquisition efforts, Keppel was awarded the Gold Standard for Talent Acquisition and Silver Standard for Employee Well-being under the HR Practice Awards category at the 15th Singapore HR Awards organised by the Singapore Human Resources Institute.

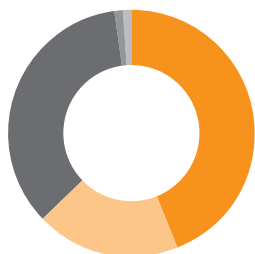
<sup>1</sup> Keppel Offshore & Marine has been divested with effect from 28 February 2023.

# Human Capital Management

## Our Global Workforce

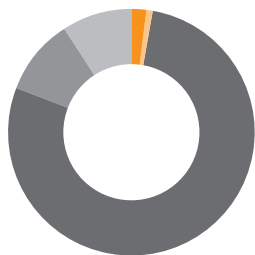
GRI 2-7 | 405-1

### Distribution by Region



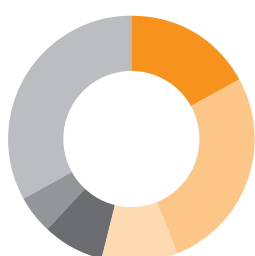
	No. of Employees	%	Employees (%)		Senior Management <sup>b</sup> (%)	
			Local Hires <sup>a</sup>	Foreigners	Local Hires <sup>a</sup>	Foreigners
● Singapore	8,430	44	50	50	78	22
● Australia & Asia (excluding Singapore)	3,652	19	100	0	99	1
● Americas	6,753	35	99	1	91	9
● Middle East	206	1	0	100	1	99
● Europe	122	1	88	12	88	12
<b>Total</b>	<b>19,163</b>	<b>100</b>	<b>77</b>	<b>23</b>	<b>80</b>	<b>20</b>

### Distribution by Segment



	No. of Employees	%	Employment Type (%)	
			Permanent	Contract
● Corporate Office <sup>c</sup>	461	2	93	7
● Asset Management	269	1	90	10
● Energy & Environment	14,850	78	88	12
● Urban Development	1,914	10	94	6
● Connectivity	1,669	9	98	2
<b>Total</b>	<b>19,163</b>	<b>100</b>	<b>89</b>	<b>11</b>

### Distribution by Nationality



	No. of Employees	%	Share of Senior Management, Managerial and Executive Positions <sup>b</sup> (%)
● Singapore	3,258	17	81
● Brazil	5,174	27	5
● India	1,916	10	32
● China	1,533	8	50
● America	958	5	13
● Others	6,324	33	48
<b>Total</b>	<b>19,163</b>	<b>100</b>	

## Return to Work Rate

GRI 401-3

### Of Employees Post Maternity/Paternity Leave<sup>d</sup>

	No. of Employees		Employees (%)	
	Singapore	Global	Singapore	Global
<b>Total</b>	<b>204</b>	<b>394</b>	<b>99.5</b>	<b>97.5</b>
Female	56	101	98.2	90.1
Male	148	293	100	100

<sup>a</sup> Local hires are defined as citizens or permanent residents of the country in which they work.

<sup>b</sup> Senior management is defined as individuals at the top management level. They generally head departments or entities and may have Profit and Loss responsibilities. Managerial refers to individuals at the middle management level, one tier below senior management, while executives include employees below the managerial level excluding non-executives and industrial/general staff.

<sup>c</sup> Corporate Office in this section is defined as Keppel Corporation Ltd and its corporate subsidiaries which comprises Keppel Business Solutions, Keppel Technology & Innovation, Keppel Corporation Beijing Representative Office and Keppel Philippines Holdings.

<sup>d</sup> Figures on maternity and paternity leave comprise data from the following countries where data is available: Singapore, Brazil, China, the Philippines, the United States and Vietnam.

Keppel was conferred several awards that recognised our commitment to building a great workplace. Keppel Corporation was ranked as one of the World's Best Employers 2022 by Forbes and received the SkillsFuture Employer Award (Gold) which honours exemplary organisations that champion employees' skills development and build a lifelong learning culture. In addition, Keppel garnered the Gold award for Excellence in Retention Strategy, while Keppel People Services received the Silver award for the Best HR Team at the Human Resources Excellence Awards 2022 organised by Human Resources Online. We were also named one of Singapore's Best Employers 2023 by The Straits Times, where the top 250 firms were shortlisted based on an independent study of the attractiveness of hundreds of Singapore-based organisations based on employee assessments.

In 2022, our voluntary turnover rate was 14.7%. The involuntary turnover rate was 5.3%, of which 1.6% was due to retirement.

### Compensation & Benefits

GRI 201-3 | 401-2 | 401-3 | 404-3

Keppel subscribes to a pay-for-performance philosophy. Opportunities for advancement, promotion, recognition, compensation, training and other conditions of employment are provided based on merit.

Performance reviews are conducted for permanent employees annually. Keppel uses the management by objectives process where pre-defined and measurable goals are set jointly by employees and their line managers at the start of the year, systematically followed upon throughout the year, and performance assessed against the goals at the end of the year. Comparative rankings in which employees' performance is reviewed against their peers in the same group are also conducted, where relevant. In addition, regular feedback and performance conversations are held on an ongoing basis between employees and their reporting managers, to complement performance reviews.

Our employees in Singapore and overseas are provided with a comprehensive range of benefits which include paid annual leave, medical benefits and group insurance plans. In Singapore, part-time employees are entitled to similar benefits on a pro-rated basis.

In line with the Singapore Government's pro-family legislation, eligible female employees are entitled to eight weeks of paid maternity leave. This may be extended by an additional eight weeks. Eligible male employees are entitled to two weeks of paid paternity leave.

Eligible working parents in Singapore are entitled to up to six days of paid childcare leave annually. Under our

## Employee Demographics

GRI 2-7 | 405-1

### By Gender (%)

	Male	Female
<b>Overall</b>	<b>82</b>	<b>18</b>
<b>By Region</b>		
Singapore	79	21
Australia & Asia (excluding Singapore)	66	34
Americas	94	6
Middle East	93	7
Europe	75	25
<b>By Segment</b>		
Corporate Office	42	58
Asset Management	40	60
Energy & Environment	91	9
Urban Development	47	53
Connectivity	58	42
<b>By Employment Type</b>		
Permanent	81	19
Contract	88	12
Full-time	82	18
Part-time	42	58
<b>By Management Level</b>		
Senior Management	78	22
Managerial	68	32
Executive	68	32
Non-Executive	62	38
Industrial/General	99	1
<b>By Function</b>		
Revenue-generating <sup>a</sup>	70	30
STEM-related <sup>b</sup>	80	20

### By Age Group (%)

	<30 years old	30 to 39 years old	40 to 49 years old	50 years old & above
<b>Overall</b>	<b>14</b>	<b>35</b>	<b>33</b>	<b>18</b>
<b>By Segment</b>				
Corporate Office	11	34	34	21
Asset Management	14	48	26	12
Energy & Environment	14	35	33	18
Urban Development	14	39	33	14
Connectivity	14	34	34	18

### By Educational Qualification (%)

	Post-graduate	Bachelor's Degree	Post Secondary/Pre-U/Vocational	Secondary	Primary & below
<b>Overall</b>	<b>4</b>	<b>22</b>	<b>26</b>	<b>28</b>	<b>20</b>
<b>By Segment</b>					
Corporate Office	18	56	24	0	2
Asset Management	21	68	11	0	0
Energy & Environment	2	16	26	34	22
Urban Development	9	35	21	10	25
Connectivity	9	49	29	12	1

<sup>a</sup> Includes business development, commercial, engineering, fund management, project development, sales and trading.

<sup>b</sup> Science, Technology, Engineering and Mathematics-related.

## Human Capital Management

### New Hires

GRI 2-7 | 401-1 | 405-1

#### By Region

	No. of Employees	%
<b>Total</b>	<b>7,600</b>	<b>100.0</b>
Singapore	1,723	22.7
Australia & Asia (excluding Singapore)	690	9.1
Americas	5,159	67.9
Middle East	12	0.1
Europe	16	0.2

#### By Gender & Age Group

	Gender (%)		Age Group (%)			
	Male	Female	<30 years old	30 to 39 years old	40 to 49 years old	50 years old & above
<b>Overall</b>	<b>88</b>	<b>12</b>	<b>24</b>	<b>34</b>	<b>30</b>	<b>12</b>
Corporate Office	45	55	26	45	22	7
Asset Management	38	62	23	41	30	6
Energy & Environment	93	7	23	33	32	12
Urban Development	46	54	38	42	17	3
Connectivity	63	37	33	40	21	6

#### By Management Level

	%
<b>Total</b>	<b>100.0</b>
Senior Management	0.2
Managerial	3.3
Executive	14.5
Non-Executive	12.5
Industrial/General	69.5

#### By Nationality

	%
<b>Total</b>	<b>100</b>
Singapore	7
Brazil	53
America	11
India	7
China	4
Others	18

Flexible Benefits Programme, employees can claim for child-related expenses such as maternity, paediatric and preschool or childcare expenses. Employees with newborns also qualify for a top-up to their Flexible Benefits spending account. Lactation facilities are available in the workplace for nursing employees.

We also provide flexible working hours, work-from-home and part-time working arrangements, subject to mutual agreement with the Heads of Departments, for employees who need to manage work and personal commitments.

Keppel Group adheres to the respective social security contribution or pension plan obligations of the countries in which we operate. In Singapore, the Central Provident Fund (CPF) is a comprehensive social security savings plan that enables salaried Singapore citizens and permanent residents to set aside funds to work towards a secure retirement. Under the CPF scheme, Keppel and its employees make monthly contributions to the employees' CPF accounts in accordance with the prevailing regulations. In China, Keppel's entities and employees make monthly contributions to the social security system which comprises five types of insurance, namely pension, medical, unemployment, maternity and injury, and a mandatory housing fund. Contribution rates and caps for each benefit vary according to local jurisdictions. In the Philippines, Keppel and its employees make monthly contributions to the state-run Social Security System.

### Human Rights

#### Human Rights Commitment

We respect and uphold the fundamental principles set out in the United Nations (UN) Universal Declaration of Human Rights and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work. Our approach to human rights is guided by the UN Guiding Principles on Business and Human Rights. Keppel Corporation is a participant of the UN Global Compact and is committed to the Compact's 10 universal principles, which include principles on human rights and labour practices.

Our commitment to human rights is supported by the Keppel Group Code of Conduct, which sets the tone in relation to the Group's stance against discrimination on any basis. Our stance on human rights is articulated in the Keppel Group Human Rights Policy. Both of these documents are publicly available on our website.

We have zero tolerance for unethical labour practices such as child labour, forced labour, slavery and human trafficking in all of our

operations. We oppose discrimination on any basis, inclusive of any bias due to ethnicity, gender, religious beliefs, nationality, age or any physical disability.

The Group also supports the elimination of any exploitive labour practices through its policies, planning and administration of employment practices. Opportunities for recruitment, placement, training compensation, advancement and other conditions of employment are provided purely based on merit.

We provide training for all employees on non-discrimination and anti-harassment in the workplace as part of the annual training and declaration of Group policies including the Keppel Group Code of Conduct.

Our suppliers are also required to abide by the Keppel Supplier Code of Conduct, which holds them accountable for responsible labour practices in their operations, including prohibiting the use of forced labour and child labour, respecting employees' freedom of association, as well as providing fair compensation and equal opportunity.

#### Human Rights Due Diligence, Risk Assessment and Risk Mitigation GRI 2-16

Keppel's Whistle-Blower Policy encourages the reporting of suspected reportable conduct by establishing clearly defined and centralised processes through which such reports may be made with confidence that employees and other persons making such reports will be treated fairly and, to the extent possible, protected from reprisal.

The whistle-blower reporting channel, which is available publicly on our website as well as on our Global Intranet, is widely communicated and made accessible to all stakeholders. Any issues raised through the whistle-blower channel, including human rights, discrimination and harassment issues, are thoroughly investigated. Details of our whistle-blower reporting mechanism and investigation process can be found on page 112 of our Annual Report 2022.

In 2022, there were 23 reported incidents relating to workplace behaviour, including four related to harassment, made via the whistle-blower channel globally. These were referred to the respective business units for review and investigation. Appropriate remedial actions were taken for all confirmed grievances and complaints. Two of the cases were substantiated, and the employees were sent for counselling and coaching. Another five cases could not be substantiated, and investigations are ongoing for the 16 remaining cases.

#### Turnover GRI 2-7 | 401-1

##### By Total Turnover & Turnover Rate

	2019	2020	2021	2022
Employee Turnover	2,300	1,923	2,856	<b>2,820</b>
Voluntary Turnover Rate <sup>a</sup> (%)	10.9	10.9	17.8	<b>14.7</b>
Involuntary Turnover Rate (%)	–	–	10.8	<b>5.3</b>
Total Turnover Rate (%)	–	–	28.6	<b>20.0</b>

	Voluntary Turnover Rate <sup>a</sup> (%)	Total Turnover Rate (%)
<b>Total</b>	<b>14.7</b>	<b>20.0</b>
<b>By Region</b>		
Singapore	6.9	8.5
Australia & Asia (excluding Singapore)	2.7	4.0
Americas	4.9	7.4
Middle East	0.1	0.1
Europe	0.1	0.0
<b>By Gender</b>		
Male	11.7	16.1
Female	3.0	3.9
<b>By Age Group</b>		
<30 years old	5.0	6.3
30 to 39 years old	6.0	7.6
40 to 49 years old	2.5	3.9
50 years old & above	1.2	2.2
<b>By Management Level</b>		
Senior Management	0.1	0.1
Managerial	1.1	1.3
Executive	4.5	5.5
Non-Executive	2.5	3.2
Industrial/General	6.6	9.9
<b>By Nationality</b>		
Singapore	3.2	3.6
America	2.9	3.2
China	0.9	1.6
India	1.3	1.8
Brazil	0.7	2.7
Others	5.7	7.1

<sup>a</sup> The voluntary turnover rate is defined as the percentage of employees who leave the organisation voluntarily. It does not take into account turnover due to completion of contracts, dismissal, retirement or death in service.

## Human Capital Management

### Female Representation

**31%**

Of senior management and managerial positions in the Group are occupied by females.

### Employee Engagement Score

**84%**

Achieved in the 2022 Global Employee Engagement Survey, 4% higher than Mercer's global average.

As part of the due diligence process to proactively identify potential human rights issues including discrimination and harassment risks, channels such as regular conversations or feedback sessions between employees and their reporting managers, and annual performance review sessions, are in place to allow employees to raise their concerns.

The reporting of any discrimination and harassment incident goes through a defined escalation process. We have an Investigation Procedure Manual which sets out the investigation protocols including the methodology for initiating and conducting investigations into suspected misconduct<sup>1</sup>. The Group Internal Audit investigation team conducts independent investigations, in consultation with the Investigation Advisory Committee, with oversight from the Group's Audit Committee. Appropriate disciplinary action, including counselling, training, suspension or termination of employment, will be taken in the event that an employee is found to have violated the rules set out in the Code of Conduct.

As part of our risk-based internal audit process, business units such as Keppel Land regularly monitors migrant workers' well-being including conducting monthly inspection of their dormitories to ensure that good living conditions are provided. Keppel Infrastructure has regular interactions with the migrant workers hired by its contractors and looks out for their well-being at the respective worksites.

In 2022, Keppel O&M's entities in Singapore were audited and certified to be in conformance with the Dhaka Principles for Migration with Dignity<sup>2</sup> for the responsible recruitment and employment of migrant workers. Keppel O&M regularly reviews that the hiring and management of migrant labour is in compliance with the Dhaka Principles, including conducting periodic interviews with foreign workers employed by resident contractors to detect unfair employment practices such as delays in salary payments. A helpline is also available for workers to report any grievances.

To continuously enhance our human resources practices, including those related to human rights, we participate in the certification programme organised by the Top Employers Institute, a global authority on people practices.

This serves to audit and benchmark Keppel's labour practices against international best practices, including gender pay equality, availability of confidential reporting channels and adequate follow-up processes to report ethical violations, discrimination, bullying, harassment and training to support leaders in identifying issues related to micro-aggression, harassment and discrimination. In 2022, Keppel was re-certified as a Top Employer in Singapore for the third year running.

### Collective Bargaining

GRI 2-30

Unions are our partners and we place great emphasis on maintaining harmonious and collaborative relationships with them. Of our global workforce that are eligible for union representation, approximately 97.7% are union members who are covered by collective agreements. This is approximately 33.8% of our global workforce.

Subjects covered in collective bargaining agreements include health and safety, remuneration, benefits, working hours, training, career development, work-time flexibility, employability and life-long learning, stress management as well as equal opportunities.

We ensure appropriate employee representation in collective bargaining, including working closely with the unions to explain changes to collective agreements, get buy-in and clarify any concerns that employees may have.

For employees who are not covered by collective agreements, Keppel determines their working conditions and terms of employment based on collective agreements that cover its other employees, or on employment legislations.

Recognising that unions serve as effective channels for raising grievances including those related to equal remuneration, discrimination and harassment, we work closely with unions to identify and address grievances cases. Guidelines are in place for the appropriate management of grievance cases. For unionised companies, employee grievances are resolved according to the grievance handling protocol spelt out in the respective agreements.

All registered grievances are investigated and tracked through to final closure. In the

<sup>1</sup> Includes bribery, corruption, fraud and misconduct such as dishonest or criminal acts, breach of laws and regulations, unethical conduct including discrimination and harassment, reprisal against a whistle-blower, or any other conduct which may cause financial or non-financial loss to Keppel or damage to Keppel's reputation.

<sup>2</sup> The Dhaka Principles are a set of human rights-based principles to enhance respect for the rights of migrant workers from the moment of recruitment, during overseas employment, and through to safe return to their home countries. The principles include no charging of recruitment or placement fees to migrant workers; the provision of clear and transparent worker contracts as well as safe and decent working and living conditions; payment of wages regularly, directly and on time; respect for the right to worker representation, among others.

event of a grievance, our management and the union will undertake every reasonable effort to resolve the grievance promptly.

### Diversity, Equity and Inclusion

GRI 405-1 | 405-2 | 406-1

We value and respect all employees regardless of ethnicity, gender, religious beliefs, nationality, age or any physical disability. Our stance on diversity and inclusion is articulated in our Corporate Statement on Diversity and Inclusion, which is publicly available on the Company's website.

Our hiring policies ensure equal employment opportunities for all. Our employment statistics, which are reviewed regularly, illustrate the diversity of our workforce. As at 31 December 2022, 18% of our employees are female. We recognise that certain sectors such as the offshore & marine business, tend to attract larger proportions of male employees due to the nature of the jobs. Excluding employees of Keppel O&M, 42% of our employees are females.

At our corporate office and in certain parts of our businesses, female employees account for more than half of our workforce. 58% of the staff in Keppel Corporation's Corporate Office, 53% in Urban Development and 60% in Asset Management are females. Females represent about 31% of our senior management and managerial positions in the Group.

Across our global operations, female employees are fairly compensated based on merit, skills and relevant experience for comparable roles. In 2022, the average salary, including cash incentives, of female employees was 98% that of male employees. For senior management, the average salary, including cash incentives, of female employees was 118% that of male employees.

We have various initiatives to promote diversity, equity and inclusion in the workplace. To promote fair employment practices and create awareness of hiring-related unconscious biases, guidance on such topics is sent to employees regularly. Workshops on unconscious bias, developing inclusive leaders and behaviours were also conducted. For example, Keppel Data Centres conducted three runs of a programme on inclusive behaviours for employees in 2022.

### Gender Pay

GRI 405-2

#### By Employee Category (%)

	Average Female to Male Base Salary (%)	Average Female to Male Base Salary + Cash Incentives (%)
<b>Overall</b>	<b>95</b>	<b>98</b>
Senior Management <sup>a</sup>	107	118
Management level	101	106
Non-management level	97	102

### Training & Talent Development

GRI 404-1

#### Training Hours per Employee (hrs)

	2020	2021	2022
Global	19.0	19.9	<b>24.2</b>
Singapore	18.2	17.9	<b>21.7</b>

#### Average Training Hours per Employee (hrs)

	Hours
<b>By Gender</b>	
Male	24
Female	23
<b>By Age Group</b>	
<30 years old	29
30 to 39 years old	25
40 to 49 years old	24
50 years old & above	20
<b>By Management Level<sup>b</sup></b>	
Senior Management	32
Managerial	28
Executive	23
Non-Executive	22
Industrial/General	25
<b>By Nationality</b>	
Singapore	28
Asia (excluding Singapore), Middle East & Europe	18
Americas	31

<sup>a</sup> Senior management is defined as individuals at the top management level. They generally head departments or entities and may have Profit and Loss responsibilities.

<sup>b</sup> Senior management is defined as individuals at the top management level. They generally head departments or entities and may have Profit & Loss responsibilities. Managerial refers to individuals at the middle management level, one tier below senior management while executives, non-executives and industrial/general include employees below the managerial level.

# Human Capital Management

## Training & Talent Development

GRI 404-1 | 404-2

We empower employees through learning and development programmes and encourage them to reach their full potential. The overall global average number of training hours<sup>1</sup> per employee was 24.2 hours.

The global average amount invested per full-time employee on training and development was about \$300. Digital learning was stepped up with more e-learning platforms adopted, empowering employees to take charge of their learning.

### Talent Mapping

As part of the Group’s strategic workforce planning, we completed our Talent Mapping exercise in 2022. The aim was to assess our current capabilities and identify future skillsets needed to drive and execute Vision 2030, our long-term strategy to guide the Group’s growth and transformation.

Using people analytics, the exercise provided business units the opportunity to take stock of the skills, experience and mindsets needed,

identify talent gaps and put in place actions to address the gaps. Staff development, redeployment and recruitment decisions were made using insights gathered from the exercise. Moving forward, talent mapping will be an ongoing and iterative process to support the Company’s future human capital needs.

### Learning Platforms

The four key goals of Keppel’s learning strategy are to increase Keppel’s learning outreach globally, increase digital readiness, ensure that Keppelites are Vision 2030-ready, and build a high performing team culture.

The Keppel Learning Academy platform comprises four Centres of Learning to cater to employees’ learning needs at different stages of their careers. These are:

- **Keppel 101:** Provides mandatory knowledge and skills to strengthen employees’ foundation in areas such as safety, compliance and risk management.
- **Keppel ACES:** Focuses on digital transformation and topics relating to Artificial Intelligence, Culture and Cloud, Emerging Technologies, as well as Science and Solutions.
- **Keppel Leadership Essentials:** Builds soft skills and leadership capabilities through programmes on leadership, Emotional Intelligence and general business skills.
- **Keppel Specialists:** Builds functional technical skills in areas such as human resource and financial competency to address business needs.

The programmes offered under the Academy are conducted in partnership with industry experts and higher learning institutes such as the National University of Singapore, the Nanyang Technological University and INSEAD.

In July 2022, Keppel held the annual Global Learning Festival, themed “Workforce of Tomorrow” with a series of webinars on learning agility, digital transformation and sustainability to help employees stay relevant and be ready for future challenges. More than 1,100 Keppelites from Singapore and overseas participated in the three-day event, clocking a total of 4,000 hours of learning.

Keppel’s business units also organised various learning activities. For example, Keppel Capital held a learning festival in August comprising talks on digitalisation and sustainability, hands-on programmes such as Python Programming, as well as industry-specific workshops. At Keppel

Land, employees underwent courses such as Developing a Growth Mindset and Customer Awareness.

M1’s wholly-owned subsidiary, AsiaPac, partnered the Singapore Institute of Management and the Institute of Technical Education on the Youth Academy Work-Study-Train and Work-Study diploma programmes respectively. Under the programmes, students are attached to AsiaPac to allow them to gain work experience while pursuing their studies.

### Career Development Programmes

To support Keppelites in their career growth, the Global Career Festival was held in May 2022. As part of Keppel’s philosophy for employees to upskill, upstream and uplift, the event sought to inculcate the mindset of career ownership among employees and equip them with the skills for personal growth and career progression. The three-day event included sharing sessions by senior management and industry experts, and was attended by more than 2,600 Keppelites.

We also have in place the Career Conductor Programme, which encourages Keppelites to take charge of their careers through conversations with management. Career conductors are employee volunteers with leadership experience, who are trained to guide Keppelites on their professional development.

In addition, Keppel’s Employee Development Scheme co-sponsors eligible permanent employees who aspire to upgrade themselves on programmes including professional certifications, post-graduate diplomas and master’s degrees.

### Leadership Programmes

We are committed to developing future leaders and managers by equipping them with skills and capabilities, and inspiring them to give their best and drive sustainable growth for our businesses. We offer a diverse range of leadership and development programmes that are regularly refreshed to suit the Group’s evolving needs.

Employees under the Keppel Young Leaders programme, which is the Group’s platform to nurture young talents, are given opportunities to lead high-impact projects with guidance from senior management across the Group.

The Keppel Associate Programme (KAP), a two-year management associate programme, offers high-potential fresh graduates with varied opportunities for leadership development through a series of job rotations and structured learning.

Keppel Learning Principles Guide the Implementation of Our Learning Solutions	
<b>K</b>	<b>Keep Learning Simple</b>
<b>E</b>	<b>Encourage a Culture of Learning</b>
<b>P</b>	<b>Personalise Solutions to Suit Business Needs</b>
<b>P</b>	<b>Prioritise Learning for Vision 2030</b>
<b>E</b>	<b>Equip with Future Ready Knowledge, Skills and Application</b>
<b>L</b>	<b>Learn Anytime and Anywhere</b>

<sup>1</sup> Training hours reported in this section exclude on-the-job training.





At the Global Keppelites Forum 2022, Keppel's senior management responded to questions posed by Keppelites.

High-performing management associates who exhibit the potential to take on leadership positions in the organisation will be invited to join the Keppel Young Leaders programme after graduating from the KAP.

The Advanced Leaders Programme is a five-day executive development programme designed in partnership with INSEAD and delivered by the school's resident faculty. Targeted at selected senior leaders, the programme aims to deepen their knowledge in areas which are pertinent in driving business performance and sharpen their interpersonal skills and leadership styles to be inspirational and influential leaders. To date, close to 100 senior leaders have undergone the programme.

The Emerging Leaders Programme is a five-day leadership development programme developed in collaboration with the Nanyang Technological University's Nanyang Business School. It aims to groom high-potential, early-career employees to take on senior level roles by cultivating their strategic leadership capabilities and skills, reinforcing their understanding of Keppel's business strategy, as well as honing their learning agility and ability to work with and influence others. To date, more than 80 emerging leaders have attended the programme.

The People Manager Programme is a three-month programme that focuses on equipping people managers with team management skills. The programme takes a blended learning approach that comprises self-paced online content and instructor-led modules. More than 150 people managers

have attended the People Managers Essentials component which covers leadership styles, team performance evaluation, and communication and feedback strategies.

Leadership development initiatives are also run at the business unit level. For example, Keppel Capital started an Executive Conversation Series with approximately 70 people managers across Singapore and its overseas offices. The series focuses on practical applications on topics such as building trust, empowerment and change.

In addition, the Group makes significant investment to equip employees with up-to-date operational skills and certifications. We support employees at all levels of the Company in furthering their education.

#### **Employee Engagement** **Employee Engagement Survey**

To better understand what motivates employees and support the Company's transformation efforts, we have been conducting engagement surveys at the Group level since 2009. In the Keppel Global Employee Engagement Survey 2022, we achieved a strong response rate of 97% from a sample size of 4,700 employees. The Group achieved an engagement score of 84%, higher than Mercer's global average of 80%.

Keppel's Global Employee Engagement Survey includes aspects related to job satisfaction, sense of purpose and happiness at work. 88% of our staff are proud to work for Keppel, 87% feel that their work is meaningful, and 84% feel welcomed and included in the work environment.

#### **Employee Engagement Initiatives**

Employees are updated on the Company's developments at regular staff dialogue sessions and through digital communication platforms. Staff engagement initiatives are also organised throughout the year to enhance interaction and communication between management and staff.

The seventh edition of the Global Keppelites Forum, a Group-wide town hall meeting, was held in February 2022. During the session, Keppel Corporation's CEO Mr Loh Chin Hua spoke on the challenges and opportunities created by the shifting global landscape as well as the Group's Vision 2030 roadmap. This was followed by a panel discussion in which senior management responded to queries by Keppelites from around the world.

#### **Employee Well-being**

To promote employee well-being and better workplace stress management, the Group has designated the months of June and October every year as the Physical Well-being Month and the Mental Well-being Month respectively. In 2022, sports and health initiatives held include a Global K'Steps Challenge to clock a target of 150 million walking steps as a Group. The response was highly positive and employees eventually clocked a total of 246 million steps. Yoga classes and health-related webinars were also held to encourage employees to lead healthy lifestyles.

Stress management talks and workshops were conducted to raise awareness about mental health issues. In addition, we have an Employee Assistance Programme<sup>2</sup> in place to provide mental health support and professional help to employees and their dependents.

<sup>2</sup> Under Keppel's Employee Assistance Programme, employees and their eligible dependents can seek professional help on stress-related issues in full confidentiality, from qualified and trained third-party counsellors, where applicable.

# Health and Safety

Safety is one of our core values. We are committed to providing safe and healthy workplaces, and ensuring high safety standards for our products and services.

## Performance Overview

GRI 3-3



### 2022 Targets

- Continue to execute our Zero Fatality Strategy and achieve zero workplace fatalities across our global operations.
- Continue efforts to promote occupational health and well-being of workforce.
- Roll out Safety 4.0 digital transformation programmes and Design for Safety (DfS) for overseas sites.
- Commence Group-wide Health, Safety and Environment (HSE) Assessment Programme with a widened scope to evaluate compliance to Group HSE requirements.



### 2022 Performance

- Suffered 3 fatalities in Singapore. Investigated incidents and put in place measures to prevent recurrence.
- Zero occurrence of Occupational Diseases at worksites.
- Applied DfS to all major developments in Singapore and overseas.
- Digital application for safety observations and reporting deployed.
- Group HSE assessment conducted at Keppel Marina East Desalination Plant, The Reef at King's Dock and M1 offshore telecoms facility.



### 2023 Targets

- Continue to execute our Zero Fatality Strategy and achieve zero workplace fatalities across our global operations.
- Continue to strengthen safety culture, including empowering workforce to speak up for safety.
- Conduct Global Safety Time Out to reinforce the safety message from top management.
- Continue deployment of safety digital transformation at all business units.
- Continue training to upgrade skills of line and HSE staff to conduct Root Cause Analysis.



### Longer Term Targets

- Maintain zero workplace fatalities across our global operations.
- Operate workplaces that are safe, productive and smart, leveraging Safety 4.0 technologies and digital innovation.

**Overview**

GRI 3-3

Safety is a core value at Keppel and an integral part of our business. We are committed to providing safe and healthy workplaces for all our stakeholders, and ensuring high safety standards for our products and services to safeguard customer health and safety.

We work with our contractors and subcontractors to make sure that they understand our requirements and expectations, and have processes and systems in place to detect, mitigate and report risks, as well as communicate best practices across the Group.

**Report Boundary**

GRI 3-3

The boundary for the material factor of health and safety includes the Group's major subsidiaries in Singapore and overseas in which the Group has operational control.

**Management Approach**

GRI 3-3

We focus on strengthening our frameworks and management systems as well as promoting a culture of HSE ownership across our operations.

Our approach to HSE management is guided by the Keppel Zero Fatality Strategy. Introduced in 2016, the strategy outlines actionable items to reduce workplace fatalities to zero through five strategic thrusts, namely building a high-performance safety culture, adopting a proactive approach to safety management, leveraging technology to mitigate safety risks, harmonising global safety practices and competency, and streamlining learning from incidents.

Initiatives which have been implemented in line with the Zero Fatality Strategy include:

- Establishment of a Group-wide global standard for managing High Impact Risk Activities (HIRA);
- Implementation of a standardised incident investigation and Root Cause Analysis technique;
- Setting of individual safety key performance indicators (KPIs) as well as including safety as an important KPI within the corporate scorecard;
- Cascading the Group's safety KPIs from top management to all frontline managers;
- Holding Global Safety Time-Out<sup>1</sup> sessions across all of Keppel's operations annually.
- Application of Design for Safety (DfS) guidelines to all major development in Singapore and overseas.



Our stance on HSE is articulated in our HSE Policy, which applies to all employees and third parties who work on our premises. We are committed to improving our HSE performance, and continuous efforts are taken to strengthen the safety culture across the Group through utilising technology, providing regular training, as well as reviewing and improving safety standards.

The Group HSE framework articulates our HSE vision and its alignment with our Company's core values, safety principles, as well as policies and objectives, in order to drive the HSE agenda across the Group and allow Keppel to achieve leading HSE performance across the industries we are in.

Keppel's operations are guided by five key safety principles:

1. Every incident is preventable;
2. HSE is an integral part of our business;
3. HSE is a line responsibility;
4. Everyone is empowered to stop any unsafe work; and
5. A strong safety culture is achieved through teamwork.

The effectiveness of our management approach is reviewed annually at the HSE Roundtable where senior management from

across the Group share insights and best practices, and exchange ideas to improve HSE performance. In 2022, Keppel's directors and senior management took stock of the Group's safety culture building journey and brainstormed ideas to strengthen the engagement and empowerment of staff at all levels to speak up in a no-blame environment. The action plan generated during the session is incorporated into the Group's HSE roadmap and strategies.

**Board & Management Oversight**

Keppel Corporation was the first publicly listed company in Singapore to establish a Board Safety Committee (BSC) in 2006. The Board Sustainability and Safety Committee (BSSC) was established in 2022 to provide greater focus on sustainability matters, with the role of the BSC subsumed under the terms of reference of the BSSC. The BSSC is chaired by Mr Teo Siong Seng, a non-executive and non-independent director of Keppel Corporation.

The BSSC adopts a hands-on approach in setting the strategic direction and establishing a HSE framework to ensure that consistently high HSE standards are maintained across our business units. Major incidents and HSE issues are shared and discussed at quarterly BSSC meetings to prevent recurrence.

<sup>1</sup> Since 2017, Keppel worksites around the world have been participating in the Global Safety Time-Out, an annual event and platform to reinforce the Group's commitment to safety, and remind employees and contractors to continue to strengthen the Company's safety culture and reinforce the importance of safety at the workplace through the sharing of safety messages and best practices.

# Health and Safety

The BSSC leads efforts to implement initiatives and improve performance with the support of the Keppel Group HSE Committee, which comprises representatives from all Keppel business units.

In 2022, Keppel Corporation's BSSC conducted safety visits at two worksites in Singapore as part of its efforts to engage the workforce. No overseas visits were conducted as COVID-19 travel restrictions were only progressively relaxed over the course of the year. However, the BSSC was regularly updated by the Keppel Group HSE Committee on developments at the Group's overseas operations.

HSE targets are embedded in the annual performance appraisal and remuneration of the management of Keppel Corporation and our business units via a balanced scorecard system.

### HSE Management Systems

GRI 403-1 | 403-8

The Group strives to achieve HSE certifications in line with global best practices.

We had successfully migrated to the ISO 45001 Occupational Health and Safety Management Systems from OHSAS 18001 in 2020. The ISO 45001 certification provides a robust set of processes for improving HSE standards in global supply chains. As at end-2022, 96% of our total workers are covered under the ISO 45001 Management Systems.

All employees and contractors at the worksites of the Group's companies where Keppel has operational control are covered by our HSE management systems. All employees and third-party suppliers and contractors are expected to abide by the Keppel Group HSE Policy, which places the highest priority on the health and safety of

people and the protection of assets and the environment.

Our HSE management systems are routinely audited by both independent certification agencies or companies as well as internal audit teams. For instance, Keppel Infrastructure's inspection for Safety Assurance for Everyone (iSAFE) and Keppel Offshore & Marine's (Keppel O&M) cross-business unit audits ensure that policies and management systems are adhered to, and that HSE standards across operations are aligned.

### Key HSE Initiatives in 2022

In 2022, we implemented several key initiatives to strengthen our HSE culture across the Group, including:

- Sharpening our strategic focus on empowering our workforce to be more engaged and to speak up on safety;
- Continuing the global transformation programme to digitalise and streamline our key HSE systems and processes;
- Leveraging technology such as data analytics and artificial intelligence to gather data and provide real-time insights of risk patterns;
- Rolling out Design for Safety (DfS) guidelines to major developments overseas;
- Continuing to execute our Zero Fatality Strategy to achieve zero workplace fatalities across our global operations; and
- Widening the scope of Group-wide HSE Assessment Programme to evaluate compliance to Group HSE requirements.

### Hazard Identification, Risk Assessment & Risk Management

GRI 403-2

Across the Group, we establish and implement procedures to identify, assess and mitigate HSE hazards in our operations.

Our operational and HSE teams conduct periodic workplace inspections and internal audits. Training is conducted to equip HSE personnel with the skills to effectively manage HSE risks. Union workers and subcontractor representatives are invited to participate in meetings where the identification of hazards, assessment of risks and the application of control measures are discussed. For business units whose workers do not belong to unions, worker representatives are nominated by the various departments to participate in monthly HSE committee meetings.

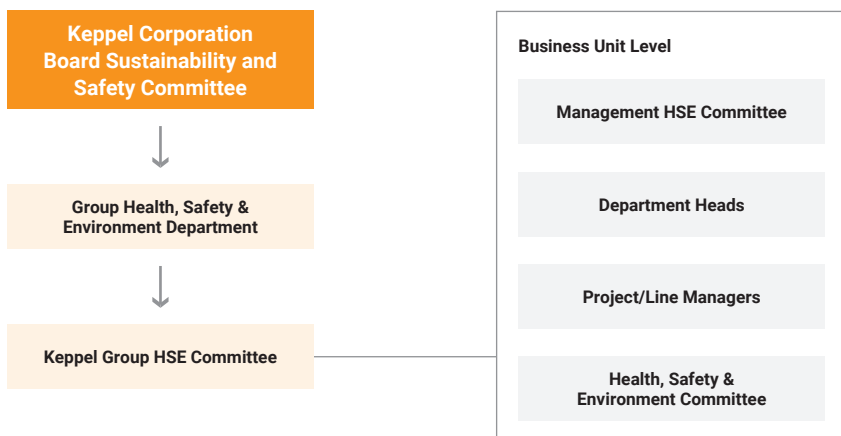
Findings from our risk assessments are factored into facility requirements, training programmes and operational controls. For instance, Keppel Infrastructure's HSE process management techniques incorporate the use of the Bow-tie<sup>1</sup> risk evaluation model as well as hazard and operability studies to identify and assess likely events that can result in critical failures.

Our safety processes have been evolving in tandem with the global transition to Industry 4.0. We are leveraging technology through the GOARC Artificial Intelligence (AI)-powered cloud-based platform to record HSE processes such as hazards reporting, HSE inspections and audits, as well as permit-to-work applications. Users can also access e-learning modules and keep track of their training progress. The integrated platform captures and utilises these data to provide in-depth predictive analyses to identify safety hazards and implement risk mitigation measures proactively.

M1 has collaborated with Keppel O&M and other partners on a smart wearables initiative to improve workforce safety and productivity. Samsung smart watches equipped with features such as heart rate monitoring and fall detection have been distributed to workers. If a wearer is in distress, an SOS signal can be triggered via the smart watch to seek immediate assistance. The smart watch can also provide the real-time position of the wearer for emergency response teams, should incidents occur.

At Marina at Keppel Bay, a suite of intelligent solutions powered by M1's 5G Standalone connectivity not only improves safety levels and security, but also automates and streamlines processes to boost productivity and efficiency through the fast and highly responsive enhanced network. For example, robots were deployed to enable onsite monitoring and remote assistance.

### Group HSE Structure



<sup>1</sup> The Bow-tie model is a risk evaluation method that is used for HSE hazard identification and to analyse and demonstrate causal relationships in high-risk scenarios.

Equipped with incident management solutions, the robots automate data logging, provide swift communication among stakeholders during incidents as well as offer 3D visualisation for risk management and planning.

To protect workers from potential health hazards, hearing conservation and respiratory protection programmes were implemented at sites with higher risk levels. To prevent noise-induced hearing loss, employees with exposure to noise are required to wear hearing protection gear and are screened at annual audiometric tests conducted by a mobile medical unit.

### Incident Reporting & Investigation

GRI 403-2

In accordance with the Group's HSE Policy, business units are required to report and investigate all accidents, incidents and near misses, and share lessons learnt to prevent any recurrence, including those that involve third parties such as contractors, clients and visitors at our premises, as well as employees working at third-party sites or commuting for work-related purposes.

At worksites, safety time-outs are conducted immediately after an incident occurs to heighten awareness among the work groups involved. Reportable incidents and high potential near misses are also promptly reported to senior management.

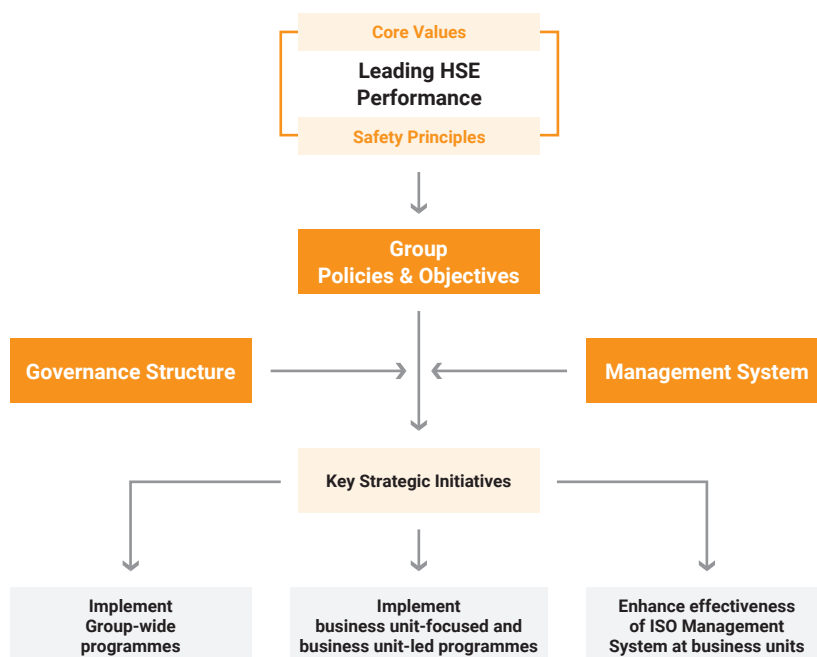
All work-related incidents are jointly investigated by the operational and HSE teams. Where appropriate, an independent team is set up to investigate fatal and high-potential incidents. All incident investigations include an account of the events leading up to the incident, how it occurred and post-incident actions, including a root cause analysis (RCA) based on the Keppel RCA methodology that has been developed in-house, and corrective action plans to prevent recurrence. By doing so, we are able to integrate actions to prepare for and respond to emergency situations.

All of the Group's operational entities also have procedures in place to monitor and investigate any occurrences of occupational disease at their sites based on their respective regions' regulatory requirements.

### Health & Safety Impact of Products & Services

Care is taken to ensure the responsible and safe design and management of our products. Appropriate health and safety assurance is carried out across the various stages of

### Group HSE Framework



the product life cycle, from design and development, through distribution and supply, to the product's ultimate end-of-life.

Design for Safety (DfS) is mandated for all major development works in Singapore under the Ministry of Manpower's WSH (Design for Safety) regulations. Keppel has extended the DfS to overseas projects in 2022. To facilitate this process, the Group has developed appropriate guidelines to work closely with all stakeholders such as architects, engineers and consultants to reduce design risks at their source as well as promote safer design solutions over the entire project lifecycle. As at end-2022, all major developments in Singapore and overseas have applied the DfS guidelines. The roll-out of DfS overseas is being done progressively, with the guidelines continuously refined for improvement.

Business units, as well as project and plant managers, are responsible for product and service safety. As customers' health and safety is a key priority, any negative feedback or complaints pertaining to our products or services as well as any penalties levied are taken seriously.

All operational management and quality control systems at Keppel O&M are aligned to its business excellence roadmap and framework. Clients are briefed on the management systems in place to address

project-specific HSE risks. Project teams conduct regular site audits to ensure compliance with clients' HSE standards. Keppel O&M's solutions can be certified to American Bureau of Shipping, DNV, Bureau Veritas and Russian Maritime Register of Shipping classifications, depending on the clients' needs.

The Group's infrastructure plants comply with the Singapore Standards' SS 593 Code of Practice for Pollution Control, while the water treatment plants comply with the Singapore Environmental Public Health (Water Suitable for Drinking) (No.2) Regulations 2019 and the World Health Organisation Guidelines for Drinking-water Quality standards.

Keppel Land has garnered a total of 92 Building and Construction Authority (BCA) Green Mark awards as at end-February 2023. It was ranked second in Asia in the Diversified (non-listed) category and retained the Green Star Status for exemplary ESG performance in the 2022 GRESB assessment. Keppel Land was also named one of the Top 10 Developers in Singapore at the BCI Asia Awards 2022. These accolades are testimony that its buildings are designed, operated and maintained in a manner that safeguards and promotes the health of its occupants, including its residents, tenants and customers.

## Health and Safety

Keppel's data centres in Singapore are certified to the Singapore Standards' SS 507 ICT for Information and Communications Technology disaster recovery services, the ISO 24762 ICT Disaster Recovery Management standards and the Monetary Authority of Singapore's Threat and Vulnerability Risk Assessment.

M1 has been working with partners to operate electronic waste (e-waste) collection bins at M1 shops across Singapore since 2017, as part of the then National Voluntary Partnership for E-Waste Recycling. Although the partnership has since made way for the National Environment Agency's regulated e-waste management system, M1 continues to offer this service. These e-waste collection bins collect SIM and memory cards for recycling, in addition to laptops, mobile phones, chargers, and cables. M1 is also certified to the ISO 22301 Business Continuity Management System, which is designed to help organisations prepare for, respond to, and recover from unexpected and disruptive incidents.

In 2022, M1 successfully obtained the re-certification of the Infocomm Media Development Authority (IMDA) Data Protection Trustmark for another three years. As at end-2022, M1 has rolled out 95% 5G coverage, with more than 1,000 5G base stations. These base stations comply with IMDA's radiation limit and meets the safety radiation guidelines set for the general public.

We conduct regular customer satisfaction surveys to understand customers' needs and enhance the quality and reliability of our products and services. For instance, Keppel Land conducted service quality surveys for all its completed residential projects in China in 2022, with about 95% of respondents indicating that they were satisfied with the services rendered in the management and operations of the developments. Keppel DHCS conducts annual customer satisfaction surveys for its customers in Singapore. M1 conducts Net Promoter Score surveys after each service or transaction, and holds in-store surveys with customers. It achieved a 3% year-on-year improvement in its NPS score in 2022.

### HSE Training

GRI 403-5

We empower and train our stakeholders to ensure that all personnel are updated on HSE measures and best practices, including migrant workers who are part of our workforce. In 2022, we invested more than \$27 million in enhancing HSE-related infrastructure, upgrading systems and building knowledge and skillsets across the Group.

All personnel entering any Keppel-operated site must attend a site-specific HSE induction course to be familiar with the key HSE requirements and potentially hazardous on-site activities or situations. In addition, all workers must undergo HIRA training which covers high-risk activities specific to each worksite.

Keppel Infrastructure has been awarded the In-house Approved Training Organisation status by SkillsFuture Singapore, while M1 has developed HSE e-learning modules and assessments for all staff.

At Keppel Land, Safety Awareness Centres (SAC) have been built in Ho Chi Minh City, Vietnam; Johor Bahru, Malaysia; Jakarta, Indonesia; Tianjin, China and Bangalore, India to provide mandatory training for contractors' employees and foster a safety culture across the supply chain for the duration of the project's construction. In Wuxi, China, Keppel Land's mobile SAC is deployed to Keppel's various projects in the city.

### Engaging Stakeholders

GRI 2-28 | 403-7 | 403-4

We work closely with all stakeholders, including our contractors, subcontractors, customers, suppliers, regulators and industry associations, to maintain high HSE standards in our workforce. Our subcontract workers undergo the same HSE training as direct employees.

To collectively raise industry standards and stay abreast of industry best practices, members of Keppel's management and selected HSE representatives are members of the Workplace Safety and Health (WSH) Council's WSH (Marine Industries) committee and the WSH (Construction and Landscape) committee; the National Work at Height Task Force; related industrial associations such as the Association of Singapore Marine Industries and Real Estate Developers Association of Singapore; as well as the Singapore Standards Council's General Engineering and Safety Standards.

As a bizSAFE partner under the WSH Council's bizSAFE programme, Keppel O&M's contractors are encouraged to progress through the five levels of the bizSAFE programme. Since 2018, Keppel O&M has imposed the requirement for its resident contractors to have a bizSAFE Level 4 (second-highest) certification before they can undertake work at its yards. Keppel Infrastructure also requires all its local suppliers of goods and services to have a minimum of Level 2 and Level 3 bizSAFE certifications respectively. Under the guidance of Keppel DHCS' operations and maintenance management team,

some contractors have attained the highest bizSAFE Star certification.

With their on-the-ground experience and detailed knowledge of hazards and risks, frontline supervisors and workers play crucial roles when it comes to HSE matters. Recognising that their active involvement, feedback and inputs are vital to enhance our safety systems and processes, including risk assessment, hazard reporting and incident investigations, we sharpened our focus in 2022 on engaging and empowering frontline staff to participate more actively in our HSE journey, in particular, to speak up and intervene if they encounter any unsafe behaviours and situations. We are committed to listen and act, to further enhance the culture of continuous safety improvement.

Following the unveiling of a new safety logo design in 2021, and the Group held a safety poster competition in 2022 with the theme, "Speak Up for Safety – Your Voice Matters!". The winning posters are used as publicity materials and on safety equipment to continue to raise awareness on HSE issues.

All new employees are required to undergo a safety induction course as part of their orientation programme. Staff are also regularly updated through advisories on incidents, safety legislation and training programmes via different channels.

Group HSE Alerts are also disseminated to share lessons learnt globally and ensure that preventive measures are taken promptly across all worksites.

During the year, more than 700 Keppelites, union members, contractors, partners and business associates convened at the 16th Keppel Group Safety Convention, to share experiences and reaffirm their commitment to HSE. A total of 21 Keppelites were recognised for their outstanding contributions to WSH, while 23 teams were lauded for their innovative HSE solutions at the Keppel Group HSE Awards.

In August 2022, Keppel's worksites around the world participated in the sixth Global Safety Time-Out to reinforce Keppel's commitment to HSE, and remind Keppelites and Keppel's contractors to continue to strengthen the Company's HSE culture.

### Performance

GRI 2-8 | 2-27 | 403-9 | 403-10

We are committed to continually improve our HSE performance by setting and reviewing targets, as well as monitoring and evaluating progress through performance management and audits.

## Performance

		Direct Workforce	Contract Workforce	Total
<b>2022</b>	AFR <sup>1</sup> (reportable accidents per million man-hours)	0.40	0.12	0.23
	ASR <sup>1</sup> (man-days lost per million man-hours)	183	214	202
	Occupational Disease Frequency Rate	0	0	0
	Recordable work-related injuries	47	89	136
	Recordable work-related injuries rate	1.25	1.55	1.43
	Lost Time Injury Frequency	0.45	0.57	0.52
	High-consequence injuries (excluding fatalities)	0	0	0
	High-consequence work-related injuries rate (excluding fatalities)	0	0	0
	Fatal Injury Rate <sup>2</sup>	7.64	10	9.07
	Number of man-hours	37,708,972	57,573,573	95,282,545
	Average contractor manpower <sup>3</sup>	N.A.	19,990	N.A.
<b>2021</b>	AFR <sup>1</sup> (reportable accidents per million man-hours)	0.18	0.17	0.18
	ASR <sup>1</sup> (man-days lost per million man-hours)	24	9	15
	Occupational Disease Frequency Rate	0	0	0
	Recordable work-related injuries	38	42	110
	Recordable work-related injuries rate	1.15	1.37	1.28
	Lost Time Injury Frequency	0.33	0.61	0.5
	High-consequence incidents (excluding fatalities)	2	0	2
	High-consequence work-related injuries rate (excluding fatalities)	0.06	0	0.02
	Fatal Injury Rate <sup>2</sup>	0	0	0
	Number of man-hours	33,080,478	52,624,349	85,704,827
	Average contractor manpower <sup>3</sup>	N.A.	18,272	N.A.
<b>2020</b>	AFR <sup>1</sup> (reportable accidents per million man-hours)	0.32	0.24	0.27
	ASR <sup>1</sup> (man-days lost per million man-hours)	167	8	76
	Occupational Disease Frequency Rate	0	0	0
	Total Recordable Injury Rate	1.11	1.55	1.36
	Lost Time Injury Frequency	0.45	0.63	0.55
	High-consequence incidents (excluding fatalities)	41	5	46
	Fatal Injury Rate <sup>2</sup>	7.62	0	3.25
	Number of man-hours	37,812,161	50,840,374	88,652,535
	Average contractor manpower <sup>3</sup>	N.A.	17,653	N.A.
	<b>2019</b>	AFR <sup>1</sup> (reportable accidents per million man-hours)	0.17	0.18
ASR <sup>1</sup> (man-days lost per million man-hours)		11.46	12.13	12
Occupational Disease Frequency Rate		0	0	0
Total Recordable Injury Rate		3.59	1.97	2.49
Lost Time Injury Frequency		0.40	0.89	0.73
High-consequence incidents (excluding fatalities)		0	3	3
Fatal Injury Rate <sup>2</sup>		0	0	0
Number of man-hours		34,820,644	70,547,675	105,368,319
Average contractor manpower <sup>3</sup>		N.A.	24,496	N.A.
<b>2018</b>	AFR <sup>1</sup> (reportable accidents per million man-hours)	0.27	0.23	0.25
	ASR <sup>1</sup> (man-days lost per million man-hours)	6	101	63
	Fatal Injury Rate <sup>2</sup>	0	4.4	2.7
	Number of man-hours	40,708,241	65,307,115	106,015,356
	Average contractor manpower <sup>3</sup>	N.A.	22,676	N.A.

$$1 \text{ Accident Frequency Rate (AFR)} = \frac{\text{No. of workplace accidents reported}}{\text{No. of man-hours worked}} \times 1,000,000$$

$$\text{Accident Severity Rate (ASR)} = \frac{\text{No. of man-days lost to workplace accidents}}{\text{No. of man-hours worked}} \times 1,000,000$$

<sup>2</sup> Fatal injuries per 100,000 employed persons.

$$3 \text{ Average contractor manpower} = \frac{\text{Total no. of man-hours worked}}{\text{Total man-hours per worker per year}}$$

Contractor man-hours are derived from each business unit's attendance systems. The average contractor manpower is calculated based on assumption of 24 working days a month, with 10 working hours per working day.

## Health and Safety



The BSSC makes regular site visits to better understand the issues faced by business units, and also strengthen the Company's safety culture and commitment to sustainability.

In 2022, the Group reported a total Accident Severity Rate (ASR) of 202 man-days lost per million man-hours, and a total Accident Frequency Rate (AFR) of 0.23 accidents per million man-hours in 2022<sup>1</sup>.

Despite our safety efforts, the Group suffered three workplace fatalities from two incidents in Keppel O&M's shipyard in 2022. The first incident involved the failure of a structure that was being assembled on a repair vessel which resulted in two fatalities, whilst the second involved the failure of a concrete pier that caused one fatality. We have thoroughly investigated these incidents and put in measures to prevent similar incidents in the future. Lessons learnt were shared across the Group.

There was no occurrence of occupational disease at worksites in 2022, including zero cases of workers who were diagnosed with noise-induced deafness, which is a major risk for the industries that Keppel is involved in.

The Group reported a total of 20 HSE incidents in 2022, of which 14 incidents involved our direct workforce and six incidents involved our contractors. The top three incident types were:

- Caught in between objects;
- Struck by moving objects;
- Slips, trips and falls.

In 2022, there were no insurance pay-outs due to high consequence<sup>2</sup>

incidents made under Work Injury Compensation Schemes.

In November 2022, Keppel O&M was issued fines totalling \$435,000 by Singapore's Ministry of Manpower for a fatal accident that took place in 2016.

### Worker Health & Wellness

GRI 403-3 | 403-4 | 403-6

Keppel promotes the wellness of its workforce through programmes that address physical and mental health-related risks. In 2022, the Group organised a Physical Well-being Month and a Mental Well-being Month with related activities in June and October respectively. Employee assistance programmes are also available to provide mental health support for employees and their dependents. Voluntary health promotion programmes held across the Group include a smoking cessation hotline, healthy snacks in pantries and canteens, as well as fitness classes. Regular health talks on stress management, mental well-being and diabetes prevention, among others, are organised at various worksites.

It is mandatory for all workers, including contract workers, to be covered by work injury compensation insurance prior to starting work at our worksites. Across the Group, our contractors partner clinics to provide contract workers with access to medical care. In-house medical centres are also located in all of Keppel O&M's shipyards.

Keppel O&M provides quality dormitories to house its migrant workers. These dormitories are equipped with gyms and sports facilities such as basketball, badminton and street soccer courts to promote healthy lifestyles. Keppel O&M also conducts regular dormitory visits to check on the well-being of workers.

### Recognition

The Group was conferred 11 WSH Awards in 2022 by Singapore's Ministry of Manpower and the WSH Council. Keppel Land clinched the WSH Developer Award which recognises developers who play an active role in ensuring good practices among their contractors. Keppel DHCS and Keppel O&M (New Builds Division) clinched the WSH Performance (Silver) award which recognises companies that have implemented sound safety and health management systems, including safeguarding their employees and contractors across all their worksites. Keppel O&M received six awards under the Safety and Health Award Recognition for Projects (SHARP) category for exemplary safety and health performance, and WSH management systems.

In addition, Keppel O&M (New Builds Division) was awarded the WSH Innovation award for developing the Robotic S.G.V., a gadget that can examine and lubricate crane wire ropes, which reduces the amount of work at height required by workers by half.

<sup>1</sup> Refers to a workplace accident that results in the injury of an employee who is given more than three consecutive days of medical leave or hospitalised for at least 24 hours; or a workplace accident that results in the injury of a self-employed person or non-employee who receives treatment in hospital.

<sup>2</sup> A high-consequence incident is one from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within 6 months (e.g. amputation of limb, fracture with complications). This definition is adopted across Keppel's global operations.



# Community Development

We aim to contribute to the community and collaborate with partners to support programmes that make a positive impact.

## Performance Overview

GRI 3-3



### 2022 Targets

- Continue to encourage staff volunteerism worldwide.
- Continue to support programmes aligned with Keppel's goals of caring for the underprivileged, protecting the environment and supporting education.
- Launch new Corporate Social Responsibility (CSR) programmes leveraging the Group's diverse capabilities.



### 2022 Performance

- Achieved over 14,000 hours of volunteer community service globally, higher than the 12,000 hours in 2021.
- Contributed about \$4.3 million to worthy causes.
- Pledged \$1 million to Dementia Singapore to support persons with dementia and their caregivers, leveraging the Group's senior living capabilities.
- Committed \$300,000 to Gardens by the Bay to support public education tours on nature and sustainability.
- Contributed to planting around 3,140 trees in 2022 as part of Keppel's support for the OneMillionTrees movement in Singapore.
- Launched the Living Well programme to provide clean water to about 20,000 villagers in Vietnam.
- Launched R.I.S.E. to the Challenge II, a public outreach programme to increase awareness of the impact of rising sea levels.



### 2023 Targets

- Achieve over 8,000 hours of staff volunteerism globally.
- Support programmes aligned with Keppel's goals of caring for the underprivileged, protecting the environment and supporting education.
- Leverage the Group's capabilities to contribute to the communities where we operate.



### Longer Term Targets

- Contribute to nature-based solutions to fight climate change with the planting of 10,000 trees in Singapore over five years (2021-2025).
- Drive collaboration with organisations that share Keppel's commitment to have a positive impact on our communities.

## Community Development

### Overview

GRI 3-3

Keppel aims to deliver lasting social, economic and environmental benefits to the communities where we operate.

We invest in worthy causes that resonate with the Company’s values. These include caring for the underprivileged, protecting the environment, nurturing creativity and an appreciation for the arts among children and youths, as well as empowering lives through education.

We also support industry advancement initiatives and thought-leadership platforms which promote sustainable business practices and foster collaboration among different stakeholders.

Keppel Corporation was named a Champion of Good 2022 by the National Volunteer & Philanthropy Centre which recognises organisations that are exemplary in doing good while multiplying the impact of their corporate giving by engaging their partners and stakeholders. Keppel was also awarded the Patron of the Arts Award (Corporate) 2022 by the National Arts Council, which honours individuals and organisations for their contributions towards the development of the arts.

### Report Boundary

GRI 3-3

The boundary for the material topic of community development includes the Group’s major subsidiaries in Singapore, and overseas operations in which the Group has management control.

### Management Approach

GRI 3-3 | 413-1 | 413-2 | 415-1

We commit up to 1% of the Group’s net profit to worthy causes. In 2022, the Keppel Group invested about \$4.3 million in social investment spending and industry advancement. This includes close to \$1.9 million disbursed in Singapore through Keppel Care Foundation, the Group’s philanthropic arm, which is governed by its own Board of Directors. As at end-2022, the Foundation has disbursed over \$52 million to worthy causes since its launch in 2012.

Beyond philanthropic giving, Keppel encourages employees to be responsible citizens. Keppel Volunteers, the Company’s volunteer movement, works closely with the Foundation and the Group’s business units to drive volunteerism. To encourage volunteerism, Keppel grants employees two days of volunteer leave annually. In 2022, Keppel Volunteers around the world

achieved over 14,000 hours of community service, despite restrictions and challenges posed by the COVID-19 pandemic.

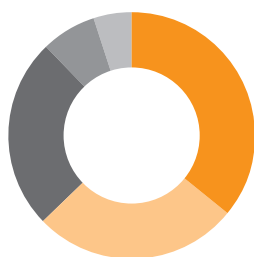
We maximise our corporate giving outcomes by partnering businesses and the community. In Singapore, our business units are partners of Community Chest’s SHARE, a voluntary employee payroll donation programme. As at end-2022, employees of the Keppel Group have contributed over \$3.24 million through SHARE since 1988.

In line with Keppel Group’s Donations & Sponsorships Policy, we did not make any donations or sponsorships to any political party, or politicians for any campaign and/or related purposes in 2022.

Keppel supports sustainability-related industry/business associations and think tanks which are aligned with our purpose of creating solutions for a sustainable future, as well as those which promote good corporate governance and sustainable business practices. In 2022, our total support to these organisations amounted to about \$283,000. The three largest contributions were \$20,000 each, to the Institute of Policy Studies, the Singapore Institute of International Affairs, and the Singapore Business Federation.

### Social Investment Spending and Industry Advancement

By Project Type in 2022 (%)



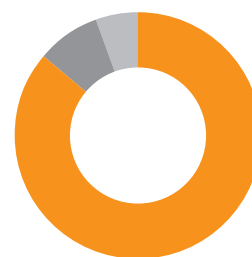
● Care for the Underprivileged/Healthcare	36
● Environment	27
● Arts/Sports/Community Development Projects	25
● Industry Advancement <sup>1</sup>	7
● Education	5
<b>Total</b>	<b>\$4.3 million 100</b>

By Type of Activities in 2022<sup>2</sup> (%)



● Community Investments	45
● Commercial Initiatives	44
● Charitable Donations	11
<b>Total</b>	<b>100</b>

By Type of Contribution in 2022 (\$'000)



● Total Social Investment Spending	4,328
● Cash Contributions	3,105
● In-kind Contributions <sup>3</sup>	1,223
● Employee Time <sup>4</sup>	424
● Management Cost	270
<b>Total</b>	<b>5,022</b>

<sup>1</sup> Industry advancement includes events and thought leadership platforms that foster collaboration and the exchange of ideas, with the aim of promoting sustainable business practices. Keppel supports such platforms that are aligned with our mission to provide solutions for sustainable future. In 2022, such platforms included the Waste Management Conference and Exhibition in Doha, Qatar, the International Built Environment Week in Singapore, Singapore International Energy Week, and the SID Directors Conference.

<sup>2</sup> The definitions of community investments, commercial initiatives and charitable donations follow the Business for Societal Impact (B4SI) model. Community investments refer to long-term strategic involvement in, and partnership with, community organisations to address specific social issues chosen by the company. Commercial initiatives refer to business-related activities undertaken in partnership with charities and community-based organisations. Charitable donations refer to traditional philanthropy or grant-making.

<sup>3</sup> In-kind giving refers to product or services-related donations, project/partnerships or similar.

<sup>4</sup> Employee volunteering during paid working hours.



**Donations & Sponsorships**

**\$4.3m**

Invested in worthy causes in 2022.

**Keppel Care Foundation**

**>\$52m**

Disbursed by Keppel Care Foundation since its launch in 2012.

**Support for Education**

**\$22m**

Disbursed since 2012 to fund bond-free scholarships, academic awards, bursaries and study grants for deserving students from low-income families.

**Scholarships & Bursaries**

**>960**

Bond-free scholarships, bursaries, study grants and academic awards awarded as at end-2022.

# Impact at a Glance

Keppel invests in worthy causes that resonate with the Company's values. Through engaging and nurturing communities, we contribute to building a sustainable future together.

**Volunteerism**

**>14,000 hrs**

Of community work achieved by Keppel Volunteers in 2022.

**Volunteer Activities**

**>220**

Volunteer activities and initiatives carried out in 2022 in communities where we operate.

**Impact**

**>16,000**

Households and individual lives touched through our volunteerism efforts in 2022.



## Community Development



In 2022, Keppel pledged \$1 million over three years to support Dementia Singapore, Singapore's leading social service agency specialising in dementia care, in building a dementia-inclusive community. President of Singapore, Mdm Halimah Yacob (centre) together with Mr Danny Teoh (third from left), Chairman of Keppel Corporation, Mr Loh Chin Hua (fifth from left), CEO of Keppel Corporation and Ms Christina Tan (fourth from right), CEO of Keppel Capital, interacting with beneficiaries of Dementia Singapore at the New Horizon Centre (Toa Payoh) supported by Keppel.

### Caring for the Underprivileged

We work closely with partners and social organisations to support the most vulnerable communities and improve their well-being.

#### Dementia Singapore

In 2022, Keppel pledged \$1 million over three years to support Dementia Singapore, Singapore's leading social service agency specialising in dementia care, in building a dementia-inclusive community. With an ageing population, and more people expected to be impacted by dementia, the donation supports Dementia Singapore in addressing the diverse needs of persons with dementia, which includes subsidising fees for daycare services for those from lower income groups, running enrichment programmes, as well as providing support and relief for persons with dementia and their caregivers.

The donation reflects Keppel's focus on contributing to the community, and is in line with the Company's plans to grow its involvement in the senior living sector. The Group will leverage its capabilities in senior living to explore opportunities for further collaboration with Dementia Singapore.

#### SPD Sheltered Workshop

In 2019, Keppel pledged \$500,000 over three years (2020-2022) to support the Sheltered Workshop programme run by SPD, a Singapore charity supporting persons with disabilities. The programme aims to help persons with disabilities improve their

employability through providing vocational training, therapy and employment support services. Apart from financial support, Keppel also brings the Group's capabilities in areas such as engineering, workplace safety, business development and marketing to enhance the programme through skills-based volunteerism. The enhancements aim to support the Sheltered Workshop to stay relevant and economically viable in the long term.

Since 2020, Keppel Young Leaders (KYL) have been supporting SPD to develop new and commercially appealing products for the Sheltered Workshop. A new apprenticeship programme was also organised to equip trainees with the skills to craft new leather products. As at end-2022, the partnership has trained 30 new artisans in leather crafting and aims to upskill more trainees in the future.

The SPD online store has seen an increase in annual net sales, supported by KYL's contributions to its marketing and branding efforts. In 2022, annual sales made through SPD's e-shop increased by more than 120% compared to 2020.

#### NKF Dialysis Centre Supported by Keppel

In April 2022, the National Kidney Foundation (NKF)'s new dialysis centre, which was developed with a \$2 million donation from Keppel Corporation through the Group's philanthropic arm, Keppel Care Foundation, was officially opened by Minister for Health,

Mr Ong Ye Kung. Strategically co-located within Yishun Community Hospital and adjacent to Khoo Teck Puat Hospital, it is the first NKF Dialysis Centre to be integrated within a hospital compound, giving patients ease of access to care and services.

It is also the first of NKF's centres to offer fully integrated and seamless dialysis care for both haemodialysis and peritoneal dialysis (PD) patients. As at end 2022, the centre was supporting 191 haemodialysis patients and 132 PD patients. The centre is equipped with 22 dialysis stations which can benefit up to 132 haemodialysis patients weekly, and has a designated space to provide PD services to up to 20 PD patients a month.

#### Poverty Alleviation in China

Following the success of the "Working Together for a Brighter Future" programme, a RMB 5 million collaboration between Keppel Corporation and the China Foundation for Poverty Alleviation (CPFA) which first began in 2018, Keppel launched a further two-year programme with CPFA in end-2020 focusing on needy students from 20 schools in the Guangnan and Luquan counties in Yunnan province.

The programme funded the upgrading of kitchen facilities in selected schools and provided students with nutritious food every school day. Beyond financial support, Keppel staff also volunteered to encourage active learning by the students as part of the programme. More than 13,000 students

in China have benefitted from Keppel's collaboration with CFPA as at end-2022.

### Supporting the Community Amidst the Pandemic

In April 2022, Keppelites in Shanghai initiated a special OneKeppel CSR programme to support the local community amid the COVID-19 lockdown. Teams from Keppel Land China and Keppel Capital China collaborated with local organisations to deliver food items to the elderly and construction workers in Shanghai who had difficulty accessing food and other daily necessities. They included about 650 elderly residents and staff in Shanghai Zhongren Charity Center Jiading Senior Living House, as well as 500 construction workers in Shanghai's Jing'an District who were involved in the construction of centralised quarantine facilities in the city.

### Clean Water for Villagers in Vietnam

In 2022, Keppel Land launched the Living Well initiative to provide water filtration systems that offer about 20,000 villagers in the Dai Hoa Loc and Bao Thuan communes in Ben Tre province in Vietnam better access to clean drinking water. These areas have been severely affected by harsh drought and saltwater intrusion since 2020, which destroyed thousands of hectares of rice fields and fruit orchards, and resulted in a lack of fresh water to meet the villagers' daily needs.

Sponsored by Keppel Land, the Living Well initiative harnessed the capabilities of the Group in providing sustainability solutions. The water filtration systems can produce 6,000 litres of clean water a day for domestic use, for each commune. The Living Well project took a year of planning, including land surveys, inspection and testing of the systems, and leveraged Keppel Infrastructure's expertise in water solutions.

### Environmental Protection

We work closely with partners to drive initiatives that raise awareness on environmental protection, conserve biodiversity and contribute to climate action.

### Supporting the OneMillionTrees Movement

Keppel supports nature-based solutions to climate change. In 2020, Keppel pledged to donate \$3 million to the Garden City Fund to support the planting of 10,000 trees in parks and nature reserves in Singapore over five years, as part of NParks' OneMillionTrees movement. This is to help improve Singapore's urban environment and enhance its national resilience against climate change. As at end-2022, 3,750 trees out of the 10,000 trees committed have been planted, with 3,143 trees planted in 2022.

### Keppel Coastal Trail

Building on Keppel's support for the OneMillionTrees movement, Keppel pledged

in 2021 to donate a further \$1 million to the Garden City Fund to support the development of the Keppel Coastal Trail at Labrador Nature Reserve, where around half of the 10,000 trees will be planted. When completed, the Trail will allow visitors to enjoy the coastal forest while ensuring the long-term conservation of the nature reserve. The area will be planted with native species that are suited to the coastal environment. Information boards will allow visitors to learn more about the history of the coastline over the years, the native flora and fauna that can be found at beach forests and rocky shores, how the environment might change with rising sea levels, and why conserving natural coastal habitats is important for climate resilience.

### Keppel Discovery Wetlands

Established with a \$2.08 million contribution from Keppel, the Keppel Discovery Wetlands at the Singapore Botanic Gardens includes a plant collection of over 200 species, allowing visitors to enjoy a restored freshwater forest wetland in the heart of the city.

Since its launch in March 2017, the Learning Forest where the Keppel Discovery Wetlands is located, has attracted about 1.7 million visitors, of which about 191,000 visited in 2022.

### Nature and Sustainability Tours

In November 2022, on the occasion of the 10th anniversary of Gardens by the Bay in Singapore, Keppel pledged \$300,000 over three years to support the new Nature and Sustainability Tours programme at the Gardens. The programme comprises free guided walking tours of the Gardens to educate visitors about the importance and interconnectedness of the natural

environment, biodiversity and climate change, as well as raise awareness on the urgency of climate action.

The tours are led by professional guides and comprise eight different routes structured around climate change and bioersity-related themes. Since its commencement in December 2022, the tours have been very well received by the public, with most of the tours fully taken up.

### School Green Awards

Keppel pledged \$50,000 to support the School Green Awards organised by the Singapore Environment Council. The School Green Awards serves as a platform for students to develop and showcase their environmental efforts through customised activities which help them enhance their understanding of the environment.

In 2022, over 300 entries were received from preschools to institutes of higher learning, with 200,000 students and teachers submitting projects that champion environmental action such as tree planting, recycling and urban farming.

### R.I.S.E. to the Challenge II

In August 2022, Keppel Land extended the 'R.I.S.E. to the Challenge' public outreach programme, which aims to raise awareness on rising sea levels and the pressing need for climate action, for another two years. First launched in 2020 in collaboration with the Sustainable Singapore Gallery which is managed by PUB, the first run of the programme engaged over 50,000 persons, including school children, building tenants and members of the public through a series of exhibitions in schools and at various commercial properties in Keppel's portfolio.



In Vietnam, Keppel was recognised for its positive contributions to the local community through meaningful CSR initiatives such as the Living Well programme (pictured).

## Community Development

'R.I.S.E. to the Challenge II' is expected to reach out to about 340 schools and potentially more than 680,000 students and school leaders. In addition to physical exhibitions, an e-book based on the rich exhibition content will be disseminated to all primary and secondary schools as well as junior colleges in Singapore. An inter-school competition is also being organised where students can showcase the climate action initiatives and environmentally friendly projects undertaken at their schools through short videos on social media.

### Powering a Brighter Future

Keppel Electric partnered Terra SG, a regional sustainability social enterprise headquartered in Singapore, to launch a roving exhibition named 'Powering a Brighter Future', which educates students on the urgency of the climate crisis and encourages them to do their part in combating climate change.

The roving exhibition and games, which commenced in September 2022, have reached out to more than 20,000 students in eight schools.

### Raising Awareness on Conserving Biodiversity

In 2022, Keppel also contributed to the Land Transport Authority's Gift of Art programme by donating two sculptures by well-known Australian artists Gillie and Marc, depicting a baby Indian Elephant and a baby Black Rhinoceros, which will be displayed at the upcoming Keppel MRT Station in Singapore. The donation of the two sculptures of critically endangered animals reflect Keppel's commitment to environmental sustainability, and aim to raise public awareness on the

importance of conserving biodiversity. They also add vibrancy to public spaces.

### Promoting Education

Inclusive, quality education can lift communities out of poverty by enabling children and youth to create brighter futures for themselves and their families. Since its inception in 2012, Keppel Care Foundation has disbursed over \$22 million to educational causes, which include scholarships and bursaries for students from universities and institutes of higher learning.

### Scholarships and Bursaries

Scholarships and bursaries funded by Keppel promote education and provide students from disadvantaged backgrounds with access to quality education.

In 2022, around 150 academic awards and bursaries funded by Keppel Care Foundation were disbursed to students across different institutions. A total of 961 students have benefited from the scholarships, bursaries and awards since the establishment of Keppel Care Foundation.

In 2022, Keppel also donated \$80,000 to the School of the Arts (SOTA) Endowment Fund, which provides students with bursaries, scholarships and other forms of financial assistance to level the playing field and make arts education accessible to all.

In Vietnam, Keppel Land continued its support of the Nang Buoc Thu Khoa scholarship programme for the third consecutive year. This scholarship programme is part of local newspaper Tien Phong's Fund for Young

Talents of Vietnam which supports top students with financial difficulties who are pursuing their studies at leading universities in Vietnam. Since its launch in 2020, a total of 45 scholarships have been awarded to valedictorians of the university entrance exams over the last three years.

### Fostering Creativity & Appreciation of the Arts

We believe that the arts inspire, contribute towards civic engagement and social cohesion, and build bridges between cultures. Through supporting the arts, we aim to stimulate the cross-fertilisation of ideas, and foster creativity and expression. This in turn contributes to the vibrancy of our communities.

### Keppel Nights

Keppel Corporation committed \$500,000 to Esplanade in 2018 in support of the Keppel Nights programme, which provides opportunities for students to enjoy performances at Esplanade on a fully-funded basis. During the pandemic, attendance at Keppel Nights slowed down due to COVID-19-related restrictions. However, in the second half of 2022 when live events resumed at Esplanade, close to 300 students attended performances under the Keppel Nights programme. Over the past decade, Keppel Nights has enabled close to 30,000 students from more than 75 schools to enjoy arts and cultural performances presented by Esplanade.

### Keppel Centre for Art Education

Established with a \$12 million commitment from Keppel, the Keppel Centre for Art Education at National Gallery Singapore is the first art education facility of its kind in the region.








'R.I.S.E. to the Challenge II' was launched by Minister for National Development and Minister-in-Charge of Social Services Integration, Mr Desmond Lee (top row, fourth from left).

I started working part-time at the age of 15 to support myself financially. Having to juggle full time studies with work was not easy. I was worried that I could not cope with my financial difficulties and thought of dropping out of school and start working full time instead.

However, being nominated for the Keppel Care Foundation scholarship has lightened my financial burdens and I am able to focus more on my studies. I have also joined leadership programmes and competitions while in school, and have more time to do my revision and even take a break from working.

**Siti Nur'Ismiraldha Binte Abdullah**, a Keppel Care Foundation scholarship recipient who graduated from the Nitec course in Travel & Tourism in 2021

## Scholarships and Bursaries

School	Award	Description
 Institute of Technical Education	Keppel Care Foundation Scholarship	The Keppel Care Foundation Scholarship recognises and rewards outstanding ITE students from disadvantaged backgrounds. Three students received the scholarship in 2022, and a total of 12 scholarships have been conferred since its inception in 2018.
	Keppel Merit Awards	The Keppel Merit Awards provide monthly financial support for deserving students from low-income families. 52 students received the award in 2022, and a total of 123 awards have been conferred since its inception in 2018.
 NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE	Keppel Environmental Studies Gold Medal	Established in 2021, the Keppel Environmental Studies Gold Medals recognise and reward the top two graduating students of NTU's Bachelor of Science in Environmental Earth Systems Science annually. As of end-2022, a total of four students have received the medal.
 NUS National University of Singapore	Keppel Bursary at NUS	In 2011, the Keppel Bursary at NUS was set up to help undergraduates with financial needs residing at NUS University Town. The bursary was conferred to 26 students in 2022, and a total of 233 students have received the bursary since its inception.
	Keppel Bursary for Engineering	In 2015, the Keppel Bursary for Engineering was established to support financially disadvantaged engineering students. The bursary was conferred to 18 students in 2022, and a total of 126 students have received the bursary since its inception.
 SINGAPORE INSTITUTE OF TECHNOLOGY	Keppel Study Grant	The Keppel Study Grant was established in 2012 to support worthy but financially disadvantaged undergraduates enrolled in full-time engineering undergraduate degree programmes. 12 students were awarded the grant in 2022, and a total of 99 students have received the grant since its inception.
	SIT-Keppel Gold Medals	The SIT-Keppel Gold Medals were established in 2012, and are conferred annually to the top performing graduating students from selected engineering and design-related degree programmes. Four students received the medal in 2022, and a total of 47 students have received the medal since its inception.
 SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN	Keppel Care Foundation-SUTD Scholarship	The Keppel Care Foundation-SUTD Scholarship was established to encourage academic and learning excellence in students while supporting those with financial need. One student was awarded the scholarship in 2022, and a total of 10 students have received the scholarship since its inception in 2015.
	Keppel Award of Excellence	The Keppel Award of Excellence recognises and rewards the top two students in each of the freshmore, junior, senior and master years at SUTD. 14 students were awarded in 2022 and a total of 123 students have been awarded since its inception in 2013.
	Keppel Bursary Award	The Keppel Bursary Award supports deserving students with demonstrated financial need. 19 students were conferred the award in 2022 and a total of 158 students have been conferred the award since its inception in 2013.

## Community Development



Mayor and Governor of Vienna, Dr Michael Ludwig (front row, second from left), received the Lee Kuan Yew World City Prize 2020 from President of Singapore, Mdm Halimah Yacob (front row, third from left), at a ceremony which was also attended by Minister for National Development and Minister-in-Charge of Social Services Integration, Mr Desmond Lee (front row, first from right), Chairman of Keppel Corporation, Mr Danny Teoh (second row, first from left), and CEO of Keppel Corporation, Mr Loh Chin Hua (second row, first from right). Photo credit: Ministry of National Development.

The Centre has hosted over 2 million visitors since its launch in 2015. Notwithstanding the COVID-19 pandemic, the Centre received over 280,000 visitors in 2022.

Educators have shared that the immersive spaces at the Centre encourage creativity and self-led exploration in children, and help to improve students' visual inquiry skills. The programmes offered at the Centre also promote family bonding.

The Singapore Ministry of Education's museum-based learning programme resumed physical visits to the centre in April 2022. During the year, over 11,000 students from 87 schools visited the Keppel Centre for Art Education, while virtual tours were also offered to other students.

### Advancing Corporate Sustainability

We collaborate with governments and industry partners to support knowledge sharing platforms and events that promote responsible business practices and a sustainable future.

### SID Directors Conference

Keppel was a gold sponsor of the Directors Conference by the Singapore Institute of Directors (SID) to promote the professional development of

directors and corporate leaders, and support thought leadership and benchmarking on corporate governance and directorship.

### Singapore International Energy Week

Keppel was a sponsor and active participant of the Singapore International Energy Week 2022, organised by the Singapore Energy Market Authority. The conference brought together policymakers, industry leaders and energy professionals to share key trends, best practices and solutions within the global energy sector.

### Singapore International Water Week

Keppel was a sponsor of Singapore International Water Week 2022, a global platform to share best practices in the global water industry and showcase the latest solutions and technologies to address pressing water issues.

### CleanEnviro Summit Singapore

Keppel Seghers was a sponsor of the CleanEnviro Summit in 2022. The summit serves as a global platform to highlight pressing and pertinent issues about the environment such as promoting circular economy frameworks, adopting climate-resilient policies and safeguarding public health standards.

### World Expo Dubai

Keppel Corporation was a Prime Sponsor of the Singapore Pavilion at the Expo 2020 Dubai in the United Arab Emirates from October 2021 to March 2022. The theme of the pavilion, "Nature. Nurture. Future.", which resonates with Keppel's purpose, highlights Singapore's experience in overcoming its physical limitations as a small island city-state and adapting itself to become a highly liveable and sustainable city.

### World Cities Summit

Keppel Corporation has been the sole sponsor of the Lee Kuan Yew World City Prize at the biennial World Cities Summit since its inauguration in 2010 and has committed \$3.5 million to sponsor it through to 2028. The Prize is an international award that honours outstanding achievements and contributions to the creation of liveable, vibrant and sustainable urban communities around the world. It aims to encourage learning from cities that have showcased successful efforts in urban renewal and development for sustainable growth. The Prize is awarded to cities and recognises their key leaders and organisations for displaying foresight, good governance and innovation in tackling the many urban challenges faced, to bring about social, economic and environmental benefits in a holistic way to their communities.



## About This Report

GRI 2-3

This report focuses on the sustainability strategy and practices of Keppel Corporation and its subsidiaries, related to the material environmental, social and governance (ESG) aspects of our business operations.

The report provides an overview of our management approach, priorities, targets and performance reviews in key areas. The content was defined by identifying and prioritising the Company's material ESG factors through a comprehensive materiality assessment conducted in 2022. We printed limited copies of this report to minimise environmental impact. A PDF version is available at [www.keppcorp.com](http://www.keppcorp.com).

Our stakeholders are advised to also read Keppel Corporation's Annual Report 2022, available at [www.keppcorp.com/annualreport2022](http://www.keppcorp.com/annualreport2022), for more information on the Group's businesses, strategy, performance and prospects.

### Reporting Period & Standards

GRI 2-3

This report is published annually and covers the same period as the financial year of the Company (January to December 2022), unless otherwise stated. Our last sustainability report was published in May 2022. Where possible, we shared three-year historical information to provide a meaningful basis for comparison. Standard units of measurement have been used and conversion factors may be found in the relevant sections. All dollar values expressed are in Singapore dollars.

This report has been prepared in accordance with the Singapore Exchange (SGX) Listing Rules 711A, 711B and Practice Note 7.6 Sustainability Reporting Guide, including SGX's recommendations on ESG core metrics, as well as the Global Reporting Initiative (GRI) Sustainability Reporting Standards. The GRI Standards were chosen as GRI is an internationally recognised and widely used standard for sustainability reporting, built on the concepts of impact, material topics, human rights due diligence and stakeholder engagement.

We support the Task Force on Climate-related Financial Disclosures (TCFD) and have incorporated its recommendations in our reporting, to better assess and report on the financial impact of climate-related risks and opportunities on the Group's business.

We are a participant of the United Nations Global Compact and are committed to its 10 principles. This report serves as supplemental documentation to our Communication on Progress.

The report was submitted for the GRI Content Index – Essentials Service. GRI reviewed that Disclosures 2-1, 2-2, 2-3, 2-4, 2-5, 3-1 and 3-2 are correctly located in both the GRI Content Index and in the text of the final report.

### Report Boundary

GRI 2-2

This report covers global operations and all subsidiaries for which the Group has management control, unless otherwise indicated<sup>1</sup>. The Group structure is provided on page 12.

The reporting boundary for financial data is the same as that of the Company's Annual Report 2022. The reporting boundaries for our material topics are in general based on operational control. However, where different boundaries are used for specific topics due to differences in where the impacts occur, the separate boundaries will be specified in the respective sections of the report.

### Independent External Assurance

GRI 2-5

Keppel Corporation appointed an independent third party, DNV, to provide assurance on this report. The content was reviewed, and the accuracy and reliability of the statements were validated in accordance with DNV's assurance methodology VeriSustain™<sup>2</sup>. DNV VeriSustain includes the requirements set out for assurance in accordance with international assuring best practice, including the International Standard on Assurance Engagements (ISAE) 3000 Revised<sup>3</sup> by the International Federation of Accountants and the Global Reporting Initiative's (GRI) Principles for Defining Report Content and Report Quality. The Assurance Statement is published on pages 102 to 106.

### Internal Review

In 2022, Keppel's Group's Internal Audit department also conducted an internal review of the Group's sustainability reporting process, in line with SGX's Listing Rules and Sustainability Reporting Guide, to further strengthen the Company's procedures and controls.

### Feedback

GRI 2-3

This report demonstrates our commitment to keep our stakeholders abreast of Keppel's sustainability performance. We welcome feedback.

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<sup>1</sup> Sustainability data cited in the report is mapped against the operations of Keppel's business units depicted on page 12 of this report, rather than the full list of legal entities and holding companies on pages 218 to 226 of the Annual Report, as the latter includes investment holding companies, entities with no emissions, and project companies holding projects that may not have commenced.

<sup>2</sup> The VeriSustain™ protocol is available on [www.dnv.com](http://www.dnv.com).

<sup>3</sup> Assurance Engagements other than audits or reviews of historical financial information.

## GRI Content Index

**This report has been prepared in accordance with the GRI Standards.**

Our GRI Content Index specifies each of the GRI Standards disclosures included in this Sustainability Report and in our Annual Report 2022. Keppel Corporation's AR2022 can be found at [www.keppelcorp.com/annualreport2022](http://www.keppelcorp.com/annualreport2022).

For the Content Index – Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for disclosures 2-1 to 2-5, 3-1 and 3-2 are aligned with the appropriate sections in the body of the report.

<b>Statement of Use</b>	Keppel Corporation Limited has reported in accordance with the GRI Standards for the period 1 January 2022 to 31 December 2022.
<b>GRI 1 Used</b>	GRI 1: Foundation 2021
<b>Applicable GRI Sector Standard(s)</b>	None

GRI Standard	Disclosure Number	Disclosure Title	Page References	Omission			External Assurance Yes (Y)
				Requirement(s) Omitted	Reason	Explanation	
<b>General Disclosures</b>							
GRI 2: General Disclosures 2021	2-1	Organisational details	10-12, AR2022 (245)				Y
	2-2	Entities included in the organisation's sustainability reporting	12				Y
	2-3	Reporting period, frequency and contact point	97				Y
	2-4	Restatements of information	41				Y
	2-5	External assurance	102-106				Y
	2-6	Activities, value chain and other business relationships	10-12, 69, AR2022 (30-31)				Y
	2-7	Employees	74-75, AR2022 (238)				Y
	2-8	Workers who are not employees	86				Y
	2-9	Governance structure and composition	14-15, 45, AR2022 (82, 111)				Y
	2-10	Nomination and selection of the highest governance body	51, AR2022 (86)				Y
	2-11	Chair of the highest governance body	45, AR2022 (82)				Y
	2-12	Role of the highest governance body in overseeing the management of impacts	14-15, 45, AR2022 (82-83)				Y
	2-13	Delegation of responsibility for managing impacts	14-15, 45, AR2022 (82-83)				Y
	2-14	Role of the highest governance body in sustainability reporting	14-15, 24				Y
	2-15	Conflicts of interest	47				Y
	2-16	Communication of critical concerns	53, 77, AR2022 (112)				Y
	2-17	Collective knowledge of the highest governance body	47				Y
	2-18	Evaluation of the performance of the highest governance body	51, AR2022 (111)				Y
	2-19	Remuneration policies	52, AR2022 (92-98)				Y
	2-20	Process to determine remuneration	52, AR2022 (92-98)				Y

GRI Standard	Disclosure Number	Disclosure Title	Page References	Omission			External Assurance Yes (Y)
				Requirement(s) Omitted	Reason	Explanation	
GRI 2: General Disclosures 2021	2-21	Annual total compensation ratio	–	a, b, c	Confidentiality constraints	Information is confidential	Y
	2-22	Statement on sustainable development strategy	4-7				Y
	2-23	Policy commitments	20-23, 56				Y
	2-24	Embedding policy commitments	20-23, 56				Y
	2-25	Processes to remediate negative impacts	AR2022 (112)				
	2-26	Mechanisms for seeking advice and raising concerns	AR2022 (112)				
	2-27	Compliance with laws and regulations	43, 53, 66, 88				Y
	2-28	Membership associations	15, 38, 86				Y
	2-29	Approach to stakeholder engagement	16				Y
	2-30	Collective bargaining agreements	78				Y
<b>Material Topics</b>							
GRI 3: Material Topics 2021	3-1	Process to determine material topics	17				Y
	3-2	List of material topics	18-19				Y
<b>Environmental Stewardship</b>							
<b>Climate Action and Environmental Management</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	20, 32-43				Y
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	36-37, 41				Y
	302-2	Energy consumption outside of the organisation	41				Y
	302-3	Energy intensity	36				Y
	302-4	Reduction of energy consumption	36-37				Y
	302-5	Reductions in energy requirements of products and services	34-37				Y
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	37-38				Y
	303-2	Management of water discharge-related impacts	38, 41				Y
	303-3	Water withdrawal	37, 41				Y
	303-4	Water discharge	38, 41				Y
	303-5	Water consumption	38, 41				Y
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	39-41				Y
	305-2	Energy indirect (Scope 2) GHG emissions	39-41				Y
	305-3	Other Indirect (Scope 3) GHG emissions	39-41				Y
	305-4	GHG emissions intensity	39				Y
	305-5	Reduction of GHG emissions	39-41				Y
	305-6	Emissions of ozone-depleting substances (ODS)	–	a, b, c, d	Not applicable	We do not produce, import or export ODS.	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	40				Y
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	39, 41				Y
	306-2	Management of significant waste-related impacts	39, 41				Y
	306-3	Waste generated	39, 41				Y
	306-4	Waste diverted from disposal	39, 41				Y
	306-5	Waste directed to disposal	39, 41				Y

\* References to Keppel Corporation's Annual Report 2022 are expressed as 'AR2022 (page number)'. Keppel Corporation's Annual Report 2022 is available at [www.keppcorp.com/annualreport2022](http://www.keppcorp.com/annualreport2022).

Other Information

GRI Content Index

GRI Standard	Disclosure Number	Disclosure Title	Page References	Omission			External Assurance Yes (Y)
				Requirement(s) Omitted	Reason	Explanation	
<b>Responsible Business</b>							
<b>Corporate Governance and Risk Management</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	44-63				Y
GRI 205: Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	55				Y
	205-2	Communication and training about anti-corruption policies and procedures	53, 56-57, AR2022 (102)				Y
	205-3	Confirmed incidents of corruption and actions taken	53				Y
<b>Economic Contribution to Society</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	64-67				Y
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	65-67				Y
	201-2	Financial implications and other risks and opportunities due to climate change	24-26				Y
	201-3	Defined benefit plan obligations and other retirement plans	75-76				Y
	201-4	Financial assistance received from government	67				Y
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	67				Y
	203-2	Significant indirect economic impacts	67				Y
GRI 207: Tax 2019	207-1	Approach to tax	66				Y
	207-2	Tax governance, control, and risk management	66				Y
	207-3	Stakeholder engagement and management of concerns related to tax	66				Y
	207-4	Country-by-country reporting	66				Y
<b>Supply Chain Management</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	68-71				Y
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	70				Y
	308-2	Negative environmental impacts in the supply chain and actions taken	71				Y
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	70				Y
	414-2	Negative social impacts in the supply chain and actions taken	70				Y

GRI Standard	Disclosure Number	Disclosure Title	Page References	Omission			External Assurance Yes (Y)
				Requirement(s) Omitted	Reason	Explanation	
<b>People and Community</b>							
<b>Human Capital Management</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	72-81				Y
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	76-77				Y
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	75				Y
	401-3	Parental leave	74-75				Y
GRI 404: Training & Education 2016	404-1	Average hours of training per year per employee	79				Y
	404-2	Programmes for upgrading employee skills and transition assistance programmes	80-81				Y
	404-3	Percentage of employees receiving regular performance and career development reviews	75				Y
GRI 405: Diversity & Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	74-76, 79				Y
	405-2	Ratio of basic salary and remuneration of women to men	79				Y
GRI 406: Non-Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	77				Y
<b>Health and Safety</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	82-88				Y
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	84				Y
	403-2	Hazard identification, risk assessment, and incident investigation	84-85				Y
	403-3	Occupational health services	88				Y
	403-4	Worker participation, consultation, and communication on occupational health and safety	86, 88				Y
	403-5	Worker training on occupational health and safety	86				Y
	403-6	Promotion of worker health	88				Y
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	70, 86, 88				Y
	403-8	Workers covered by an occupational health and safety management system	84				Y
	403-9	Work-related injuries	87				Y
	403-10	Work-related ill health	87				Y
<b>Community Development</b>							
GRI 3: Material Topics 2021	3-3	Management of material topics	89-96				Y
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programmes	89-96				Y
	413-2	Operations with significant actual and potential negative impacts on local communities	89-96				Y
GRI 415: Public Policy 2016	415-1	Political contributions	90				Y

# Independent Assurance Statement



## Introduction

DNV Business Assurance Singapore Pte. Ltd. has been commissioned by the management of Keppel Corporation Limited (“Keppel”, Company Registration Number: 196800351N) to carry out an independent assurance of the sustainability/non-financial disclosures in the Keppel Corporation Sustainability Report 2022 (“Report”), which is available on Keppel’s website and its printed format for the financial year ending 31 December 2022. The intended users of this Assurance Statement are the management of the Company.

We performed a limited level of assurance using DNV’s assurance methodology VeriSustain™<sup>1</sup>, which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements (ISAE) 3000 Revised<sup>2</sup>, along with the Global Reporting Initiative’s (‘GRI’s’) Principles for Defining Report Content and Report Quality. Our assurance engagement was limited to select subject matter and carried out during March 2023 to May 2023.

## Scope and Boundary of Assurance

The scope and boundary of assurance included a review of sustainability related disclosures and performance data from Keppel Corporation and the Company’s operating subsidiaries across the globe based on Keppel’s materiality assessment. Our assurance engagement included limited level of verification of sustainability performance disclosures for the identified material topics of Keppel as detailed under the section ‘Materiality’ and ‘Material Issues’ in the Report i.e., covering entities over which Keppel has operational control. Our verification applies a ±5% uncertainty threshold towards errors and omissions for the performance data brought out in the Report.

## Responsibilities of the Management of Keppel and of the Assurance Provider

The Company’s management has sole responsibility for the integrity of the Report

and this responsibility includes designing, implementing and maintaining internal controls over collection, analysis, aggregation and preparation of data, fair presentation of the information, ensuring that data is free from material misstatement and maintaining the integrity of their website under digital domain. The Board has complete oversight and is responsible for the Company’s sustainability reporting. Keppel has stated that this Report has adopted general disclosures and selected topic-specific disclosures related to identified material sustainability factors.

In performing our assurance work, DNV’s responsibility is solely towards the Management of Keppel in accordance with terms of reference agreed; however, this assurance statement represents our independent opinion and is intended to inform the outcome of the assurance to the Company’s stakeholders. DNV’s responsibility is to form an independent conclusion. In doing so, we carried out the sampling procedures required for the evidence for a limited level of assurance based on VeriSustain i.e., DNV is responsible for planning and performing the engagement to obtain assurance about whether the selected information is free from material misstatement and meets the disclosure requirements.

## Basis of Our Opinion

We planned and performed our work to obtain the evidence considered necessary to provide a basis for our assurance opinion as part of the assurance engagement. We adopted a risk-based approach, i.e., we concentrated our verification efforts on the issues of high material relevance to Keppel and its key stakeholders. A multi-disciplinary team of sustainability and assurance specialists reviewed non-financial disclosures related to the headquarters in Singapore, and selected sites of Keppel based on DNV’s sampling plan. We conducted hybrid audit which included site visits to Keppel Headquarters in Singapore and remote audits over performance data of selected sites (Keppel FELS Ltd.,

Keppel Subic Shipyard, Inc, and M1 Limited). We undertook the following activities:

- Review of the non-financial sustainability-related disclosures (as indicated by “Y” under the ‘External assurance’ column in the GRI Content Index published by Keppel) in this Report;
- Review of the approach to materiality determination and review of outcomes of stakeholder engagement; DNV did not have any direct engagement with external stakeholders;
- Review of information provided to us by the Company on its reporting and management processes related to sustainability performance for the reporting year based on the framework adopted by Keppel;
- Interviews with select members of leadership team, and senior managers responsible for the management of sustainability issues and review of selected evidence to support generic disclosures. We were free to choose interviewees, and interviewed those with overall responsibility for the programmes to deliver the targets for medium- and long-term vision, mission and milestones;
- Performed desk review of selected sustainability parameters for sampled entities, and discussed findings and resolved with the Corporate Sustainability Team;
- Carried out remote assessments with teams at Keppel FELS Ltd., Keppel Subic Shipyard, Inc, and M1 Limited to review the processes and systems for preparing site level sustainability data and implementation of sustainability strategy. We were free to choose the sites for on-site assessment or verification;
- Review of supporting evidence for key claims and data disclosed in the Report. Our verification processes were prioritized based on risk-based approach, i.e., relevance of identified material topics and sustainability context of the business;
- Review of the processes for gathering and consolidating the performance data and, for a sample, checking the data consolidation at site and corporate levels.

<sup>1</sup> The VeriSustain protocol is available on [www.dnv.com](http://www.dnv.com).

<sup>2</sup> Assurance Engagements other than Audits or Reviews of Historical Financial Information.



## Opinion and Observations

On the basis of the assurance engagement undertaken, nothing has come to our attention to suggest that Keppel Corporation's 2022 Sustainability Report does not properly describe the non-financial/sustainability performance of identified material topics based on GRI Standards, for the reporting period. Without affecting our assurance opinion, we also provide the following observations against the principles of VeriSustain™:

### Stakeholder Inclusiveness

*The participation of stakeholders in developing and achieving an accountable and strategic response to Sustainability.*

The Report has brought out key stakeholders (i.e., employees, customers, governments, shareholders and investors, suppliers, and local communities) to engage with, to build trust based on significant influence on Keppel's sustainability performance under 'Stakeholder Engagement' section of the Report. The Report also brings out how Keppel interacts with the key stakeholders on a regular basis through various channels to assess their concerns and respond to them through various disclosures on strategies and value creation in the Report.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Stakeholder Inclusiveness.*

### Materiality

*The process of determining the issues that are most relevant to an organization and its stakeholders.*

The Report highlights Keppel's approach to identifying and ranking the Company's material concerns. This is based on global environmental, social and governance (ESG) standards and considers ESG issues that could result in significant impacts on communities, business partners, workforce and the environment, and the relative influence on stakeholders' assessment and decision making. Keppel engaged an external consultant to conduct a materiality assessment in 2022. The material issues identified were approved by Keppel Corporation Board of Directors.

The material topics have been clustered into seven material ESG factors namely Climate Change and Environmental Management, Corporate Governance and Risk Management, Economic Contribution to Society, Supply Chain Management, Human Capital Management, Health & Safety and Community Development.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Materiality.*

### Responsiveness

*The extent to which an organization responds to stakeholder issues.*

The Report brings out the Company's responses to identified material topics, key challenges faced and significant issues including risks which have arisen during the reporting period through disclosures on Governance, Business Review, strategic responses to key stakeholders' concerns, to deliver shared values. Further the Report also brings out its non-financial performance related to its material topics through selected GRI Topic Specific Standards. The Report may further strengthen on this Principle in future reporting periods by bringing out the long- and medium-term targets towards value creation related to its identified material topics.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Responsiveness.*

### Reliability

*The accuracy and comparability of information presented in the report, as well as the quality of underlying data management systems.*

The majority of the performance disclosures verified through hybrid verification, i.e., at the Head Office and sampled sites, and through desk reviews, were found to be fairly accurate, reliable, identifiable and traceable to the source. Considering the limited sampling, we did not detect any major errors related to data collection or aggregation. We also reviewed the calculations and related assumptions used for its suitability, taking into account the principle of Reliability, however our

procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems. Some of the data inaccuracies identified during the verification process were found to be attributable to interpretation and aggregation errors. These identified errors were communicated, and the responses and corrections made to the reported data and information were reviewed.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Reliability.*

### Completeness

*How much of all the information that has been identified as material to the organization and its stakeholders is reported.*

The Report has disclosed the Company's business model, sustainability strategies, management approach disclosures and sustainability performances against the material topics identified based on selected GRI Standards. The boundary of the Report has been explained across sections in the Report and includes the sustainability performance across global operations, subsidiaries and associated companies over which the Keppel Group has management control for the reporting period.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Completeness.*

### Neutrality

*The extent to which a report provides a balanced account of an organization's performance, delivered in a neutral tone.*

The Report presents disclosures related to the Company's performance, challenges and concerns of stakeholders during the reporting period in a neutral, consistent and balanced manner, applying adequate consideration to not unduly influence stakeholders' opinion made based on the reported data and information.

*Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Neutrality.*

## Independent Assurance Statement



### Limitations

DNV's assurance engagements are based on the assumption that the data and information provided by the Company to us as part of our review have been provided in good faith, are true, and is free from material misstatements. Because of the selected nature (sampling) and other inherent limitations of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. The engagement excludes the sustainability management, performance, and reporting practices of Keppel's suppliers, contractors, and any third parties mentioned in the Report. The Company's position statements (including the Company's claim on carbon neutrality), the statements for the management approach, and case studies and examples are excluded from the scope of our work. We did not interview external stakeholders as part of this assurance engagement.

We understand that the reported financial data and related information are based on statutory disclosures and Audited Financial Statements<sup>1</sup>, which are subject to a separate independent statutory audit

process. We did not review financial disclosures and data as they are not within the scope of our assurance engagement.

The procedures performed in a limited assurance engagement vary in nature and are shorter in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed. During the assurance process, we did not come across limitations to the scope of the agreed assurance engagement.

### Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory

requirements. We have complied with the DNV Code of Conduct<sup>2</sup> during the assurance engagement and maintain independence wherever required by relevant ethical requirements.

This engagement work was carried out by an independent team of sustainability assurance professionals. DNV was not involved in the preparation of any statement or datum included in the Report except for this Assurance Statement. DNV maintains complete impartiality toward internal stakeholders interviewed during the assurance process.

### Purpose and Restriction on Distribution and Use

This assurance statement, including our conclusion has been prepared solely for the Company in accordance with the agreement between us. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company for our work or this report.

<sup>1</sup> 02 March 2023

<sup>2</sup> The DNV Code of Conduct is available from the DNV website ([www.dnv.com](http://www.dnv.com))

For and on behalf of DNV

Nagarajan,  
Sathishkumar

**N Sathishkumar**  
Lead Verifier  
Head, Sustainability Services  
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Singapore Pte. Ltd.

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10 May 2023, Singapore

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Antonio

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# Independent Verification Statement



## Introduction

DNV Business Assurance Singapore Pte. Ltd. ("DNV") has been commissioned by the management of Keppel Corporation Limited ("Keppel", Company Registration Number: 196800351N) to carry out verification of Greenhouse Gases ("GHGs") emissions as part of its sustainability reporting and for the Company's Carbon Disclosure Project ("CDP") response. The verification exercise was carried out for the Company's GHG emissions for the period from 1 January 2022 to 31 December 2022. Keppel is responsible for the collection, analysis, aggregation and presentation of GHG scope 1, 2 and 3 data and information and has adopted operational control approach for selecting the reporting boundary, based on requirements set out in World Resources Institute's GHG Protocols in Keppel's bespoke spreadsheets and UL 360 software.

This verification provides a moderate level of assurance as per DNV VeriSustain™ and applies a ±5% uncertainty threshold towards errors and omissions. Our responsibility of performing this work is to the management of Keppel only and in accordance with terms of reference agreed with the Company. The verification engagement is based on the assumption that the data and information provided to us is complete, sufficient true and free from misstatements. DNV disclaims any liability or co-responsibility for any decision a person or entity would make based on this verification statement. The verification was carried out during March to May 2023 as part of verification of sustainability report disclosures.

## Scope, Boundary and Limitations of Verification

The scope of work agreed upon with Keppel includes the following:

- Verification of the GHG emissions (Scope 1, Scope 2 and Scope 3) in accordance with the requirements of GHG Protocol of WBCSD:
  - The Scope 1 emissions arising from:

- a. diesel consumption in the diesel generating (DG) sets owned or operated by Keppel;
  - b. diesel fuel consumption in owned and leased vehicles of Keppel;
  - c. liquefied petroleum gas consumption;
  - d. naphtha consumption;
  - e. piped natural gas consumption;
  - f. compressed natural gas consumption;
  - g. acetylene consumption; and
  - h. refrigerant loss and top up (R123, R134A, R22, R407C, R410A)
- The Scope 2 emissions arising from use of purchased grid electricity;
  - The Scope 3 emissions arising from purchased goods and services, capital goods, fuel and energy-related activities, upstream and downstream transportation & distribution, waste generated, business travel, employee commute, upstream and downstream leased assets, use of sold products, processing of sold products, End-of-life treatment of sold products, franchises and investments.
- Remote verification to the sampled Keppel facilities;
  - Verification of the Company's protocols, processes, management approach and controls related to the collection and collation of the GHG emission data based on GHG Protocol of WBCSD and UL 360 software.

The organisational boundary as set out by Keppel covers facilities in Singapore, Australia, Brazil, Germany, Hong Kong, United States and the Asia Pacific region, where Keppel has operational control. During the process of verification, we did not come across any limitations to the agreed scope of work.

## Verification Methodology

During the verification engagement, we have taken a risk-based approach,

and we have verified the GHG emissions made in the Sustainability Report and assessed the robustness of the underlying data management system, information flow and controls. We carried out the following activities:

- Desk review of Keppel's reported emissions provided to us in spreadsheets to select sample sites for offsite verification;
- Management interaction to review data management systems of Keppel including review of data completeness, emission factors used, and assumptions applied, diesel consumption in DG sets owned or operated by Keppel and, diesel consumption in owned/leased vehicles, consumption of liquefied petroleum gas, naphtha, piped natural gas, compressed natural gas and acetylene and refrigerant usage for its operations;
- Offsite verification of data aggregation systems and related evidence related to Scope 1 emissions, Scope 2 emissions reported for sample sites i.e. Keppel Shipyard, Saigon Centre and KMEDP; Scope 3 emissions reported for Purchased goods and services, Upstream transportation & distribution, Use of sold products and Investments;
- Review of feedback from Keppel on reported observations arising from offsite verification.

## Conclusion

On the basis of our verification methodology, nothing has come to our attention that would cause us not to believe that the GHG emissions below are not a fair representation of Keppel's GHG Scope 1, Scope 2 and Scope 3 emissions. Some data inaccuracies identified for the sampled sites, during the verification process were found to be attributable to transcription, interpretation and aggregation errors, and the errors have been communicated for correction and corrected by Keppel.

# Independent Verification Statement



## Statement of Competence and Independence

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 – Conformity Assessment Requirements for bodies providing audit and certification of

management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements. We have

complied with the DNV Code of Conduct<sup>1</sup> during the engagement and maintain independence wherever required by relevant ethical requirements.

This engagement work was carried out by an independent team of sustainability professionals. DNV was not involved in the preparation of any statement or datum included in the Report except for this Verification Statement and Assurance Statement on Sustainability Report 2022. DNV maintains complete impartiality toward internal stakeholders interviewed during the verification process.

DNV did not provide any services to Keppel during 2022 that could compromise the independence or impartiality of our work.

## Purpose and Restriction on Distribution and Use

This verification statement, including our conclusion has been prepared solely for the Company in accordance with the agreement between us. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company for our work or this report.

<sup>1</sup> The DNV Code of Conduct is available from DNV website ([www.dnv.com](http://www.dnv.com)).

Scope	Source	Tonnes of CO <sub>2</sub> e Emission (tCO <sub>2</sub> e) for 2022 – Global and Singapore Operations
<b>Scope 1</b>	a. Diesel consumption in the generating sets owned or operated by Keppel; b. Fuel (diesel) consumption in owned and leased vehicles of Keppel; c. Liquefied petroleum gas; d. Naphtha; e. Piped natural gas; f. Compressed natural gas; g. Acetylene; and h. Refrigerant usage – R123, R134A, R22, R407C, R410A.	29,420
<b>Scope 2</b>	Purchased electricity	112,584
<b>Scope 3</b>	Purchased goods and services, capital goods, fuel and energy-related activities, upstream transportation & distribution, waste generated, business travel, employee commute, upstream and downstream leased assets, use of sold products, end-of-life treatment of sold products and investments	6,111,610
<b>Total (Scope 1, Scope 2 and Scope 3 emissions)</b>		<b>6,253,614</b>

For and on behalf of DNV

**Nagarajan,  
Sathishkumar**

**N Sathishkumar**  
Lead Verifier  
Head, Sustainability Services  
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**Sharma,  
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