

Shaping a Sustainable Future

Sustainability Report 2018



Vision

A global company at the forefront of our chosen industries, shaping the future for the benefit of all our stakeholders – Sustaining Growth, Empowering Lives and Nurturing Communities.

Mission

Guided by our operating principles and core values, we will deliver solutions for sustainable urbanisation profitably, safely and responsibly.

Operating Principles

- 1 Best value propositions to customers.
- 2 Tapping and developing best talents from our global workforce.
- 3 Cultivating a spirit of innovation and enterprise.
- 4 Executing our projects well.
- 5 Being financially disciplined to earn best risk-adjusted returns.
- 6 Clarity of focus and operating within our core competence.
- 7 Being prepared for the future.

Contents

Group Overview

Letter to Stakeholders	2
Highlights	5
Sustainability Framework	6
Shaping a Sustainable Future	8
Sustainable Development Goals	9
Group Structure	14
Sustainability Management	15
Materiality	18
United Nations Global Compact	19
Awards & Recognition	21

Sustaining Growth

Economic Sustainability	22
Corporate Governance	26
Risk Management	33
Regulatory Compliance	37
Environmental Management	39
Suppliers	48
Product Excellence	51

Empowering Lives

Safety & Health	56
Labour Practices & Human Rights	64

Nurturing Communities

Communities	72
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Other Information

About this Report	84
Global Reporting Initiative (GRI) Content Index	85
Independent Assurance Statement	89
LBG Assurance Statement 2018	91
Key Personnel	92

Shaping a Sustainable Future

Keppel is a multi-business company committed to providing robust solutions for sustainable urbanisation. Focused on being at the forefront of our chosen industries, we are sharpening our competitive edge and developing new platforms for growth, while placing sustainability at the heart of our strategy and operations.

Letter to Stakeholders

GRI 102-14

Channelling our capabilities to shape a more sustainable future aligned with the UN SDGs, while harnessing the business and investment opportunities that these create, are at the core of the Keppel Group's strategy and how we see ourselves contributing to a better world.

Dear Stakeholders,

Sustainable Solutions for an Urbanising World

Urbanisation is one of the most significant development trends facing the world today.

With more than half the world's population living in cities, a proportion that is expected to increase to 68% by 2050¹, the 2030 Agenda for Sustainable Development acknowledges the importance of sustainable urban development and management. The United Nations Sustainable Development Goals (UN SDGs) have even included a dedicated goal on sustainable cities and communities. Comprehensive planning to support growing populations, as well as solutions to confront the environmental impact of urban growth, are needed to make the world's urban spaces safer, more inclusive, resilient and sustainable.

Keppel is a multi-business company driven by a common purpose to provide solutions for sustainable urbanisation. Beyond the sustainable practices adopted across our businesses, we see sustainability as a business – whether it is providing access to cleaner sources of energy, building and operating water treatment or waste-to-energy plants, planning and building sustainable cities, or providing green data centres and logistics operations. Channelling our capabilities to shape a more sustainable future aligned with the UN SDGs, while harnessing the business and investment opportunities that these create, are at the core of the Keppel Group's strategy and how we see ourselves contributing to a better world.

Strengthening Governance Frameworks

Keppel carefully considers environmental, social and governance (ESG) issues in all our strategic and investment decisions.

Integrity is a core value for Keppel. We care dearly about how results are achieved, not just that they are attained. Instilling this core value into every employee and enhancing our regulatory compliance are thus key priorities for the board and management of the company.

During the year, Keppel Offshore & Marine (Keppel O&M) carried out a risk review and audit of anti-corruption compliance. In November, Keppel O&M's entities in Singapore achieved certification for the ISO 37001 Anti-Bribery Management System. We will continue to work towards certification for the other entities within Keppel O&M and the Group. The Group is committed to putting in place effective and robust compliance and governance regimes and honour the undertakings given as part of the 2017 global resolution involving Keppel O&M.

As part of the steps taken to enhance our internal controls, policies and procedures, Keppel Corporation has engaged KPMG to provide an independent platform for employees and external parties, such as customers, suppliers and contractors, to raise concerns about any perceived irregularity or misconduct. We have also enhanced reporting channels and increased the geographical coverage for whistle-blower hotlines to include 10 countries, including Brazil, China, Vietnam and the US.

We will continue to strengthen our policies and procedures and ensure that we win business legally and ethically, based on the strengths of the Group and the quality of our solutions.

Managing Resources, Responsibly

The Paris Agreement adopted in 2015 was an essential step to address climate change. Last December, at the UN Climate Change Conference COP24 in Katowice, governments adopted an action plan, which sets out the guidelines for countries to make emission cuts under national climate plans.

We are committed to support efforts by the international community and the Singapore government to tackle climate change. We continued to undertake initiatives to promote greater environmental responsibility and encourage the development and diffusion of environmentally friendly technologies.

Keppel Corporation made a public climate action pledge with the Singapore Ministry of the Environment and Water Resources in 2018 to factor in environmental considerations in our businesses, invest in green technology, and optimise our operations to enhance energy efficiency. In 2014, we set the goal of achieving a 16% improvement in carbon emissions intensity from 2020 business-as-usual levels. In 2018, we established a longer term target to achieve a 28.8% reduction in carbon emissions intensity by 2030, from 2010 levels. Both targets were set based on the national targets announced by the Singapore Government in 2009 and 2015 respectively.

As at end-2018, our operations in Singapore and overseas have achieved a 24% average reduction in carbon emissions intensity from our 2010 baseline. We are on track to achieving Keppel's 2020 target, and will continue to work steadily towards our 2030 target.

Energy efficiency initiatives implemented across the Group in 2018, including Keppel Land's Green Mark-certified developments, are estimated to have saved 812,134 GJ of energy, equivalent to 9% of the Group's total energy consumption, during the year. This translates to an estimated \$55 million in cost savings, and an avoidance of



Loh Chin Hua
Chief Executive Officer

approximately 95,000 tonnes of carbon dioxide emissions. Cumulatively, the Group has saved over 3 million GJ of energy over the past five years, which translates to a total of about \$188 million in cost savings, and an avoidance of over 360,000 tonnes of carbon dioxide emissions over this period.

In collaboration with the Singapore Building and Construction Authority (BCA), we will be incorporating five new and emerging energy efficient technologies in Keppel Bay Tower, where the headquarters of the Keppel Group is based. The technologies that will be piloted include a high efficiency air distribution system, a revolutionary cooling tower water management system, and an intelligent building control system. This will be the first time that any of these technologies are implemented in a development in Singapore. When the project is completed in 2020, we expect to improve the annual energy consumption of Keppel Bay Tower by 20%. We are also working to certify the building under BCA's new Green Mark for super low energy buildings.

The Group continued to promote the use of renewable energy in our different businesses.

Keppel O&M and Keppel Infrastructure are collaborating on a solar leasing project at Keppel O&M's yards, where the renewable energy generated is helping to offset the yards' energy requirements. The solar panels at Keppel O&M's yard have an installed capacity of 5.2 MWp, and solar panels are progressively being installed. In addition, a portion of the renewable energy certificates generated through this initiative is being transferred to Keppel Corporation, allowing the corporate office at Keppel Bay Tower to be fully powered by clean energy from the end of 2018 through the retirement of these certificates².

Fostering Safe & Productive Employment

Our people are our most valuable resource. We respect and uphold labour and human rights principles, adhere to fair employment practices, and are committed to nurture and empower a diverse, competent and dedicated talent pool to drive Keppel's further growth. This year, we invested over 500,000 hours training and developing our global talent pool, and leveraged digital platforms for faster and better reach. We seek to create a conducive workplace where employees can

¹ Revision of World Urbanisation Prospects (2018), Population Division of the UN Department of Economic and Social Affairs.

² The renewable energy certificates allocated to Keppel Corporation's corporate office for the period starting December 2018 will be retired in July 2019.

Letter to Stakeholders

explore, develop and fulfil their professional aspirations, and at the same time help Keppel achieve its mission to provide solutions for sustainable urbanisation.

Keppel has a robust Health, Safety and Environment Policy, which all our employees and suppliers are expected to abide by. While we have made good progress in our safety journey, sadly, we suffered one fatality of a contractor in 2018. The incident was associated with steel fabrication works in one of our Singapore shipyards. We are deeply saddened by the loss and have thoroughly investigated the root causes of the incident. We will continue to strengthen efforts in our safety journey to ensure that Keppelites, as well as those who work on our premises, are able to go home safe every day.

Suppliers of Keppel Group companies are expected to abide by the Keppel Group's supplier code of conduct, which covers areas pertaining to business conduct, environmental management, labour practices, as well as safety and health. In 2018, all new suppliers were screened in accordance with environmental, social and governance criteria, and 99.8% of qualified suppliers signed the Code or have their own codes which met Keppel's requirements.

Investing in Our Communities

Wherever we operate, we aim to invest in the long-term economic and social well-being of our communities, be it through working with the underprivileged, promoting education or caring for the environment.

Keppel Volunteers clocked over 14,000 hours of volunteer work in 2018, and brought cheer to more than 2,600 beneficiaries. Our outreach efforts have positively touched lives not only in Singapore, but in China, Vietnam, Indonesia and Brazil, among other countries where we operate. I would like to acknowledge and thank all our volunteers for their dedication, as well as partners and Keppel alumni members who also contributed to the efforts.

In partnership with organisations that share our values, we commit up to 1% of the Group's net profit to worthy social and environmental causes. These contributions are coordinated and disbursed by Keppel Care Foundation, the Group's philanthropic arm. The Foundation has disbursed over \$36 million to worthy causes since its launch in 2012.

In 2018, we made a \$1 million donation to the President's Challenge in Singapore to support over 50 social service organisations that provide programmes to support the vulnerable in society. We also committed \$10 million to the Institute of Technical Education to promote education for

financially-disadvantaged students, and RMB 5 million to the China Foundation for Poverty Alleviation to support projects to benefit impoverished communities in China. Beyond Singapore and China, Keppel also supports various literacy and skills training programmes in Brazil, the Philippines and Vietnam to benefit less privileged children and youth.

In recognition of our corporate giving efforts, Keppel was conferred the title Champion of Good by the National Volunteer & Philanthropy Centre in Singapore in 2018.

Communicating on Progress

Keppel Corporation is a signatory of the UN Global Compact, the world's largest corporate sustainability initiative to mobilise a global movement of sustainable companies. We reaffirm our support of the Global Compact's 10 principles on human rights, labour, environment and anti-corruption, which resonate strongly with our own core values. In this report, which is also our first annual Communication on Progress, we have described our actions to integrate the principles into our business strategy, culture and daily operations.

Shaping a Better Tomorrow

We are encouraged that our sustainability efforts have been internationally recognised. In 2018, Keppel continued to be recognised in Singapore and internationally for our sustainability efforts and reporting. Keppel Corporation was the winner of the UN SDGs category at the Sustainable Business Awards. Keppel Corporation has also continued to be listed on various sustainability indices and rankings, including the MSCI World ESG Leaders Index, Euronext Vigeo Eiris Index – World 120, as well as the iEdge SG ESG Leaders Index and iEdge SG ESG Transparency Index by the Singapore Exchange.

As we execute our businesses, we will actively explore new opportunities and build future growth engines which harness the Group's collective strengths and capabilities, and augment our mission as a provider of solutions for sustainable urbanisation. We will also continue to strengthen collaboration with partners to make a meaningful impact to society, and create value for our stakeholders as we shape a sustainable future.



Loh Chin Hua
Chief Executive Officer
23 April 2019

Highlights



Accolades

Conferred the Sustainable Business Award 2018 in the United Nations Sustainable Development Goals category.



Sustainability Benchmarks

Top 10

Constituent of the iEdge SG ESG Leaders Index and the iEdge SG ESG Transparency Index by the Singapore Exchange in 2018.



Economic Value

\$7.1b

Of economic value generated for our stakeholders.



Sustainability Innovation

27%

Of R&D expenditure invested in sustainability-linked innovation.



Energy Savings

\$55m

In estimated cost savings from energy efficiency initiatives implemented in 2018 and from Keppel Land's Green Mark-certified developments.



Water Recycling

29%

Of our water consumed in Singapore is water recycled by the Group.



Carbon Emissions

24%

In average reduction in emissions intensity from our 2010 baseline.



Suppliers

100%

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



Safety

>200

Safety leadership coaching programmes held globally to train and empower frontline managers.



Training & Development

27.1hrs

Of training per employee globally.



Social Investments

\$8.9m

Invested in social causes in 2018.



Volunteerism

>14,000hrs

Of community work achieved by Keppel Volunteers, touching the lives of over 2,600 beneficiaries.

Sustainability Framework

GRI 102-16

Keppel provides robust solutions for sustainable urbanisation, to meet the world's needs for energy, infrastructure, clean environments, high quality homes and offices, and connectivity.

OUR BUSINESS ENGINES | HOW WE CREATE VALUE

OUR BUSINESS ENGINES

Keppel provides solutions for sustainable urbanisation, with key businesses in Offshore & Marine, Property, Infrastructure and Investments.

Our businesses collaborate to offer a spectrum of innovative and sustainable solutions for urbanisation.

Energy
We support the safe and efficient harvesting of energy sources to power the world's needs.

Urban Living
We shape skylines and lives through vibrant and sustainable urban developments.

Clean Environments
We green cities with solutions for waste, water and urban climate control.

Connectivity
We connect people and businesses with information, goods and services in an increasingly digital economy.

Asset Management
We create enduring value with quality investment products and platforms.

Read more about how our businesses contribute to the Sustainable Development Goals on pages 9 to 13.

HOW WE CREATE VALUE

OUR STRATEGY

Our approach to sustainability starts with our goal to run a profitable, safe and responsible business providing the best value proposition to customers, while guided by our core values and operating principles.

The company's sustainability strategy is guided by the three thrusts of Sustaining Growth, Empowering Lives and Nurturing Communities.

Sustaining Growth
We integrate sustainability principles in our business strategies and operations, and regard sustainable development both as a corporate responsibility and a source of business opportunities.
We are focused on strong corporate governance, prudent risk management and resource efficiency.

Empowering Lives
People are the cornerstone of our businesses.
We are committed to grow and nurture our talent pool through training and development to help our people reach their full potential.
With safety as one of our core values, we are committed to providing a safe and healthy workplace for all our stakeholders.

Nurturing Communities
As a global citizen, Keppel believes that as communities thrive, we thrive.
We engage and nurture communities wherever we operate, with the goal of shaping a sustainable future together.

MATERIALITY APPROACH

Material issues affect our ability to create value in the long term, and influence the decisions of our stakeholders.

Process
A robust process was undertaken to identify and prioritise Keppel Corporation's material environmental, social and governance (ESG) issues. The process was supported by an independent consultant and involved stakeholder consultations, workshops for senior management, an assessment of long-term global trends and an internal review of our businesses. The material ESG issues for Keppel Corporation were reviewed in 2018 and deemed to remain relevant.

Read more about our materiality process on page 18.

Keppel Corporation Material Issues

- | | |
|---|--|
| <p>Tier 1: Issues of Critical Importance</p> <ul style="list-style-type: none"> • Corporate governance • Economic sustainability • Safety and health • Product excellence • Environmental performance | <p>Tier 2: Issues of High Importance</p> <ul style="list-style-type: none"> • Labour practices and human rights • Community development • Supply chain and responsible procurement |
|---|--|

We are committed to sustainability, and consider environmental, social and governance issues in the determination of our strategy and policies. Our approach to sustainability starts with our goal to run a profitable, safe and responsible business providing the best value

proposition to customers, making a difference to the wider community, and contributing to a sustainable future.

Keppel Corporation is a signatory of the United Nations (UN) Global Compact, and we are committed to the Compact's

10 universal principles. We are also committed to working towards the achievement of the Sustainable Development Goals, and have incorporated 10 of the goals as a supporting framework to guide our sustainability strategy.







MANAGEMENT STRUCTURE

The Keppel Corporation Board of Directors and management regularly review as well as oversee the management and monitoring of the material ESG factors of the Company.

The Group Sustainability Steering Committee, chaired by Keppel Corporation's Chief Executive Officer Loh Chin Hua and comprising senior management from across the Group, provides guidance on the Group's sustainability strategy while the Group Sustainability Working Committee, comprising discipline-specific working groups, executes, monitors and reports on the Group's efforts.

Our management systems, policies and guidelines, including our Employee Code of Conduct; Health, Safety and Environment Policy, and Supplier Code of Conduct, translate our principles into practice by setting standards both for our Company and those whom we work with.

OUR STAKEHOLDERS

-  **Employees**
-  **Customers**
-  **Governments**
-  **Shareholders & Investors**
-  **Suppliers**
-  **Local Communities**

GOVERNANCE

Strong Governance Framework
Keppel is focused on upholding high standards of corporate governance. We have a strong and independent board, and are committed to good business ethics. We maintain clear, consistent and regular communication with shareholders.

Keppel's System of Management Controls Framework
The Framework outlines the Group's internal control and risk management processes and procedures. The Framework comprises three Lines of Defence towards ensuring the adequacy and effectiveness of the Group's system of internal controls and risk management.

Core Values and Operating Principles
Keppel's core values of integrity, accountability, people-centredness, safety, among others, along with our operating principles, guide management and staff in the conduct of our businesses.

Risk-Centric Culture
Effective risk management hinges not only on systems and processes, but equally on mindsets and attitudes. The Group fosters a risk-centric culture that enables us to continue to respond effectively to the dynamic business environment, shifting business demands and to seize new value-added opportunities for our stakeholders.

Read more about our approach to governance and risk management on pages 26 to 38.

MEASURING PERFORMANCE

Balanced Scorecard
The Company's balanced scorecard aligns compensation with corporate and individual performance, both in terms of financial and non-financial performance.

There are four scorecard areas that the Company has identified as key to measuring the performance of the Group:

1. Financial and Business Drivers;
2. Process;
3. Stakeholders; and
4. People.

Some of the key sub-targets within each of the scorecard areas include key financial indicators, safety goals, risk management, compliance and controls measures, sustainability efforts, employee engagement, talent development and succession planning.

The four scorecard areas have been chosen because they support how the Group achieves its strategic objectives. The framework provides a link for staff to understand how they contribute to each area of the scorecard, and therefore to the Company's overall strategic goals. This is designed to achieve a consistent approach and understanding across the Group.

Shaping a Sustainable Future

GRI 102-2 | 102-6 | 102-7 | 102-15

Keppel is committed to sustainability, both as a responsible corporate citizen and as a provider of solutions that contribute to a more sustainable world.

Our businesses collaborate to offer a spectrum of innovative and sustainable solutions for urbanisation.

Strengthening Key Verticals

We have undertaken strategic initiatives to stay relevant, unlock new opportunities and drive growth in a fast-changing landscape. Our Offshore & Marine Division, for instance, has been re-positioned as an offshore energy and infrastructure solutions provider, expanding its markets beyond the oil drilling sector. In 2018, we secured Liquefied Natural Gas and scrubber projects worth over \$600 million. With the successful deployment of the world's first converted Floating LNG (FLNG) vessel, Hilli Episeyo, we have demonstrated that converted FLNG solutions can be a quick and cost-efficient way of monetising stranded gas reserves.

At the same time, Keppel Land is continuing its transformation to be a multi-dimensional real estate company, with one of the highest rates of return in Asia. Keppel Infrastructure is seeking value-enhancing projects, leveraging its project development, engineering, and operations and maintenance capabilities, while Keppel Telecommunications & Transportation is scaling up its logistics and data centre businesses. Keppel Capital is also seeking long term growth, including expanding into new markets and asset classes, focusing on areas which harness the capabilities of the Keppel Group.



Seizing New Opportunities

Urbanisation trends present many exciting and interconnected opportunities for Keppel, whether it is providing energy, property, environmental solutions or connectivity. With a view to developing future growth engines, we are actively exploring and investing in new businesses such as senior living and renewable energy infrastructure. We are also expanding our presence in consumer businesses including electricity retail, urban logistics and telecommunications. In Singapore, Keppel Electric became the second largest electricity retailer after SP Services in 2018. In addition, Keppel Corporation, together with Singapore Press Holdings, have privatised M1, and are driving business changes that will enable M1 to compete more effectively in the telecommunications industry.



Unleashing Synergies

Our businesses are collaborating with one another to seize opportunities with the common purpose of providing solutions for sustainable urbanisation. Keppel Urban Solutions (KUS) for example, brings together the Group's capabilities and track record in energy, property, infrastructure and connectivity to create smart, sustainable urban townships. KUS is working with Keppel Land to develop the 64-hectare Saigon Sports City in Ho Chi Minh City, Vietnam. By working together as a group, we can enhance the value of our landbank and real estate, as well as enjoy multiple income streams from developing and managing properties and infrastructure, and providing a host of high quality urban services.



Sustainable Development Goals

GRI 102-2 | 102-6 | 102-7 | 102-12 | 102-15

Keppel is committed to the international community's sustainable development agenda, and will leverage collaboration and partnership to support the global goals.

Keppel believes that businesses can play an important role in contributing to the achievement of the Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development. We firmly believe that a company that is aligned with the global sustainable development agenda can not only enhance its social licence to operate, but also improve the sustainability, efficiency and competitiveness of its business.

Having reviewed how our different businesses can contribute to each of the SDGs, we have incorporated the goals, where appropriate, as a supporting framework to shape and guide our sustainability strategy. In this report, we share how different activities of the Keppel Group contribute towards ten of these goals.

Sustainable Urbanisation

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. Projections show that urbanisation, rural-urban migration, combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa¹.

With more and more people making cities their home, sustainable development depends increasingly on the successful management of urban growth. Understanding the key trends in urbanisation that are likely to unfold over the coming years is crucial to the implementation of the SDGs. Many countries will face challenges in meeting the needs of their growing urban populations, including for housing, transportation, energy systems and other infrastructure.

Keppel's suite of solutions for energy, urban living, clean environments and connectivity can help countries maintain a balance between the trend of rapid urbanisation and the focus on sustainability.



Energy

The demand for energy will grow as cities continue to undergo urbanisation. Solutions in our energy portfolio focus on enhancing access to energy. With climate change as a growing international concern, demand for cleaner sources of energy such as Liquefied Natural Gas (LNG) is expected to rise. LNG is considered to be one of the safest and cleanest fossil fuels available, and offers significant potential for industries to reduce greenhouse gas emissions. With a view to developing future growth engines, Keppel is actively exploring and investing in new businesses such as renewable energy infrastructure.

As one of the world's leaders in LNG vessel repair, Keppel Offshore & Marine (Keppel O&M) has built up critical knowledge for handling materials at extremely low temperatures. This experience, coupled with a strong track record in oil and gas projects, has enabled Keppel to achieve many firsts in the delivery of LNG solutions. Hilli Episeyo, the world's first converted FLNG vessel which Keppel O&M delivered in late 2017, has maintained 100% uptime since beginning commercial operations. Hilli's successful proof of concept as a quick and cost-efficient solution for monetising stranded gas reserves continues to add momentum to new opportunities in the liquefaction vessel space. Keppel O&M has since received the final notice to proceed on a second FLNG conversion project – the Gimi FLNG. The Gimi FLNG is slated to support the Greater Tortue/Ahmeyim project located offshore West Africa.

Our ability to offer end-to-end solutions has also primed Keppel to meet rising demand for LNG in archipelagic markets unserved by gas pipelines. Keppel O&M has seen continued demand for LNG related solutions such as LNG carriers and dual-fuel tugs. In 2018, Keppel O&M secured over \$600 million worth of LNG and scrubber projects.

Keppel Infrastructure's Energy Infrastructure Division provides competitive energy solutions and services across the natural gas value chain through its subsidiaries Keppel Merlimau Cogen, Keppel Electric, Keppel Gas, Pipenet and Keppel DHCS. The Keppel Merlimau Cogen plant uses natural gas to generate electricity. Gas-fired plants have significantly lower carbon emissions than oil-fired steam plants.

In Singapore, Keppel Electric became the second largest electricity retailer after SP Services, with a 13.9% market share².

During the year, Keppel DHCS clinched a contract for the initial design phase of a new district cooling services (DCS) plant in the upcoming Jurong Innovation District in Singapore. Contingent upon approval by JTC Corporation, there may be a subsequent phase of the contract to build, own and operate a DCS plant, with a capacity of up to 14,000 refrigeration tonnes (RT), on a 30-year contract term. With the aggregate installed capacity across major business and industrial parks projected to increase to 74,000 RT, Keppel DHCS remains the largest DCS provider in Singapore.

Separately, under a research grant awarded by the Energy Market Authority in Singapore, Keppel DHCS and the National University of Singapore are jointly developing novel heat transfer materials for DCS. If successful, the new technology would not only improve energy efficiency by as much as five times but could also result in space savings of the same magnitude. The project is expected to be completed by 2021.

¹ Revision of World Urbanisation Prospects (2018), Population Division of the UN Department of Economic and Social Affairs (UN DESA).

² National Electricity Market of Singapore: Market Report 2018, Energy Market Company.

Sustainable Development Goals



Urban Living

Buildings play a dominant role in the clean energy transition. The construction and operations of buildings accounted for 36% of global final energy use and nearly 40% of energy-related carbon dioxide emissions. Final energy demand in buildings has risen significantly with the impact from the growth in floor area and population outpacing the impact of energy efficiency improvements³. The rapid deployment of energy-efficient and low-carbon solutions for buildings and construction can help put the world on a sustainable trajectory.

In line with our mission of providing solutions for sustainable urbanisation, the Group considers environmental factors during the planning and design of our property developments, data centres and warehouses, as well as during their operational phases.

As one of Asia's premier property companies, Keppel Land is focused on developing properties that harmonise with the environment, and adopts a holistic and proactive approach towards environmental management. As a leading green developer, Keppel Land has set the benchmark⁴ for all new Singapore developments and overseas commercial projects to be certified to the Building and Construction Authority of Singapore's (BCA) Green Mark Gold^{PLUS} standard, or its equivalent, and for all overseas residential developments to be certified to the BCA Green Mark Gold standard, or its equivalent. All newly acquired completed commercial buildings are also to be certified to the BCA Green Mark Gold standard, or its equivalent, within two years. The company has garnered a total of 83 BCA Green Mark Awards to date.

In collaboration with BCA, Keppel Land will be incorporating five new and emerging energy-efficient technologies in Keppel Bay Tower, where the headquarters of Keppel Corporation is based. When implemented in 2020, this will allow Keppel Bay Tower to yield estimated overall annual energy savings of approximately 1.5 million kWh, equivalent to the amount of energy required to power more than 250 five-room HDB flats in Singapore for one year.

[Read more about our efforts to factor in sustainability considerations into our solutions and operations on pages 40 to 47.](#)

Sino-Singapore Tianjin Eco-City

The Keppel Group leads the Singapore Consortium in the development of the Eco-City. This is a high-level project between the governments of Singapore and China to develop a sustainable city which can be a model for sustainable urbanisation in other Chinese cities.

Since the groundbreaking in 2008, the Eco-City has been transformed from a barren, saline and alkaline site to an emerging green city, where over 100,000 people live and work. The Eco-City was named China's first National Green Development Demonstration Zone, first Integrated Smart-Grid Demonstration Zone and a National Green Building Base.

Keppel has been participating actively in and contributing to the Eco-City's development. Keppel Land's eco-friendly homes have been well-received by the market. To date, Keppel has launched about 4,500 units of homes in the Eco-City, of which about 98% have been sold as at end-2018. In 2018, Keppel secured a 10.97-hectare residential site in the Eco-City for a total consideration of RMB 1.07 billion (approximately \$214 million). The new site will be developed into an eco-community comprising 392 units of terrace houses and 180 units of low-rise apartments. The project is expected to be launched in 4Q 2019.

Past:
The site chosen for the Tianjin Eco-City was saline and alkaline land lacking in fresh water.



Present:
The Tianjin Eco-City is now one of China's best-known sustainable urban developments.





Clean Environments

In 2018, the world's cities generated over 2 billion tonnes of solid waste, amounting to a footprint of 0.74 kilogrammes per person per day. With rapid population growth and urbanisation, annual waste generation is expected to increase by 70% to 3.40 billion tonnes by 2050⁵.

Residents in developing countries are more severely impacted by unsustainably managed waste. In some countries, over 90% of waste is often disposed in unregulated dumps or openly burned. These practices create serious health, safety, and environmental consequences. Poorly managed waste serves as a breeding ground for disease vectors and contributes to global climate change through methane generation. Managing waste properly is essential for building sustainable and liveable cities.

Keppel Infrastructure taps the advanced technology solutions of its subsidiary, Keppel Seghers, to address a wide spectrum of environmental issues in solid waste and wastewater management. With a strong track record in implementing water and waste management projects in Europe, North and South America, Asia Pacific, Africa and the Middle East, Keppel is well-positioned to meet the challenges of building a cleaner world.

Waste-to-energy (WTE) plants by Keppel generate green energy from waste and help in landfill diversion by as much as 90% through reduction in the volume of waste disposed. We have implemented our proven and patented WTE technologies in more than 100 state-of-the-art facilities around the world.

Keppel's advanced water solutions cover the full water cycle, including wastewater treatment, process and drinking water, desalination and water reuse. We have implemented more than 350 water and wastewater treatment projects globally to date. Keppel has designed, built and is now operating two landmark projects that serve the environmental needs of Qatar – the Doha North Sewage Treatment Works, which recycles wastewater and treats sludge for agricultural reuse, and the Domestic Solid Waste Management Centre, which treats municipal waste to generate green energy.

In 2018, Keppel Seghers expanded its track record as a choice provider of WTE technology and services, and its geographical reach. In China, Keppel Seghers secured a contract to provide WTE technology and services for a project in Xian, Shaanxi Province. With this, Keppel is currently executing nine technology package projects with a total incineration capacity of over 15,000 tonnes per day in China. Keppel Seghers will also supply technology and services worth over €70 million for Australia's first WTE plant in Kwinana. When completed in 2021, the facility, which utilises Keppel Seghers' proprietary technology, can reduce the volume of waste for landfills by over 90% and export about 36 megawatts of green electricity to the grid. Meanwhile, engineering design work is progressing well for Phase 1 of the Hong Kong Integrated Waste Management Facility, the first waste-to-energy facility for Hong Kong, with key procurement and prefabrication works expected to commence in 2019 alongside ground preparation for reclamation works.

The Keppel Marina East Desalination Plant in Singapore is on track for completion in 2020 and will help bolster the country's water supply resilience. The plant is able to treat both seawater and freshwater, and is Singapore's first large-scale dual-mode desalination plant.



Connectivity

Keppel Telecommunications & Transportation (Keppel T&T) continues to focus on energy efficiency and reliability in its data centre portfolio of 22 data centres across 14 cities in Asia Pacific and Europe. The company's data centre facilities in Singapore are certified with the Singapore Standard for Green Data Centres, and utilise a host of energy-efficient solutions to improve power usage effectiveness. In the Logistics business, the company continues to harness technology, such as enhanced route planning, to minimise travelling distance and reduce fuel wastage.

Keppel T&T is also pursuing innovative new solutions in collaboration with other business units in the Group, including floating data centre parks and high-rise green data centres, which may also incorporate cold energy harvesting facilities.

In September 2018, Keppel Corporation announced a major strategic initiative, in collaboration with Singapore Press Holdings (SPH), to gain majority control of M1, in order to drive business changes that will enable M1 to compete more effectively in the telecommunications industry. The voluntary conditional general offer for M1 turned unconditional in February 2019, with the joint venture company, Konnectivity, and its concert parties achieving majority control of M1. On 16 April 2019, due to the strong support from M1's shareholders, Konnectivity exercised its rights to compulsorily acquire all the shares of shareholders who have not accepted the offer. M1 complements Keppel's mission as a solutions provider for sustainable urbanisation, which includes connectivity, and can serve as a digital platform and connectivity partner to complement and augment Keppel's current suite of solutions.



Asset Management

As an integrated asset manager, Keppel Capital continues to play a key role in collaborating with other business units to create real assets from the spectrum of solutions offered by the Group. Keppel Capital will continue to pursue opportunities to grow its assets under management, boosting the Group's funding capabilities and expanding its capital base. Leveraging the Group's core competencies, Keppel Capital will continue to create innovative investment solutions and connect investors with high-quality real assets in fast-growing sectors fuelled by urbanisation trends.

In 2018, Keppel Capital made headway in the investments into alternative asset classes, including senior living and education real estate sectors. Population ageing, especially in urban societies, will be one of the most significant social transformations of the twenty-first century, with wide-ranging implications on many sectors. Keppel's announced acquisition of a stake in a leading US senior living operator is a strategic move to enter this new growth sector and also bring customised solutions to Singapore and other markets in Asia.

³ Global Status Report: towards a zero-emission, efficient and resilient buildings and construction sector (2018), International Energy Agency and the United Nations Environment Programme.

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

⁵ What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050 (2018). Urban Development Series. Washington, DC: World Bank.

Sustainable Development Goals



Valuing Our People

Our businesses spark economic growth, productivity and jobs. In 2018, Keppel's businesses generated over \$7 billion in economic value. This includes revenue, interest and investment income, and disposal gains. \$988 million was paid out in employee wages and benefits, and \$135 million was paid to governments in the form of taxes.

Some 18,000 people in over 20 countries work at Keppel. They are supported by an inclusive culture that allows them to maximise their potential. Our hiring policies ensure equal employment opportunities for all. Our stance on diversity and inclusion is articulated in our corporate statement on diversity and inclusion, which was formalised in early 2019, and is publicly available online.

We are committed to nurture human capital, and make investments to equip our employees with up-to-date skills and certifications. We also partner government bodies and educational institutions on initiatives targeted at grooming young talents.

[▶ Read more about our training and development initiatives for staff on pages 68 and 69.](#)



Occupational Safety & Health

Safety is a core value at Keppel, and an integral part of our business. We are committed to provide a safe and healthy workplace for all our stakeholders, and focus on strengthening our frameworks and management systems as well as promoting a culture of safety ownership across our operations.

In 2018, we invested approximately \$26 million in enhancing safety infrastructure, upgrading systems and building knowledge and skillsets across the Group. We also support national and industry-related initiatives to raise safety standards, and members of Keppel's management team sit on various committees of the Workplace Safety and Health Council and related industry associations.

Over 200 safety leadership coaching programmes were conducted globally in 2018 to train and empower frontline and senior managers. The Group also rolled out its Incident Investigation and Root Cause Analysis training programme in Singapore in 2018 as part of ongoing efforts to harmonise safety systems and processes across our global operations.

The Keppel Safety Training Centre at Keppel Shipyard in Singapore offers a complete range of safety training and certification courses in both trade specific and broad-based skills for all levels of the workforce. In Brazil, BrasFELS opened a new health, safety and environment Training Centre in 2018. The Centre is equipped with two auditoriums, a classroom for practical safety trainings and a showroom. Keppel Land's Safety Awareness Centres in Ho Chi Minh City, Vietnam; Johor Bahru, Malaysia; Jakarta, Indonesia and Tianjin, China, provide mandatory training for contractors' employees and foster a culture of safety across Keppel Land's supply chain. In 2018, Keppel Land launched a mobile centre in Wuxi, China, which will serve three sites.

[▶ Read more about our efforts to establish a strong culture of safety at our workplaces on pages 57 to 63.](#)



Ensuring Compliance

Guided by our core values and enhanced code of conduct, we are fully committed to ensuring that compliance is a central pillar of our management and an integral part of our corporate culture and business processes. We remain focused on ensuring consistency in application and operational effectiveness of the compliance programme across the Group.

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

Keppel is committed to putting in place effective and robust compliance and governance regimes. As part of ongoing efforts to strengthen its compliance controls, Keppel O&M executed a review and audit of its anti-corruption compliance. In November 2018, Keppel O&M's entities in Singapore achieved certification for the ISO 37001 Anti-Bribery Management System. We will continue to work towards certification for the other entities within Keppel O&M and the Group.

[▶ Read more about our regulatory compliance practices on pages 37 and 38.](#)

Supporting the SDGs

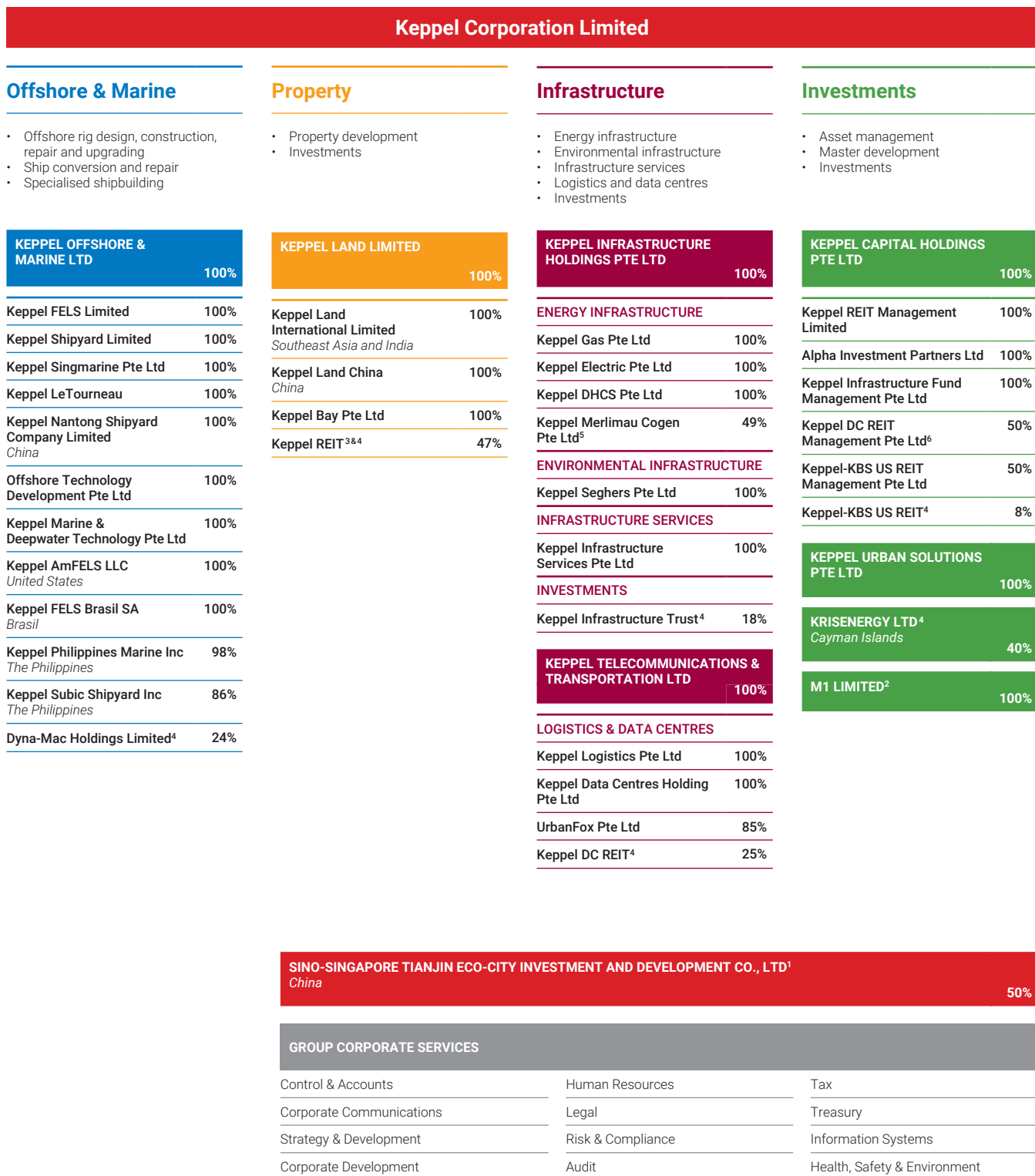
GRI 102-12

Keppel firmly believes that a company that is aligned with the global sustainable development agenda can not only enhance its social licence to operate, but also improve the sustainability, efficiency and competitiveness of its business. We have incorporated the Sustainable Development Goals, where appropriate, as a supporting framework to shape and guide our sustainability strategy.

Keppel's Sustainability Thrusts	Related Material Issues	Related SDGs	Approach
Sustaining Growth	Environmental performance		Our advanced technology solutions address a wide spectrum of environmental issues in solid waste and wastewater management, as well as seawater and freshwater treatment to bolster water supply resilience.
	Product excellence		We enhance access to energy with our diverse portfolio of solutions. Our delivery of the world's first Floating Liquefied Natural Gas vessel conversion puts us ahead of the curve as a leading provider of floating liquefaction solutions.
	Economic sustainability/ Product excellence		Our businesses help promote sustainable urbanisation. We offer solutions for property, infrastructure, technology and services that optimise urban systems and contribute towards resilient, green and liveable cities.
	Environmental performance/ Supply chain and responsible procurement		We are focused on achieving sustainable management and efficient use of natural resources. We aim to reduce waste generation through resource efficiency, recycling, and reuse of natural resources.
	Environmental performance		We are committed to minimising our environmental impact. To support the climate change agenda, we have set a target of achieving a 28.8% reduction in carbon emissions intensity by 2030 from 2010 levels, in addition to the target of achieving a 16% improvement in carbon emissions from 2020 business-as-usual levels.
	Corporate governance		We will conduct ourselves according to the highest ethical standards and comply with all applicable laws and regulations wherever we operate. Our tone on regulatory compliance is clear and consistently reiterated from the top of the organisation. We have zero tolerance for fraud, bribery, corruption and violation of laws and regulations.
Empowering Lives	Safety and health		Providing a safe and healthy working environment for all stakeholders is fundamental to our commitment to conduct business responsibly. We are strong advocates for safety and health in the broader community, and champion national and industry initiatives to raise standards and drive innovation in these aspects. The Keppel Group won 28 awards at the Workplace Safety and Health Awards in 2018, the highest number of awards won by a single organisation in the year.
	Labour practices and human rights		Our businesses spark economic growth, productivity and jobs. Our hiring policies ensure equal employment opportunities for all, and we are committed to invest in nurturing our human capital.
	Economic sustainability/ Community development		We are committed to operating sustainably, and apply our knowledge, skills and technology to drive innovation and support economic development and the well-being of our communities.
Nurturing Communities	Community development		Through collaboration with our stakeholders, we mobilise and share knowledge, expertise and technology, as well as financial and human resources to support the achievement of the SDGs.

Group Structure

GRI 102-4 | 102-5 | 102-6 | 102-7 | 102-45



Notes:

- Owned by a Singapore Consortium, which is in turn 90%-owned by the Keppel Group.
- Owned by Keppel Telecommunications & Transportation Ltd (19%) and Connectivity (81%), a joint venture between Keppel Corporation and Singapore Press Holdings.
- Owned by Keppel Land Limited (43%) and Keppel Capital Holdings Pte Ltd (4%).
- Public listed company.
- Owned by Keppel Infrastructure Holdings Pte Ltd (49%) and Keppel Infrastructure Trust (51%).
- Owned by Keppel Capital Holdings Pte Ltd (50%) and Keppel Telecommunications & Transportation Ltd (50%).

Updated as at 8 May 2019. The complete list of subsidiaries and significant associated companies is available at www.keppcorp.com.

Sustainability Management

GRI 102-18 | 102-19 | 102-20 | 102-22 | 102-26 | 102-29 | 102-31 | 102-32

Sustainability issues are managed and communicated at all levels of the Group.

Board Statement on Sustainability

“The key material environmental, social and governance factors for Keppel Corporation have been identified and are regularly reviewed by Keppel Corporation’s Board of Directors and management. The Board oversees the management and monitoring of these factors and takes them into consideration in the determination of the Company’s strategic direction and policies.”

Keppel Corporation Board of Directors

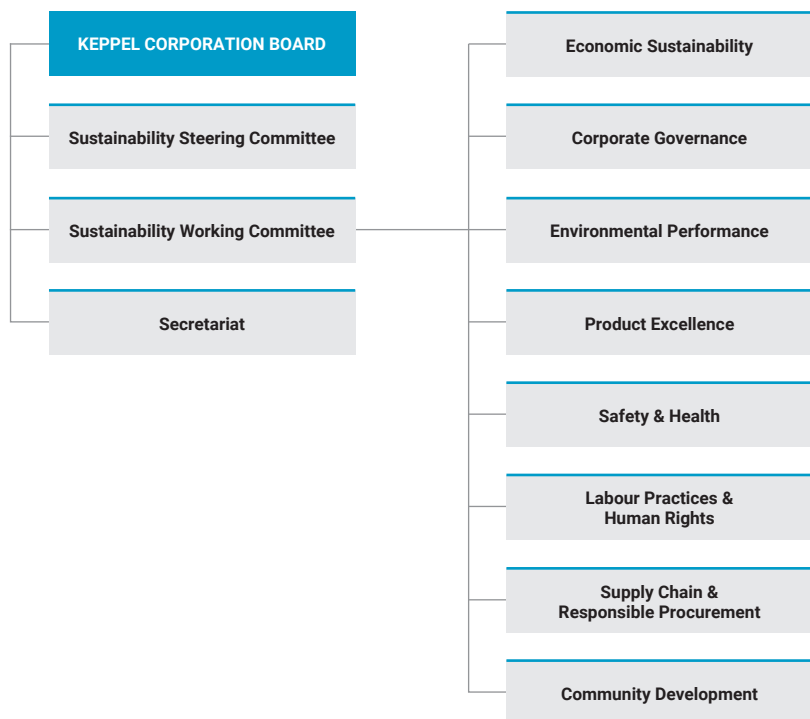
The Keppel Corporation Board and management regularly review as well as oversee the management and monitoring of the material Environmental, Social and Governance (ESG) factors of the Company, and take them into consideration in the determination of the Company’s strategic direction and policies.

The Group Sustainability Steering Committee provides guidance on strategic and operational issues. The committee is chaired by Keppel Corporation’s Chief Executive Officer and Executive Director Loh Chin Hua and comprises senior management from across the Group.

High-level strategic matters pertaining to sustainability issues are addressed at the annual Group Sustainability Steering Committee meeting.

Supporting the Steering Committee is the Working Committee, co-chaired by Sebastien Lamy, Director of Group Strategy & Development and Managing Director of Keppel Technology & Innovation, and Ho Tong Yen, Director of Group Corporate Communications, Keppel Corporation. The committee, comprising eight discipline-specific working groups with representatives from across our different businesses, executes and reports on the Group’s efforts across the material ESG aspects of Economic Sustainability, Corporate Governance, Environmental Performance, Product Excellence, Safety & Health, Labour Practices & Human Rights, Supply Chain & Responsible Procurement, and Community Development.

Keppel Group’s Sustainability Management Structure



Sustainability Management

Collaboration with stakeholders supports us in addressing sustainability challenges.

Stakeholder Engagement

GRI 102-21 | 102-42

Regular engagement with our stakeholders helps us determine our material areas of focus.

Our stakeholder engagement framework is developed in accordance with the AA1000 AccountAbility Stakeholder Engagement Standard, whereby stakeholders are defined to be individuals, groups of individuals or organisations that affect and/or could be affected by Keppel's activities, products or services and associated performance.

In reviewing our approach towards the management and reporting of ESG issues, Keppel embarked on a stakeholder consultation exercise in end-2018. All stakeholder groups are represented in the consultation process, which is targeted for completion in mid-2019.








Memberships in Associations

GRI 102-13

In addition to engaging our stakeholders, we participate as members of organisations that include:

- United Nations (UN) Global Compact as a Signatory, and Global Compact Network Singapore as a member; we are committed to the 10 principles of the Global Compact and support broader 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 Council to build industry capabilities to better manage WSH and promote safety and health at work;
- Singapore Institute of International Affairs to deepen understanding and forge stronger partnerships between countries in the region.

The Keppel Core Values
GRI 102-16

<div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Can Do Passion and Vigour</p> </div> <div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Integrity Act with Ethics and Honesty</p> </div> <div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Customer Focus Forge Value-Added Partnerships</p> </div> <div style="padding-bottom: 10px;">  <p>People-Centredness Value and Nurture People</p> </div>	<div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Safety Zero Accident, Zero Loss</p> </div> <div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Agility & Innovation Adapt to Change and Innovate for Growth</p> </div> <div style="border-bottom: 1px solid #ccc; padding-bottom: 10px;">  <p>Collective Strength Global Mindset and Teamwork</p> </div> <div style="padding-bottom: 10px;">  <p>Accountability Responsible to all Stakeholders</p> </div>
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Our Stakeholders

GRI 102-21 | 102-40 | 102-42 | 102-43 | 102-44



Employees

Significance

People are our most valuable asset. We are committed to investing in the development of our people. We adopt merit-based recruitment practices and emphasise diversity and inclusiveness.

Key Topics & Concerns

Vision, strategy and direction; innovation; productivity; collaboration; people development.

Approach

Annual employee engagement surveys; regular townhalls; training; mentorship programmes.

Our Response

Read more about how we manage our global workforce on pages 64 to 71.



Customers

Significance

Customer satisfaction is crucial to the success of our businesses. We are committed to continually improve our range of products to better meet customers' needs, and we harness insights from our engagements with customers.

Key Topics & Concerns

Product and service quality; Health, Safety and Environment (HSE) excellence.

Approach

Regular meetings; ongoing communications via email and phone; regular customer satisfaction surveys.

Our Response

Read more about how we engage customers on pages 53 and 54.



Governments

Significance

Governments shape the business environments in which we operate. Political factors, policies and regulation can affect how businesses are run and create new opportunities for companies. We track topics of concern to governments and regulatory bodies wherever we operate.

Key Topics & Concerns

Opportunities for business collaboration and investment; sharing of industry best practice; setting industry benchmarks.

Approach

Occasional official visits and meetings; industry forums.

Our Response

Read more about how we collaborate with governments to raise industry standards on pages 60 and 61 as well as page 80.



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 help shareholders and prospective investors make well-informed decisions and ensure a level playing field.

Key Topics & Concerns

Business strategy and direction; economic performance.

Approach

Regular conference calls; shareholder meetings; briefings to retail shareholders; facility visits; quarterly results webcasts; ongoing email and phone communications.

Our Response

Read more about how we engage the investment community on pages 32 and 33 of Keppel Corporation's Report to Shareholders 2018.



Suppliers

Significance

Strong, effective relationships with our suppliers give our businesses strategic advantages, including better value. By effecting stringent procurement processes and a supplier code of conduct, we aim to encourage our suppliers to adopt sustainable practices.

Key Topics & Concerns

Compliance; HSE excellence.

Approach

Regular meetings by project managers and HSE teams with key subcontractors and suppliers; regular site visits by management.

Our Response

Read more about how we work with suppliers to influence their sustainability performance on pages 48 to 50.



Local Communities

Significance

As active members of our communities, we aim to contribute towards their continued well-being. We engage community leaders to develop impactful programmes that drive community development.

Key Topics & Concerns

Community investments, volunteer programmes.

Approach

Regular meetings and community outreach initiatives.

Our Response

Read more about how we collaborate with community partners to drive social development on pages 72 to 83.

Materiality

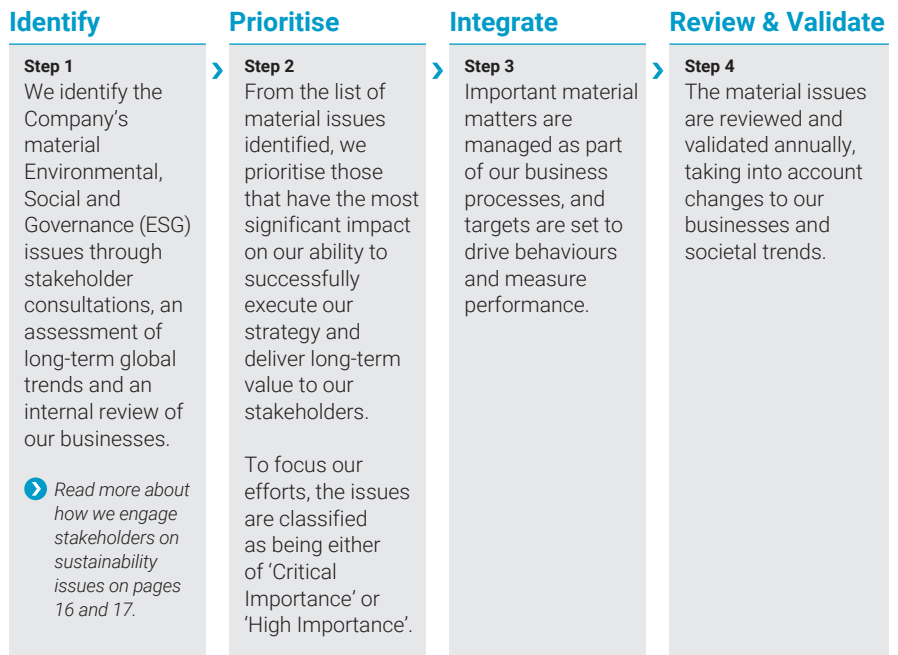
GRI 102-46

Our materiality assessments are based on principles of inclusivity, materiality and completeness.

Materiality assessments are important components of Keppel’s sustainability strategy and reporting. Our materiality assessments were based on the AA1000 AccountAbility Principles of Inclusivity and Materiality, as well as the Global Reporting Initiative (GRI) Principles for Defining Report Content – stakeholder inclusiveness,

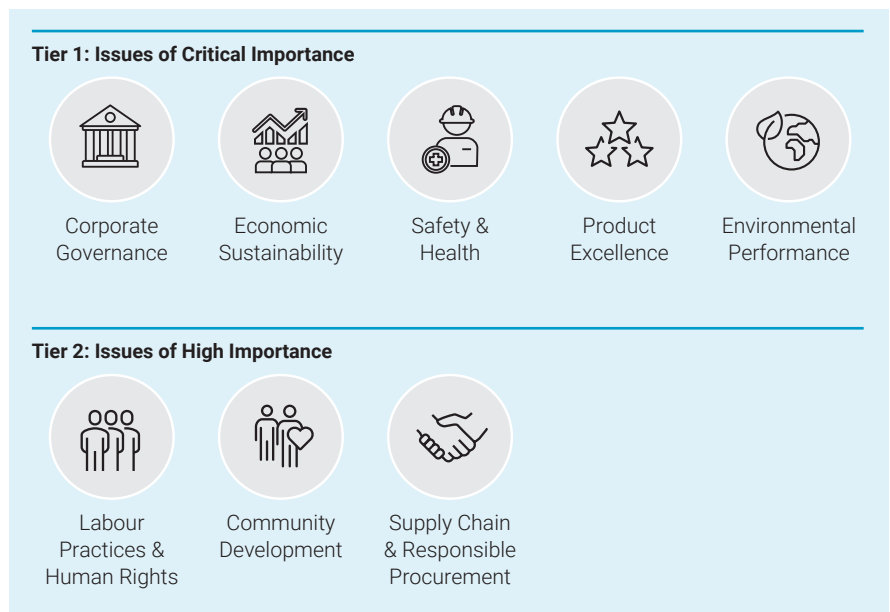
sustainability context, materiality and completeness. Materiality with respect to sustainability reporting, as defined by GRI Standards, includes topics and indicators that reflect the organisation’s significant economic, environmental, and social impacts; and would substantively influence the assessments and decisions of stakeholders.

Process



Keppel Corporation Material Issues

GRI 102-47



United Nations Global Compact

GRI 102-12

We are a signatory of the United Nations (UN) Global Compact and are committed to upholding its 10 principles on human rights, labour, environment and anti-corruption. The following report index describes the progress we have made in 2018.



Performance Data

Principle	Approach	Measures
HUMAN RIGHTS Principle 1 Support of human rights Principle 2 Exclusion of human rights abuses	Keppel upholds and respects the fundamental principles set out in the UN universal declaration of human rights and the International Labour Organisation's (ILO) declaration on fundamental principles and rights at work. Our approach to human rights is informed and guided by general concepts from the UN Guiding Principles on Business and Human Rights. We respect the values and cultures of the people and the communities in which we operate, and aim to serve as a positive influence.	Our stance on human rights is formalised in our corporate statement on human rights which is publicly available online. Our suppliers are expected to abide by the Keppel supplier code of conduct, which sets our expectations for suppliers to respect and uphold fundamental human rights in their operations. Where applicable, our business units conduct outreach programmes and briefings to subcontractor workers to inform them of their employment rights, and the available channels to report any violation of their rights. In the broader community, we contribute towards providing educational opportunities to the disadvantaged through scholarships and bursaries, as well as offer skills development and job training opportunities at our workplaces. ▶ Read more about how we screen and qualify our suppliers on pages 49 and 50. ▶ Read more about how we support education for the disadvantaged on pages 76 to 83.
LABOUR Principle 3 Assurance of freedom of association Principle 4 Elimination of all forms of forced and compulsory labour Principle 5 Abolition of child labour	We have zero tolerance for unethical labour practices such as child labour, forced labour, slavery and human trafficking in any of our operations. Keppel also supports the elimination of exploitative labour. Unions are our partners and we place great emphasis on maintaining a harmonious relationship. Approximately 28.9% of our global workforce are bargainable employees covered by collective agreements.	We adhere to national labour laws and regulations wherever we operate. In Singapore, both local and foreign workers receive protection under the Penal Code and employment legislation such as the Employment Act and Workplace Safety and Health Act. In addition, foreign workers, especially the lower-skilled and lower-income workers, are accorded additional protection under the Employment of Foreign Manpower Act and the Employment Agencies Act. The Keppel supplier code sets out the standards of conduct to which our suppliers are expected to adhere to in relation to child labour, forced labour, freedom of association, equal opportunity and fair compensation. ▶ Read more about our labour practices on pages 64 to 71.
Principle 6 Elimination of discrimination	Our hiring policies ensure equal employment opportunities for all. New hires are considered based on individual competencies as well as organisational and job fit. Our employment statistics are reviewed regularly.	Our employee code of conduct sets the tone in relation to the Group's stance against discrimination on any basis. We adhere to provisions of national laws and regulations concerning discrimination wherever we operate. Our company policies and procedures make qualifications, skills and experience the basis for the recruitment, placement, training and advancement of staff at all levels. If any discrimination is identified, guidelines are in place for the appropriate handling on any grievance cases to address complaints, handle appeals and provide recourse for employees. In Singapore, Keppel adheres to the tripartite guidelines on fair employment practices and endorses the employers' pledge of fair employment practices. A key principle espoused in the guidelines is that the recruitment of employees should be on the basis of merit and regardless of race or other characteristics, such as age and gender.

United Nations Global Compact

Performance Data

Principle	Approach	Measures
<p>ENVIRONMENT</p> <p>Principle 7 Precautionary approach to environmental challenges</p> <p>Principle 8 Initiatives to promote greater environmental responsibility</p> <p>Principle 9 Development and diffusion of environmentally friendly technologies</p>	<p>The proactive management of our environmental impact enables us to improve resource efficiency, reduce costs and support the global climate change agenda.</p> <p>The Group's risk-based strategies are used to assess, avoid, reduce and mitigate environmental risks and impacts. Our focus areas are enhancing energy efficiency, managing water and waste, reducing our carbon emissions and improving our environmental management systems.</p> <p>Our approach to environmental management covers the following aspects:</p> <ul style="list-style-type: none"> – fulfilling compliance obligations; – protecting the environment by preventing or mitigating adverse environmental impacts; – enhancing environmental performance; – achieving financial and operational benefits that can result from implementing environmentally sound alternatives that strengthen Keppel's market position; and – communicating environmental information to relevant interested parties. 	<p>All our key business units are certified to the ISO 14001 environmental management system, which guides how we identify, manage, monitor and control environmental issues. In addition, the rigs and ships we build comply with all six technical annexes of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which is the main international convention covering prevention of pollution of the marine environment by ships, while our data centres are certified under the SS 564 Singapore standard for national green data centres management system.</p> <p>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.</p> <p>In line with our mission of providing solutions for sustainable urbanisation, the Group considers environmental factors during the planning and design of our property developments, data centres and warehouses as well as during their operation phases.</p> <p>Read more about our initiatives to promote greater environmental responsibility on pages 39 to 47.</p>
<p>ANTI-CORRUPTION</p> <p>Principle 10 Measures against corruption</p>	<p>Guided by our core values and enhanced code of conduct, we are fully committed to ensuring that compliance is a central pillar of our management and an integral part of our corporate culture and business processes. We will do business the right way and comply with all applicable laws and regulations wherever we operate.</p> <p>Our tone for regulatory compliance is clear and consistently reiterated from the top and throughout all levels of the Group. We have zero tolerance for fraud, bribery, corruption and violation of laws and regulations.</p> <p>Our regulatory compliance governance structure is designed to strengthen our corporate governance. The board risk committee supports the Board in its oversight of regulatory compliance and is responsible for driving the Group's implementation of effective compliance and governance systems.</p> <p>We continue to improve our risk-based due diligence process for all third party associates who represent the Keppel Group in business dealings, including our joint venture partners, to assess the compliance risk of the business partner. In addition to background checks, the due diligence process incorporates requirements for third party associates to acknowledge understanding and compliance with our code of conduct.</p>	<p>We have a strict code of conduct that applies to all employees, who are required to acknowledge and comply with the code. The code covers areas from conduct in the workplace to business conduct, including clear provisions on prohibitions against bribery and corruption, and conflicts of interests amongst others.</p> <p>We ensure that our compliance policies and procedures are communicated effectively to all employees and directors. These include policies on anti-bribery, gifts and hospitality, agent fees, donations and sponsorships, solicitation and extortion, conflict of interest, and insider trading amongst others.</p> <p>Our written policy on commitment to compliance with anti-corruption laws was strengthened in 2018 with the issuance of the global anti-bribery policy, consolidating the multiple relevant policies which form part of our compliance programme. The procedures and rules defined in the policy encapsulates key points of the Group's zero-tolerance approach towards bribery.</p> <p>An e-training and assessment exercise covering all key policies, including Keppel's enhanced code of conduct, is carried out on an annual basis, and targeted training focused on line manager responsibilities and employee obligations were conducted in 2018. Over 15,000 directors and employees completed the e-training and toolbox training in 2018.</p> <p>Keppel's Whistle-Blower Policy encourages the reporting of suspected bribery or misconduct through a clearly-defined process and reporting channel, by which reports can be made in confidence and without fear of reprisal. In 2018, the whistle-blower hotline was outsourced to an external and independent service provider to cater to language and time zone requirements across the different countries in which the Group operates.</p> <p>In November 2018, Keppel Offshore & Marine's Singapore entities achieved the ISO 37001 certification on anti-bribery management system. We continue to work towards certification for the Group.</p> <p>Read more about our regulatory compliance framework, as well as policies and procedures to reinforce a strong compliance culture on pages 37 and 38.</p>

Awards & Recognition

Sustainable Business Awards Singapore

Keppel Corporation won the United Nations Sustainable Development Goals (SDG) category at the Sustainable Business Awards 2018. The awards, organised by Global Initiatives in partnership with PwC Singapore, recognise businesses with sustainable business practices.



Asia Sustainability Reporting Awards

Keppel Corporation was honoured as a finalist at the fourth Asia Sustainability Reporting Awards for the categories of Asia's best workplace reporting, Asia's best community reporting and Asia's Best SDG reporting. The awards, which recognise exemplary corporate reporting in Asia, had close to 400 submissions from 16 countries.



MSCI World ESG Leaders Index

Keppel Corporation was listed as a constituent of the MSCI World ESG Leaders Index¹ for the fifth consecutive year. The index comprises companies with high environmental, social and governance (ESG) ratings relative to their regional sector peers.



iEdge SG ESG Indices

Keppel Corporation continued to be listed among the top 10 constituents of the iEdge SG ESG Leaders Index (formerly SGX ESG Leaders Index) and iEdge SG ESG Transparency Index (formerly SGX ESG Transparency Index) in 2018. The iEdge SG ESG Indices are composed of SGX-listed companies that meet minimum sustainability reporting requirements and are considered ESG leaders with established and leading ESG practices.



Euronext Vigeo Eiris Index-World 120

Keppel Corporation was listed as an index component of the Euronext Vigeo Eiris – World 120 Index for the sixth 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.



Workplace Safety and Health Awards

The Keppel Group was conferred 28 awards at the Workplace Safety and Health (WSH) Awards 2018 organised by Singapore's Ministry of Manpower and the WSH Council. The Group received accolades in the following categories: Safety and Health Award Recognition for Projects Awards, WSH Performance Awards, WSH Innovation Awards and WSH Awards for Supervisors. This is the largest number of awards won by a single organisation in 2018.

Champion of Good

Keppel was conferred the title Champion of Good, a national recognition framework under the Company of Good programme by Singapore's National Volunteer & Philanthropy Centre, for the second consecutive year.



Patron of the Arts Award

Keppel Corporation was conferred the Distinguished Patron of the Arts Award by Singapore's National Arts Council for the 11th consecutive year. The award recognises organisations which have contributed significantly towards the development of the arts.

¹ The inclusion of Keppel Corporation in any MSCI Index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Keppel Corporation by MSCI or any of its affiliates. The MSCI Indices are the exclusive property of MSCI. MSCI and the MSCI Index names and logos are trademarks or service marks of MSCI or its affiliates.

Economic Sustainability

Urbanisation trends present many exciting and interconnected opportunities for Keppel, whether it is providing energy, property, environmental solutions or connectivity.



MAJOR DEVELOPMENTS IN 2018

Offshore & Marine

Secured about \$1.7 billion worth of new contracts.

Sold five existing drilling rigs to Borr Drilling.

Delivered eight major projects safely, on time and on budget.

Signed Technical Assistance and License Agreement with Gaztransport & Technigaz to jointly market LNG solutions.

Signed a Memorandum of Understanding (MOU) with the Maritime Port Authority of Singapore and the Technology Centre for Offshore and Marine, Singapore to jointly develop autonomous vessels.

Singapore entities achieved certification for the ISO 37001 Anti-Bribery Management System.

Property

Sold about 4,440 homes in Asia, mainly in China, Vietnam and India.

Completed divestments and sale of residential projects en-bloc worth \$1.7 billion across Singapore, China, Vietnam and Thailand.

Completed about \$0.8 billion worth of acquisitions in Singapore, China, Vietnam and Indonesia.

Replenished residential landbank with the addition of about 3,600 units in China and 500 units in Indonesia.

Infrastructure

Secured \$180 million worth of contracts in energy and environmental infrastructure across Singapore, Australia, China and Europe.

Signed two agreements to develop and operate data centres in Jakarta, Indonesia and Johor, Malaysia.

Signed partnership agreements to explore data centre opportunities in China.

Raised stake in UrbanFox to 85% to pursue growth in e-commerce channel management and last-mile fulfilment.

Investments

Keppel Capital announced expansion into new asset classes such as senior living.

Keppel REIT divested a 20% stake in Ocean Financial Centre in Singapore.

Keppel Infrastructure Trust announced the acquisition of Ixom.

Keppel DC REIT and Keppel-KBS US REIT expanded their portfolios with acquisitions worth over \$700 million.

AAMTF III closed at US\$1.1 billion.

KUS signed MOUs with Envision and ST Engineering for smart city solutions.

KUS signed MOUs for development opportunities in the Philippines and China.

Keppel and SPH launched an offer to take majority control of M1. On 16 April 2019, Konnectivity, a joint venture between Keppel Corporation and SPH, exercised its rights to compulsorily acquire all the shares of shareholders who have not accepted the offer.

Overview

Today, more than half of the world's population live in urban areas. According to estimates by the United Nations, urban areas are projected to house 68% of people globally by 2050¹.

Urbanisation trends and a growing middle class, especially in Asia, continue to drive demand and provide opportunities for companies able to supply solutions to meet their needs. Robotics, artificial intelligence and digitalisation are also empowering companies with new ways of working, and provide actionable insights to enable the provision of more effective and efficient solutions for customers.

Management Approach

GRI 102-10 | 103-1 | 103-2 | 103-3

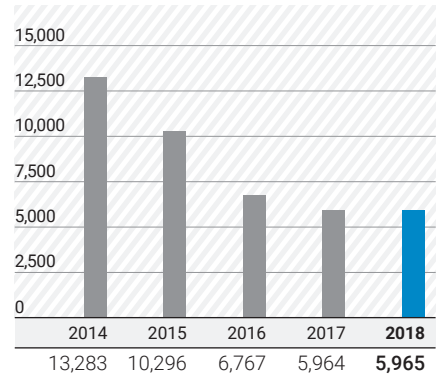
Urbanisation trends present many exciting and interconnected opportunities for Keppel, whether it is providing energy, property, environmental solutions or connectivity. With a view to developing future growth engines, we are actively exploring and investing in new businesses such as senior living and renewable energy infrastructure. We are also expanding our presence in consumer businesses including electricity retail, urban logistics and telecommunications.

We have undertaken strategic initiatives to stay relevant, unlock new opportunities and drive growth in a fast-changing landscape.

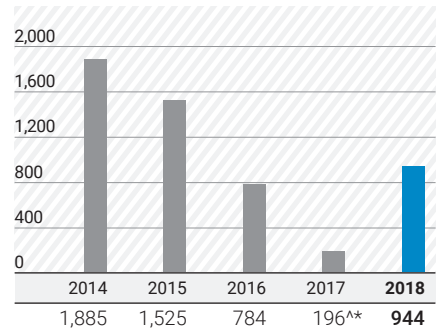
In September 2018, Keppel Corporation announced a major strategic initiative, in collaboration with Singapore Press Holdings (SPH), to gain majority control of M1, in order to drive business changes that will enable M1 to compete more effectively in the telecommunications industry. The voluntary conditional general offer for M1 turned unconditional in February 2019, with the joint venture company, Konnectivity, and its concert parties achieving majority control of M1. On 16 April 2019, due to the strong support from M1's shareholders, Konnectivity exercised its rights to compulsorily acquire all the shares of shareholders who have not accepted the offer. M1 complements Keppel's mission as a solutions provider for sustainable urbanisation, which includes connectivity, and can serve as a digital platform and connectivity partner to complement and augment Keppel's current suite of solutions.

¹ Revision of World Urbanisation Prospects (2018), Population Division of the UN Department of Economic and Social Affairs (UN DESA).

Revenue (\$m)



Net Profit (\$m)



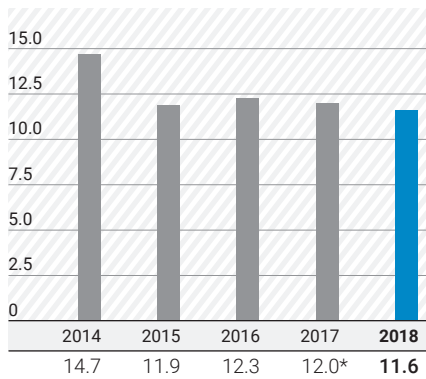
* 2017 financial figures have been adjusted, following the adoption of the new financial reporting framework, Singapore Financial Reporting Standards (International).
[^] Includes the one-off financial penalty and related costs of \$619 million.



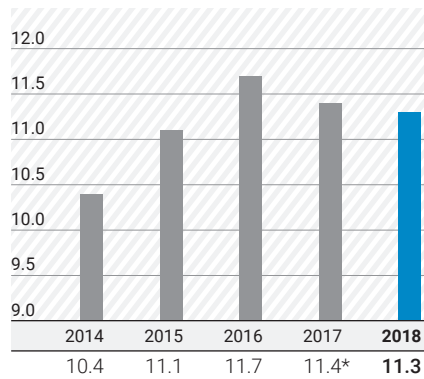
Keppel Capital continues to seek out new markets and asset classes such as senior living, which are fuelled by urbanisation trends.

Economic Sustainability

Total Equity (\$b)



Shareholders' Funds (\$b)

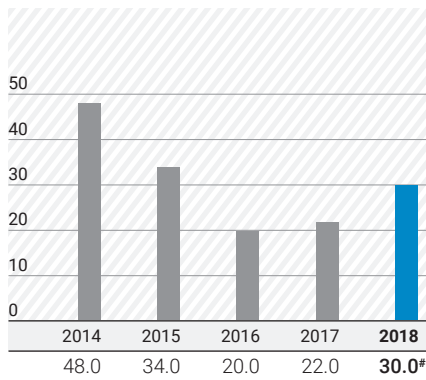


Financial Performance in 2018

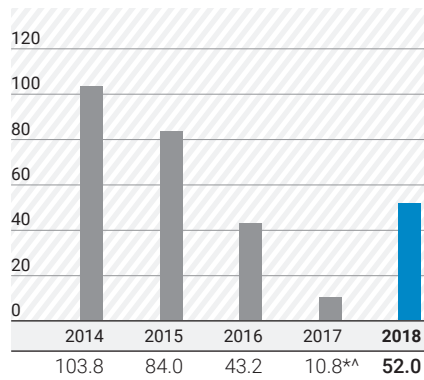
GRI 419-1

For 2018, the Group achieved a net profit of \$944 million, an increase of 382% from \$196 million for 2017. Net profit for 2017 included \$619 million for the one-off financial penalty arising from Keppel Offshore & Marine's global resolution with criminal authorities in the United States, Brazil and Singapore, and related legal, accounting and forensics costs. Excluding the one-off financial penalty and related costs from 2017, net profit for 2018 of \$944 million was 16% above the net profit of \$815 million for 2017 due largely to earnings growth registered by the Property and Infrastructure Divisions as well as lower loss at the Offshore & Marine Division, partly offset by loss from the Investments Division.

Total Distribution Per Share (cts)



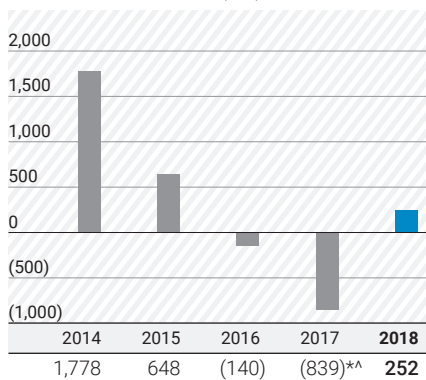
Earnings Per Share (cts)



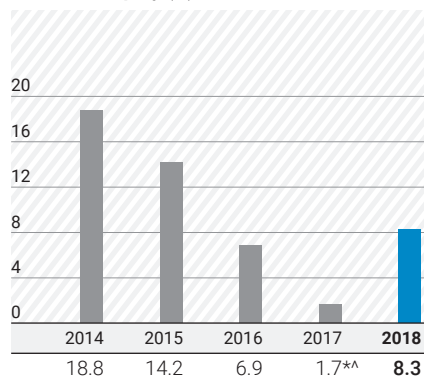
Earnings Per Share was 52.0 cents, an increase of 381% from 10.8 cents for 2017. Return On Equity was 8.3%, compared to 1.7% for 2017. Economic Value Added was positive \$252 million for 2018, compared to negative \$839 million for 2017. Free cash inflow was \$515 million, compared to \$1,802 million for 2017. Net gearing for 2018 was 0.48 times, compared to 0.46 times for 2017.

Total cash dividend for 2018 will be 30.0 cents per share. This comprises a proposed final cash dividend of 15.0 cents per share as well as an interim cash dividend of 10.0 cents per share and a special cash dividend of 5.0 cents per share paid in the third quarter of 2018.

Economic Value Added (\$m)



Return On Equity (%)



Comprises a proposed final cash dividend of 15.0 cents per share, an interim cash dividend of 10.0 cents per share and a special cash dividend of 5.0 cents per share.

* 2017 financial figures have been adjusted, following the adoption of the new financial reporting framework, Singapore Financial Reporting Standards (International).

^ Includes the one-off financial penalty and related costs of \$619 million.

Economic Value Generated by Keppel	Economic Value Distributed to Others	Economic Value Retained by Keppel
\$7,058m This includes revenue, interest and investment income, and disposal gains.	Operating Costs \$3,939m This includes purchases from suppliers and contractor costs, and other operating expenses.	\$1,242m The majority of this is invested in capital expenditure and acquisitions.
	Employee Wages & Benefits¹ \$988m Employee costs include salaries and benefits.	
	Capital Providers \$745m This includes dividends and interest paid.	
	Governments \$135m This includes income taxes paid, net of refunds received.	
	Communities \$8.9m This includes voluntary donations and sponsorships disbursed that are not business or marketing related.	

¹ Excludes capitalised staff costs in stocks and work-in-progress and capital expenditure.

Government Assistance & Taxes Paid

GRI 201-4

In 2018, the Group received a total of \$6.6 million in financial assistance from governments. Approximately 57% of financial assistance received was from the government of China for business development incentives, land subsidies and green building grants. Close to 39% relates to the Singapore government's Research and Development grants as well as cash grants under its wage credit and employment credit schemes. The remaining 4% was from the governments of Australia and Belgium.

The Group operates in more than 20 countries and has paid a total of \$135 million in taxes to the various countries and tax jurisdictions in which it operates.

Employee Compensation

In 2018, staff costs amounted to \$988 million in the form of wages and salaries, employer's contribution to Singapore's Central Provident Fund, share options and share plans, as well as other staff benefits. The Group's average number of employees in 2018 was 18,186².

Economic Value Delivered to Society

GRI 201-1

Keppel's business operations generate employment, opportunities for suppliers and tax revenues for governments. We are committed to positively impact the communities in which we operate, and contribute to worthy social causes through donations and sponsorships.

In 2018, Keppel generated \$7,058 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 maintain our competitive edge and stand ready to seize growth opportunities.

² 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.

Corporate Governance

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



PERFORMANCE OVERVIEW

2018 Targets

Identify opportunities to harmonise both risk and compliance policies and processes, and strengthen corporate governance as well as improve the Group’s risk and compliance culture.

Integrate risk management into strategic planning and reinforce proactive risk management approaches.

Recruit experienced compliance officers to further enhance compliance coverage and processes.

Evaluate controls and compliance culture as part of internal audit.

Conduct targeted training and communication of policies and procedures to relevant employees.

2018 Performance

Introduced policies and enacted new processes to strengthen risk and compliance standards of practice and overall corporate governance across the Group.

Reinforced a stronger culture of proactive risk management encompassing emerging or evolving risks.

Initiated the evaluation of controls and compliance culture as part of the scope of internal audits.

Delivered targeted training focused on line manager responsibilities and employee obligations through both face-to-face training and the annual e-training and declaration of Group policies exercise.

2019 Targets

Continue to improve risk and compliance policies, processes and operating standards to strengthen the overall culture of risk and compliance and corporate governance in the Group.

Embed proactive risk management as part of the overall operating framework for risk management and governance.

Cascade compliance best practices through targeted training and workshops.

Extend the evaluation of controls and compliance culture as part of internal audits.

Topics

Ethics and integrity

Governance

Anti-corruption

Risk management

Regulatory compliance

SDGs



Overview

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 and guidelines of the Code of Corporate Governance 2012 (the "2012 CG Code"). In describing corporate governance practices, the Company also took guidance from the Code of Corporate Governance 2018 (the "2018 CG Code")¹ and accompanying Practice Guidance.

Board's Conduct of Affairs

GRI 102-18 | 102-22 | 102-23 | 102-26 | 102-33 | 103-1 | 103-2 | 103-3

Governance Framework

KCL's governance structure is set out below.

Dr Lee Boon Yang is the non-executive and independent Chairman of the Company. Mr Loh Chin Hua is the CEO of the Company.

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 sets guidelines on and monitors the flow of information from

System Of Management Controls Framework

3

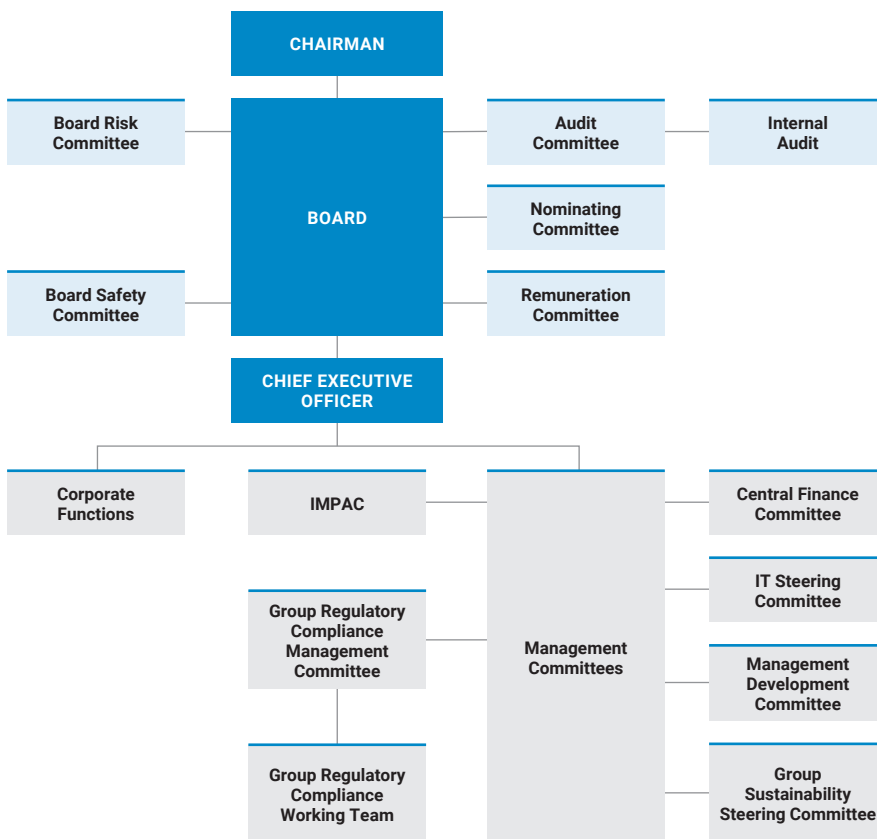
Lines of Defence towards ensuring the adequacy and effectiveness of the Group's system of internal controls and risk management.

Independence Of Directors

8

Out of 10 directors are independent.

Governance Framework 2018



¹ The 2018 CG Code was issued on 6 August 2018 by the Monetary Authority of Singapore to replace the 2012 CG Code and will apply to annual reports covering financial years commencing from 1 January 2019 onwards.

Corporate Governance

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, and between the executive and non-executive directors. 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 annual general meetings and other shareholders' 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.

To assist the Board in the discharge of its oversight function, various board committees, namely the Audit, Board Risk, Nominating, Remuneration, and Board 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. The responsibilities and authority of the board committees are set out in their respective terms of reference, which were revised in January 2019 for alignment with the 2018 CG Code.

The CEO, 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 includes:

1. *Investments & Major Projects Action Committee (IMPAC)*, which guides the Group to exercise the 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 risks, in a controlled manner;

2. *Management Development Committee (MDC)*, which nominates candidates as nominee directors to the boards of each unlisted company or entity that the Company is invested in ("Investee Company") so as to safeguard the Company's investment. In respect of Investee Companies that are (a) listed on a stock exchange, (b) managers or trustee managers of any collective investment schemes, business trusts or any other trusts which are listed on a stock exchange, or (c) parent companies of the Company's core businesses, the Committee will recommend the candidates for the approval of the Nominating Committee. The MDC also provides inputs, guidance and direction on operational policies and human resources/organisational matters;
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 over-arching compliance policies and guidelines, and facilitates the implementation and sharing of policies and procedures across the Group;
5. *Group Regulatory Compliance Working Team (Group RCWT)*, which supports the Group RCMC and oversees the development and review of over-arching compliance policies and guidelines for the Group, as well as review training and communication programs;
6. *Keppel IT Steering Committee*, which provides strategic information technology (IT) leadership and ensures IT strategy alignment in achieving business strategies; and
7. *Group Sustainability Steering Committee*, which sets sustainability strategy and leads performance in key focus areas.

Board Strategic Review

The Board periodically reviews and approves the Group's strategic plans. In FY 2014, the Board approved the Group's Vision 2020² which sets out the vision, operating principles and values of the Group, and the roadmap³ to take the Group's businesses into 2020 to achieve faster growth, build a stronger Keppel that fully captures the significant synergies within and among its Group companies, and fully develop the potential of its people.

A process is in place to support the Board in reviewing and monitoring the Group's strategic plans, including providing directors with the necessary context and opportunity to undertake effective and robust deliberation and debate. In this regard, a two-day off-site board strategy meeting is organised annually for in-depth discussion on strategic issues and direction of the Group. This is followed by an update of each business unit's strategic plans for alignment with the Group's strategy. To support the Board's oversight of the implementation of the strategic plans, one business unit is invited to each quarterly Board meeting to present on its plans and current challenges and provide the Board an opportunity to perform an in-depth review into each of the Group's core businesses.

An Effective Board

GRI 102-25 | 102-27 | 102-28

Our Board fully understands that they must act in the best interest of the Company at all times, are accountable to the shareholders and have the responsibility to safeguard the interests of all shareholders. In this aspect, 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 Nominating Committee ("NC") determines on an annual basis whether or not a director is independent. There is a strong and independent element on our Board, with an independent chairman and majority of our Board comprising independent directors. Except for the Board Safety Committee, all board committees comprise entirely independent or non-executive directors, with independent chairmen.

Independent Judgment

All directors are expected to exercise independent judgment in the best interests of the Company. This is one of the performance criteria for the peer and self-assessment on the effectiveness of the individual directors. Based on the results of the peer and self-assessment carried out by the directors for FY 2018, all directors have discharged this duty consistently well.

² With effect from FY 2014, and following a review and update in 2017, the vision of the Company is to be a global company at the forefront of its chosen industries, shaping the future for the benefit of all its stakeholders – Sustaining Growth, Empowering Lives and Nurturing Communities. Guided by our operating principles and core values, the Company's mission is to deliver solutions for sustainable urbanisation profitably, safely and responsibly.

³ This roadmap includes four broad areas for sustainable growth: (1) *Business*: Setting the overarching strategies, targets, and key actions to be undertaken by the business units; (2) *People*: Building a robust succession pipeline and continued strong employee satisfaction; (3) *Process*: Pursuing excellence in safety, productivity and innovation; and (4) *Corporate Citizenry*: Formalising and further organising community outreach efforts to positively impact communities in which the Group operates.

Conflict 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. On an annual basis, each director is also required to submit details of his/her associates for the purpose of monitoring interested persons transactions.

Directors facing conflicts of interest recuse themselves 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. In January 2019, the Board had, on the recommendation of the NC, approved and adopted the "Keppel Group – Directors' Conflict of Interest Policy" to help inform Keppel directors about the general principles relating to conflicts of interest, as well as to guide directors in identifying, disclosing and managing conflict situations. The policy further serves to emphasise the Keppel Group's commitment to ethics and compliance with the law, for the protection of the Company's interest and the promotion of transparency for the benefit of shareholders.

Board Competency & Diversity

The competencies and skill sets of the directors and the composition of the Board play a role in the overall effectiveness of the Board. At Keppel, the NC ensures that the Board and board committees comprise directors who, as a group, provide core competencies required to exercise effective oversight and direction.

The NC is satisfied that the Board and the board committees comprise directors who as a group provide an appropriate balance and mix of skills, knowledge, experience, and other aspects of diversity such as gender and age. The NC is also satisfied that the directors, as a group, possess core competencies including accounting or finance, business or management experience, human resource, risk management, technology, mergers and acquisitions, legal, international perspective, industry knowledge, strategic planning experience and customer-based experience or knowledge, required for the Board and the board committees to be effective.

In this respect, the NC recognises the merits of gender diversity in relation to the composition of the Board and, in identifying suitable candidates for new appointment to the Board, would ensure

that female candidates are included for consideration. Having said that, gender is but one aspect of diversity and, while due consideration would be given to the benefits of diversity, new directors will continue to be selected on merits based on objective criteria. In FY 2018, there was 1 female director out of a total of 10 directors.

Board Information

To effectively engage the management, the Board, in particular, the non-executive directors, must be kept well informed of the Company's business 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 non-executive directors are well supported by accurate, complete and timely information, have unrestricted access to management, and have sufficient time and resources to discharge their oversight function effectively.

These initiatives include regular informal meetings for management to brief the directors on prospective deals and potential developments at an early stage before formal board approval is sought, and the circulation of relevant information on business initiatives, industry developments and analyst and press commentaries on matters in relation to the Company or the industries in which it operates. 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. A two-day off-site board strategy meeting is organised annually for in-depth discussion on strategic issues and direction of the Group, to give the non-executive directors a better understanding of the Group and its businesses, and to provide an opportunity for the non-executive directors to familiarise themselves with the management team so as to facilitate the Board's review of the Group's succession planning and leadership development programme. Directors are also entitled to request from management, and would be provided with, such additional information as may be needed from time to time in order to make informed decisions.

Training

The 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. A training programme is also in place for directors in areas such as accounting, finance, risk governance and management, the roles and responsibilities of a director of a listed company and industry specific matters. In FY 2018, some KCL directors attended talks on topics relating to corporate governance and ethics (including case studies), cybersecurity governance, health safety and environment (HSE) performance, and macroeconomic trends. Sites 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.

Board Evaluation

Our Board has implemented formal processes for assessing the effectiveness of the Board as a whole and its board committees, the contribution by each individual director to the effectiveness of the Board, as well as the effectiveness of the Chairman of the Board.

To ensure that the assessments are done promptly and fairly, the Board has appointed an independent third party (the "Independent Co-ordinator") to assist in collating and analysing the returns of the board members. Mr Michael Lim, former Chairman, PricewaterhouseCoopers and Land Transport Authority, and currently Chairman of Nomura Singapore Limited, was appointed for this role. Mr Michael Lim does not have business relationships or any other connections with the Company or its directors which may affect his independent judgment.

Board Composition & Succession Planning

GRI 102-24

There is a process of refreshing the Board progressively over time 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 Board believes that orderly succession and renewal is achieved as a result of careful planning, where the appropriate composition of the Board is continually under review.

The NC is responsible for reviewing the succession plans for the Board. In this regard, it has put in place a formal process for the renewal of the Board and the selection of new directors. The NC leads the process and makes recommendations to the Board as follows:

1. NC reviews annually the balance and mix of skills, knowledge, experience, and other aspects of diversity such as gender and age, and the size of the Board which would facilitate decision-making.



Keppel's Board Safety Committee regularly makes site visits to the Group's operations such as the Keppel Marina East Desalination Plant in Singapore.

- In this review, the NC will also take into account the needs of the Group, the collective skills and competencies of the Board and service tenure spread of the directors. In the year under review (FY 2018), for purposes of Board succession planning, the NC also took into consideration the 2018 CG Code and the amendments to the SGX Listing Rules relating to the continued appointment as "independent director" of a director who has served for an aggregate period of more than 9 years, bearing in mind that these rules would come into effect from 1 January 2022.
2. 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.
 3. 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.
 4. NC meets with the short-listed candidate(s) to assess suitability and to ensure that the candidate(s) is/are aware of the expectations and the level of commitment required.
 5. NC makes recommendations to the Board for approval.

All new appointments are subject to the recommendation of the NC based on the following objective criteria:

1. Integrity
2. Independent mindedness
3. Diversity – Possess core competencies that meet the needs of the Company and complement the skills and competencies of the existing directors on the Board
4. Able to commit time and effort to carry out duties and responsibilities effectively
5. Track record of making good decisions
6. Experience in high-performing companies
7. Financially literate

The NC is also charged with the responsibility of re-nomination having regard to the director's 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.

The directors submit themselves for re-nomination and re-election at regular intervals of at least once every three years. Pursuant to the Company's constitution, one-third of the directors retire from office at the Company's annual general meeting, and a newly appointed director must submit himself/herself for re-election at the annual general meeting immediately following his/her appointment.

Remuneration Framework

GRI 102-35 | 102-36

The Remuneration Committee ("RC") is responsible for ensuring a formal and transparent procedure for developing policy on 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, and thereby maximise shareholder value, and recommends to the Board for endorsement a framework of remuneration (which covers all aspects of remuneration including directors' fees, salaries, allowances, bonuses, share-based incentives and awards, benefits in kind and termination payments) and the specific remuneration packages for each director and the key management personnel. The remuneration framework is set out from pages 78 to 82 of our Report to Shareholders 2018.

To enhance objectivity, the RC comprises entirely non-executive directors, three out of four of whom (including the Chairman) are independent.

The RC has access to expert advice from external remuneration consultants where required. In FY 2018, the RC sought views on market practice and trends from

external remuneration consultants, Aon Hewitt. 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

GRI 102-11 | 102-17 | 102-33 | 205-2

The Board, supported by the Audit Committee ("AC") and Board Risk Committee ("BRC"), oversees the Group's system of internal control and risk management.

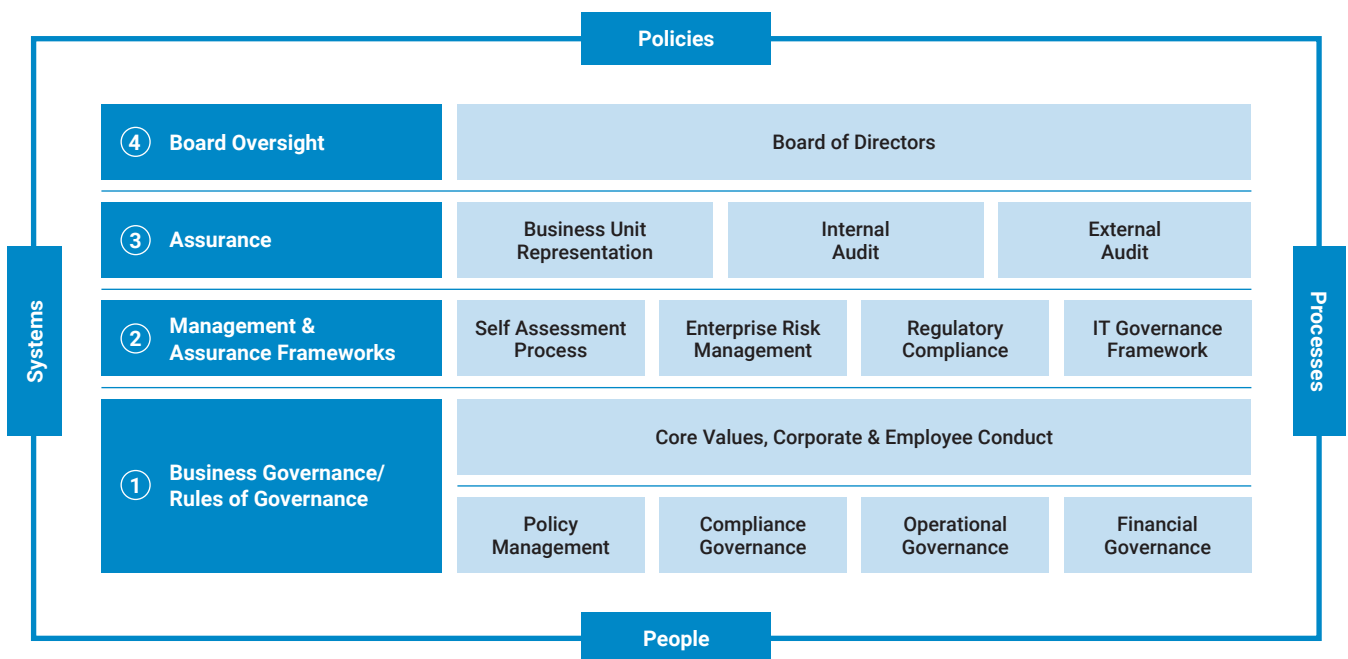
The AC's primary role is to assist the Board in ensuring the integrity of financial reporting and adequacy and effectiveness of the system of internal controls. The BRC considers the nature and extent of the significant risks which the Company may take in achieving its strategic objectives and value 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.

Keppel's System of Management Controls Framework

The Group has in place Keppel's System of Management Controls Framework (the "Framework") outlining the Group's internal control and risk management processes and procedures. The Framework comprises three Lines of Defence towards ensuring the adequacy and effectiveness of the Group's system of internal controls and risk management.

Under the first Line of Defence, management is required to ensure good corporate governance through the implementation and management of policies and procedures relevant to the Group's business scope and environment. Such policies and procedures govern financial, operational, information technology and regulatory compliance matters and are reviewed and updated periodically. Compliance governance is governed by the respective regulatory compliance management committees and working teams. Employees are also guided by the Group's Core Values and expected to comply strictly with Keppel's Code of Conduct.

Keppel's System of Management Controls (KSMC)



Corporate Governance

Reporting Mechanisms

10

Countries with local toll-free whistle-blower hotlines, and 1 global e-mail hotline.

Communications & Training

>15,000

Directors and employees received compliance e-training on key Group policies and requirements.

Under the second Line of Defence, significant business units are required to conduct a self-assessment exercise on an annual basis. This exercise requires such business units to assess the status of their respective internal controls and risk management via self-assessment. Where required, action plans are developed to remedy identified control gaps. Under the Group's Enterprise Risk Management Framework, significant risk areas of the Group are also identified and assessed, with systems, policies and processes put in place to manage and mitigate the identified risks. Regulatory Compliance supports and works alongside business management to ensure relevant policies, processes and controls are effectively designed, managed and implemented to ensure compliance risks and controls are effectively managed.

Under the third Line of Defence, to assist the Group to ascertain the adequacy and effectiveness of the Group's internal controls, business units are required to provide the Group with written assurances as to the adequacy and effectiveness of their system of internal controls and risk management. Internal and external auditors provide their assessments based on the work performed during the year.

Enhanced Compliance Programme

At Keppel, integrity is a core value. As our Code of Conduct states, "we care how results are achieved, not just that they are attained." Implementing that core value through enhancing our regulatory

compliance process and by reminding every Keppelite of that value is a focus of attention for us, our boards, and officers and line managers across the globe.

➤ *Read more about the Group's enhanced compliance programme on pages 84 to 87 of our Report to Shareholders 2018.*

Communication & Training

The Group continuously ensures that its compliance policies and procedures are communicated effectively to all employees and directors. An e-training and assessment exercise covering all key policies, including Keppel's Enhanced Code of Conduct, is carried out on an annual basis, and targeted training focused on line manager responsibilities and employee obligations were conducted in FY 2018. For FY 2018, over 15,000 directors and employees have completed the e-training and toolbox training.

Reporting & Investigation

Keppel Whistle-Blower Policy took effect on 1 September 2004 and was enhanced on 15 February 2017 to encourage reporting in good faith 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.

➤ *Read more about our Risk Management & Internal Controls framework on pages 83 to 87 of our Report to Shareholders 2018.*

Risk Management

GRI 102-11 | 102-15 | 103-1 | 103-2 | 103-3

We maintain a balanced approach to risk management, undertaking only appropriate and well-considered risks to optimise returns for our shareholders.

As an enterprise that seeks to deliver solutions for sustainable urbanisation, Keppel adopts a balanced approach to risk management, undertaking only appropriate and well-considered risks to optimise returns for our shareholders. Keppel's risk management approach stems from the philosophy of seeking sustainable growth opportunities and creating economic value, while ensuring only appropriate and well-considered risks are assumed.

Risk management is an integral part of the way in which we develop and execute our business strategies. It is consistent with our operating principles and belief that a holistic approach of balancing risks and rewards is key to delivering long-term value and growth for our shareholders.

In 2018, we continued a disciplined pursuit of new opportunities, innovation and revenue streams to safeguard shareholders' interests and the Group's assets. Our robust risk-centric culture and risk management system have enabled us to continue to respond effectively to the dynamic business environment and shifting business demands to seize new value-added opportunities for our stakeholders.

Risk-Centric Culture

Effective risk management hinges not only on systems and processes, but equally on mindsets and attitudes. The Group fosters a risk-centric culture through several aspects.

1. Leadership & Governance

Our management is fully committed to fostering a strong risk-centric culture and consistently demonstrate strong support for risk management in all initiatives. Key messages encouraging prudent risk-taking in decision making and business processes are interwoven into major meetings, speeches and publications.

2. Framework & Values

When considering risks in daily activities, the Group's management and staff are guided by our Enterprise Risk Management (ERM) framework; our core values of integrity, accountability, people centredness and safety, as well as our mission and vision to responsibly deliver sustainable urbanisation solutions in our chosen markets.

3. Process & Methods

An integral aspect of both strategic and operational decision making includes consideration and management of risks at all levels of the businesses. As part of the Group's framework and process, the appropriate tools, techniques and risk management methodologies are applied, along with the requisite domain knowledge capabilities, in making decisions.

4. Training & Communications

Training and communications are conducted regularly to enhance risk management competency across the Group. Through various forums and in-house publications, including different modes of training, risk management is reinforced as a discipline and developed through awareness and practice.

5. Transparency & Competency

We promote transparency in information sharing and escalation of risk-related matters. Risk identification and assessment are embedded in key control processes. A Group-wide survey is conducted periodically to assess risk awareness amongst employees.

6. Ownership & Accountability

To maintain our standards in risk management, we advocate ownership and accountability through the employee performance evaluation process.

Enterprise Risk Management Framework

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



Through the Board Risk Committee (BRC), the Board provides valuable advice to management in formulating and implementing the risk management framework, policies and guidelines. Keppel's management surfaces significant risk issues for discussion with the BRC and the Board to keep them apprised of key issues in a timely manner. The terms of reference for the BRC are disclosed on page 89 of Keppel Corporation's Report to Shareholders 2018. The Board has defined three risk tolerance guiding principles for the Group, which serves to determine the nature and extent of the significant risks which the Board is willing to take in achieving our strategic objectives.

These principles are:

1. Risk taken should be carefully evaluated, commensurate with rewards and in line with the Group's core strengths and strategic objectives.
2. No risk arising from a single area of operation, investment or undertaking should be so huge as to endanger the entire Group.
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 83 to 87 of Keppel Corporation's Report to Shareholders 2018 under Principle 11 (Risk Management and Internal Controls), facilitates management and the BRC in determining the adequacy and effectiveness of the Group's risk management system.

Risk Management

We are cognisant of the dynamic environment in which the Group operates and constantly enhance the framework and systems where necessary, to ensure strong risk governance across the Group.

Keppel's ERM framework, a component of Keppel's System of Management Controls, provides the Group with a systematic approach to risk management. It outlines the reporting structure, monitoring mechanisms, processes and tools, as well as policies and limits, applied in addressing the Group's key risks.

Our ERM framework is constantly refined to ensure it remains relevant in our operating environment and where required, is tailored to the requirements of each business unit (BU) depending on specific industry practices and objectives. The framework takes reference from the Singapore Code of Corporate Governance, ISO 31000 risk management guidelines, ISO 22313 business continuity

management system, and the Guidebook for Board Risk Committees.

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

We keep abreast of the latest developments and best practices through participation in industry seminars and interacting with risk management practitioners.

Keppel adopts a balanced approach to risk management. Whilst our financial performance and operating environment are influenced by a vast range of risk factors, we recognise that not all risks can be eliminated. We are committed to

undertaking appropriate and well-considered risks to optimise returns for the Group.

Proactive Risk Management

Effective risk management requires a dynamic approach and we recognise the need to continually evolve our framework and processes to ensure our risk identification and mitigation remains effective. We remain vigilant against emerging threats that may affect our different businesses. We have a dedicated focus group across BUs to identify, discuss and analyse emerging risks which may have an impact on the Group's activities. Where applicable, these are escalated for discussion and consideration at various governance committees.

Through close collaboration with stakeholders and constant vigilance, we will continue to proactively assess our risks and review our risk management system to ensure that our ability to manage and respond to threats remains adequate and effective.

Material Risks	Issues	Mitigating Actions
STRATEGIC RISKS		
Market & Competition	A large part of the Group's strategic risks include market driven forces, evolving competitive landscapes, changing customer demands and disruptive innovation. The Group remains vulnerable to several external factors including uncertainties in the global economy, implications of recent and impending geo-political developments, intense competition in our core markets and threats of disruptive technology. These risks receive constant high-level attention throughout the year.	<p>Strategy meetings are held across the Group to review business strategies, formulate responses and take pre-emptive action against these risks.</p> <p>The BRC guides the Group in formulating and reviewing risk policies and principles. These policies and principles are subject to periodic reviews to ensure that they continue to support business objectives and are aligned to our risk tolerance levels. Taking into consideration the prevailing business climate and the Group's risk tolerance, the policies aim to address market and competition risks effectively and proactively.</p>
Strategic Ventures, Investments & Divestments	We have an established process for evaluating investment and divestment decisions including strategic ventures. Investments, divestments and strategic ventures are monitored to ensure that they are on track to meet the Group's strategic intent, investment objectives and returns, and where required, the need for timely recalibration of strategies in response to the changing business environment. These investment decisions are guided by investment parameters set on a Group-wide basis.	<p>Together with the Board, the Investment and Major Project Action Committee (IMPAC) guides the Group in taking considered risks in a controlled manner, exercising the spirit of enterprise and prudence to earn the best risk-adjusted returns on invested capital across our businesses.</p> <p>Investment risk assessment involves rigorous due diligence, feasibility studies and sensitivity analyses of key assumptions and variables. Some of the critical factors considered include alignment with Group strategy, financial viability, country-specific political and regulatory developments, contractual risk implications, as well as lessons learnt. The investment portfolio is constantly monitored to ensure that performance is on track to meet the Group's strategic intent and investment returns.</p>
Human Resources	We continue to maintain a strong emphasis on attracting and building a deep pool of talent. This includes nurturing employees, maintaining good industrial relations and fostering a conducive work environment for all employees. The Group is focused on strengthening succession planning and bench strength, as well as building new organisational capabilities to drive business growth whilst maintaining our status as an employer of choice.	In talent development programmes, we emphasise the importance of having a risk-centric mindset and endeavour to inculcate the ability to identify and assess risks, develop and implement mitigation actions, as well as monitor risks. Keppel Leadership Institute, established as a global centre to groom leaders and equip employees with the capabilities to drive and support Keppel's growth, helps to inculcate this mindset by embedding risk management in its key leadership courses.

Material Risks	Issues	Mitigating Actions
OPERATIONAL RISKS		
Project Management	<p>From project initiation through to completion, risk management processes are an integral part of project management activities to facilitate early risk detection and proactive management. The Group adopts a systematic assessment and monitoring process to help manage the key risks in projects. Particular attention is given to technically challenging and high-value projects, including greenfield developments and deployment of new technology and/or operations in new geographies. Projects are managed in accordance with the respective country's environmental laws and labour practices.</p>	<p>At the project execution stage, we execute project reviews and quality assurance programmes to address issues involving cost, schedule and quality. Project Key Risk Indicators are used as early warning signals to determine if remedial actions are required.</p> <p>In addition, we conduct knowledge-sharing workshops to share best practices and lessons learnt across the Group. These processes help to ensure that projects are completed on time and within budget, without compromising safety and quality standards, as well as contract obligations.</p>
Health, Safety & Environment	<p>Maintaining a high level of Health, Safety and Environmental (HSE) standard is of paramount importance to the Group. We constantly strive to raise awareness, maintain vigilance and foster a strong HSE-centric culture across the Group and particularly at the ground level.</p>	<p>Key initiatives include driving a Zero Fatality Strategy with a roadmap focused on aligning Hazard Identification Risk Assessment standards across our global operations, enhancing competency of employees performing safety-critical tasks, strengthening operational controls, deploying standard Root Cause Analysis across the Group, as well as developing more proactive and leading risk indicators/matrices to monitor HSE performance in each BU.</p> <p>Environmental management practices in key operating sites are also closely monitored. As a Group, we continue to embrace and leverage technology to improve HSE processes and systems. Testament to the Group's concerted efforts in safety, Keppel clinched 28 awards at the Workplace Safety and Health (WSH) Awards for exemplary safety performances, implementation of strong WSH management systems, as well as efforts to create solutions that improve workplace safety.</p>
Business & Operational Processes	<p>We continue to streamline our business processes. We have established common shared services platforms which enable us to better manage costs while enhancing efficiency, productivity, compliance and controls.</p>	<p>Recognising the need to keep at the forefront of technology, we have embarked on digitalisation initiatives and continue to take measured steps, applying a risk-based approach, to embrace the appropriate technologies in optimising our processes.</p> <p>We have adopted ISO standards and certifications to achieve standardisation of some of our processes and kept up with best practices. In addition, procedures relating to defect management, operations, project control and supply chain management continue to be refined to improve the quality of deliverables. We conduct regular reviews of policies and authority limits to ensure that they remain relevant in meeting changing business requirements.</p>
Business Continuity	<p>We are committed to enhancing operational resilience with a robust Business Continuity Management (BCM) Plan that will equip us to respond effectively to business disruptions, ensuring that critical business functions continue to operate with minimal impact to our people, operations and assets.</p> <p>As a Group, we are cognisant of the risk of natural disasters, terrorism and cyber threats, and we seek to maintain operational resilience through regular review and testing of our BCM plans under different threat scenarios. The BCM Steering Committee provides direction and guidance to ensure BCM plans across the Group are effectively managed.</p>	<p>With the increasing risk of cyber threats and attacks, we have increased our efforts and focus on ensuring adequacy of our defense against the risk and our response plans in the event of an incident. The Group maintains a close watch and keeps abreast of evolving techniques and threats in order to develop the appropriate mitigation measures. We constantly evaluate our ongoing state of readiness against business disruptions to ensure that plans remain current and relevant.</p> <p>Crisis management and communication procedures have also been embedded into the Group's BCM processes. These procedures are constantly refined to allow us to respond in an orderly and coordinated way, and to expedite recovery. We are focused on building capabilities to respond to crises effectively while safeguarding our people and assets, and the interests of our stakeholders.</p>
Information Technology	<p>Information Technology risks are an integral aspect of our processes. The Group has in place an Information Technology (IT) governance structure and IT security framework to address both general IT and data security controls, as well as evolving IT risks including cybersecurity, theft or loss of confidential data and data integrity.</p>	<p>Our IT security, governance and controls continue to be strengthened through the refinement and alignment of our IT policies, processes and systems, and the consolidation of servers and storages. We have also appointed IT security officers and instituted policies on end-user computing and safeguarding information, as well as IT self-assessments to identify security gaps.</p> <p>Our pool of dedicated IT experts enables us to keep abreast of the latest developments, innovation and threats in the IT domain. They are assisted by Keppel Technology and Innovation to assess risks at various levels, and to further the adoption of technology and innovation within Keppel. Extensive training and assessment exercises have been conducted on user security education to heighten overall awareness of IT threats. Measures and considerations have also been taken to safeguard corporate data assets against loss of information, data security and service disruption of critical IT systems.</p>

Risk Management

Material Risks	Issues	Mitigating Actions
COMPLIANCE RISKS		
GRI 205-1		
Laws, Regulations & Compliance	<p>Given the geographical diversity of our businesses, we closely monitor developments in laws and regulations of countries where the Group operates, to ensure that our businesses and operations comply with all relevant laws and regulations. We regularly engage with local government authorities and agencies to keep updated on changes to laws and regulations, ensuring that we can assess our exposures and risks effectively.</p> <p>We recognise that non-compliance with laws and regulations not only have significant financial impact but have potentially detrimental reputational impact on Keppel. While we have significantly strengthened our regulatory compliance framework, we remain fully committed to enhancing our regulatory compliance policies and processes, ensuring that the Group maintains a high level of compliance and ethical standards in the way in which we conduct our business. Our emphasis is clear and consistently reiterated. We have zero tolerance for fraud, bribery, corruption and violation of laws and regulations.</p>	<p>In 2018, we made significant progress in our regulatory compliance initiatives, ensuring that compliance principles are embedded in our activities, and implementing best practices from industry leaders as we develop and strengthen our compliance framework.</p> <p>Significant risks issues, such as risks relating to corruption in all areas of operations within the Keppel Group where we have operational control, are surfaced by management and assessed by the Board. With respect to corruption, significant risks include areas where external agents are used for business development.</p> <p>➤ <i>More details on the steps taken to operationalise our regulatory compliance framework are set out on pages 37 and 38.</i></p>
FINANCIAL RISKS		
Fraud, Misstatement of Financial Statements & Disclosures	<p>We maintain a strong emphasis on ensuring that financial statements are accurate and presented fairly in accordance with applicable financial reporting standards and frameworks.</p>	<p>Regular external and internal audits are conducted to provide assurance on accuracy of financial statements and adequacy of the internal control framework supporting the statements. Where required, we leverage the expertise of the engaged auditors in the interpretation of financial reporting standards and changes.</p> <p>We conduct regular training and education programmes to enhance competency of the Group's finance managers. Keppel's System of Management Controls framework outlines our internal control and risk management processes and procedures.</p>
Financial Management	<p>Financial risk management relates to our ability to meet financial obligations and mitigate credit, liquidity, currency and interest rate risks. Policies and financial authority limits are reviewed regularly to incorporate changes in the operating and control environment.</p> <p>We are focused on financial discipline and seek to deploy our capital to earn the best risk-adjusted returns for shareholders, while maintaining a strong balance sheet to seize new opportunities.</p>	<p>Our procedures include the evaluation of counterparties and other related risks against pre-established internal guidelines. We conduct impact assessments and stress tests to gauge the Group's exposure to changing market situations, to enable informed decision making and implementation of prompt mitigating actions. We also regularly monitor our asset concentration exposure in countries where we have a presence to ensure that our portfolio of assets, investments and businesses are well diversified and adequately safeguarded against the systemic risks of operating in a specific geography.</p> <p>➤ <i>For more details, please refer to page 66 of Keppel Corporation's Report to Shareholders 2018.</i></p>

Regulatory Compliance

GRI 102-15

The tone for regulatory compliance is driven from the top. Guided by our core values, we are committed to building a more disciplined and sustainable company.

Guided by our core values and enhanced code of conduct, we are fully committed to ensuring that compliance is a central pillar of our management and an integral part of our corporate culture and business processes. We will do business the right way and comply with all applicable laws and regulations wherever we operate. We strive to achieve outstanding performance, whilst maintaining the highest level of ethical integrity.

Our tone for regulatory compliance is clear and consistently reiterated from the top and throughout all levels of the Group. We have zero tolerance for fraud, bribery, corruption and violation of laws and regulations.

Strategic Objectives

Following the improvements and enhancements to the compliance framework and processes, we remain focused on ensuring consistency in application and operational effectiveness of the compliance programme across the Group. We are developing a compliance

framework that commensurate with the size, role and activity of our businesses, including appropriate compliance control systems, to be able to effectively detect and remedy gaps. Most importantly, we remain focused on rebuilding our credibility and reputation with our stakeholders, and building a sustainable compliance framework that supports the Group's growth.

Governance Structure

Our Regulatory Compliance Governance Structure is designed to strengthen our corporate governance. The Board Risk Committee (BRC) supports the Board in its oversight of regulatory compliance and is responsible for driving the Group's implementation of effective compliance and governance systems. The Group Risk & Compliance department serves as a secretariat to the BRC, assessing and reporting on the Group's compliance risks, controls and mitigations.

The Group Regulatory Compliance Management Committee (Group RCMC) is chaired by Keppel Corporation's Chief Executive Officer and its members includes all business unit (BU) heads. The role of the Group RCMC is to articulate the Group's commitment to regulatory compliance, direct and support the development of over-arching compliance policies and guidelines, and facilitate the effective implementation of policies and procedures.

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, over-arching compliance policies and guidelines for the Group, as well as reviewing training and communication programmes.

Each BU has a dedicated Compliance Lead, supported by the respective risk and compliance teams, and is responsible for driving and administering the compliance function and agenda for the BU. This includes providing support to BU management with subject matter expertise, process excellence and regular reporting to ensure that compliance risks are effectively managed and mitigated. Across the Group, continued recruitment efforts are in progress to strengthen the Compliance team with additional professional and experienced compliance officers.

Under the direction of the Group RCMC and Group RCWT, BUs working in partnership with their respective risk and compliance teams are responsible for implementing the Group's Code of Conduct and regulatory compliance policies and procedures. They are also responsible for ensuring that risk assessments in relation to material regulatory compliance risks are conducted, and that control measures are adequate and effective, to mitigate the identified risks which the BUs may face.

Regulatory Compliance Framework

As part of ongoing efforts to strengthen our regulatory compliance framework, we have defined our focus on compliance covering broadly the following areas: culture; policies and procedures; training and communication; key compliance processes; compliance risk assessment, reviews and monitoring; and compliance resources.

A key aspect of the framework is the structure of the compliance organisation. Our reporting structure of the compliance organisation reinforces independence of the function. The Head of Group Risk & Compliance reports directly to the Chairman of the BRC. Similarly, the Compliance Leads of the BUs have established direct reporting lines to the respective Audit or Board Risk Committees. Furthermore, BU Compliance Leads report directly to the Head of Group Risk & Compliance. This reporting structure reinforces independence of the function and enables senior management, including members of the Board, to provide continuous, clear and explicit support to the Group's compliance programme.

Culture

Culture and mindset are critical in ensuring the effectiveness of our compliance programme. Management has a key role in setting the right tone and walking the talk. The tone for



Regulatory Compliance

full regulatory compliance must cascade down the organisation. We have posters on anti-bribery, anti-corruption and reporting mechanisms that are exhibited in our offices globally to reinforce the message. Individual performance measures to influence personal behaviour, and periodic compliance-focused messages are also delivered by BU heads to employees.

Policies & Procedures

GRI 102-16 | 102-17

Employee Code of Conduct

We have a strict 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 carrying out their duties and responsibilities to the highest standards of personal and corporate integrity. It covers areas from conduct in the workplace to business conduct, including clear provisions on prohibitions against bribery and corruption, and conflicts of interests amongst others. We continually review and enhance our Code to ensure that it stays updated and properly instructive.

Appropriate disciplinary action, including suspension or termination of employment, will be taken if an employee is found to have violated the rules set out in the Code. The Code of Conduct is also provided to all third parties who represent Keppel in business dealings, including joint venture partners, who are required to acknowledge understanding and compliance with the requirements of the Code. We ensure that disciplinary actions are carried out consistently and fairly across all levels of employees.

Supplier Code of Conduct

The acknowledgement to abide by our supplier code of conduct, which was developed to integrate Keppel's sustainability principles across our supply chain, and positively influence the environmental, social and governance performance of our suppliers, is mandatory for all key suppliers of the Keppel Group.

The areas covered within the supplier code of conduct include proper business conduct, fair labour practices, stringent safety and health standards, and responsible environmental management.

Whistle-Blower Policy

Keppel's Whistle-Blower Policy encourages the reporting of suspected bribery or misconduct through a clearly-defined process and reporting channel, by which reports can be made in confidence and without fear of reprisal.

The process is reviewed regularly. In 2018, the whistle-blower hotline was outsourced

to an external and independent service provider to cater to language and time zone requirements across the different countries in which the Group operates.

Compliance Policies

We maintain a comprehensive list of policies covering compliance-related matters including anti-bribery, gifts & hospitality, agent fees, donations & sponsorships, solicitation & extortion, conflict of interest, and insider trading amongst others. These policies are reviewed periodically to ensure that they commensurate with the activities in the jurisdictions in which the Group operates. Group policies are applicable to all BUs and unless the jurisdictional regulatory requirements are more stringent, these policies represent the minimum standard for the Group.

Compliance remains a key focus for the Group. Our written policy on commitment to compliance with anti-corruption laws was strengthened in 2018 with the issuance of the Global Anti-Bribery Policy, consolidating the multiple relevant policies which form part of our compliance programme. The procedures and rules defined in the Policy encapsulates key points of the Group's zero-tolerance approach towards bribery. In November 2018, Keppel Offshore & Marine's Singapore entities achieved the ISO 37001 certification on Anti-Bribery Management System. We continue to work towards certification for the other entities within Keppel Offshore & Marine and the Group.

Training & Communication

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 for directors, officers and employees. The content of the training covers key compliance policies, and directors, officers and employees are required to complete assessments at the end of the training to successfully mark completion. As part of the annual training, directors, officers and employees are also required to formally acknowledge their understanding of policies and declare any potential conflicts of interest. Toolbox training on anti-bribery are also carried out for industrial/general workers.

We continue to focus on refining our compliance training programmes and curriculum for new and existing employees. We are also focused on developing and tailoring training content depending on the target audience.

In addition to policy-related training programmes, we conduct trainings focused

on the line manager's responsibilities in developing the desired culture and mindset regarding compliance. These responsibilities 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.

Training focused on building risk and compliance competencies are also organised to ensure that we are apprised on changes in approaches, best practices and tools.

Our BU risk and compliance teams conduct periodic site visits to all locations in which the Group operates to raise awareness of compliance risks. We also leverage opportunities at various management conferences and employee meetings to stress the importance of compliance.

Key Processes

Due Diligence

We continue to improve our risk-based due diligence process for all third party associates who represent the Keppel Group in business dealings, including our joint venture partners, to assess the compliance risk of the business partner. In addition to background checks, the due diligence process incorporates requirements for third party associates to acknowledge understanding and compliance with our Code of Conduct.

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.

Risk Assessment, Review & Monitoring

GRI 102-30

We continue to develop our compliance resources and framework. This will enable the Compliance team to conduct independent risk assessments to identify and mitigate key compliance risks. Regular discussions are held with all business units, focusing on risk assessments including specific compliance risks identified for their respective businesses. Separately, independent reviews of compliance risks are carried out within the scope of internal audits including thematic reviews of the effectiveness of key aspects of our compliance programmes.

Resources

We recognise the need for an experienced compliance team to effectively support the business in compliance advisory, as well as to ensure that compliance programmes and controls are effectively implemented. Senior management, including members of the Board, are fully committed to ensuring that we build a strong compliance function.

Environmental Management

We are committed to improving resource efficiency and reducing our environmental impact.



2018 Targets

Achieve a 28.8% reduction in carbon emissions intensity by 2030 from 2010 levels, in addition to the target of a 16% improvement in carbon emissions from 2020 business-as-usual levels.

Improve the environmental management systems of key business units to meet the requirements of the revised ISO 14001 standard.

Develop solutions that minimise environmental impact.

Increase the generation and usage of renewable energy in our operations.

2018 Performance

Achieved a 24% average reduction in emissions intensity from our 2010 baseline.

Installed solar panels with a capacity of 5.2 megawatt peak (MWp) at Keppel Offshore & Marine's (Keppel O&M) yards.

All business units have improved their environmental management systems to transition to the revised ISO 14001 standard.

Embarked on a pilot project to make Keppel Bay Tower the first Super Low-Energy High-Rise Existing Commercial Building in Singapore.

Corporate office at Keppel Bay Tower powered by clean energy from end-2018, through retirement of renewable energy certificates.

2019 Targets

Achieve a 28.8% reduction in carbon emissions intensity by 2030 from 2010 levels, in addition to the target of a 16% improvement in carbon emissions intensity from 2020 business-as-usual levels.

Increase the generation and usage of renewable energy in our operations.

Review climate change risks and refine climate change strategy.

Topics

Management systems

Sustainable design

Energy efficiency

Carbon emissions

Renewable energy

Water, waste and effluent management

Compliance

SDGs



Environmental Management

Energy Efficiency

812,134 GJ

Of projected energy savings through energy efficiency initiatives implemented in 2018 and from Keppel Land's Green Mark-certified developments, translating to estimated cost savings of about \$55 million.

Water Savings

1,419,628 m³

Of water recycled in Singapore, equivalent to approximately 29% of the Group's water consumption in Singapore.

Overview

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

This environmental performance report includes data from the Group's major subsidiaries in Singapore and overseas operations in which the Group has significant ownership. This includes Keppel O&M and its significant subsidiaries – Keppel FELS, Keppel Shipyard and Keppel Singmarine, Keppel Land, Keppel Infrastructure, Keppel Telecommunications & Transportation (Keppel T&T) and Keppel Capital.

Due to commercial sensitivity, direct energy consumption and carbon emissions arising from Keppel Infrastructure's power generation operations are excluded from this report.

Management Approach

GRI 103-1 | 103-2 | 103-3

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

The implementation of our Group-wide carbon management strategy is led by the energy efficiency committee. The committee sets targets, evaluates the effectiveness of our carbon management efforts, and monitors and reports on performance. The committee comprises

representatives from business units, many of whom are certified energy managers.

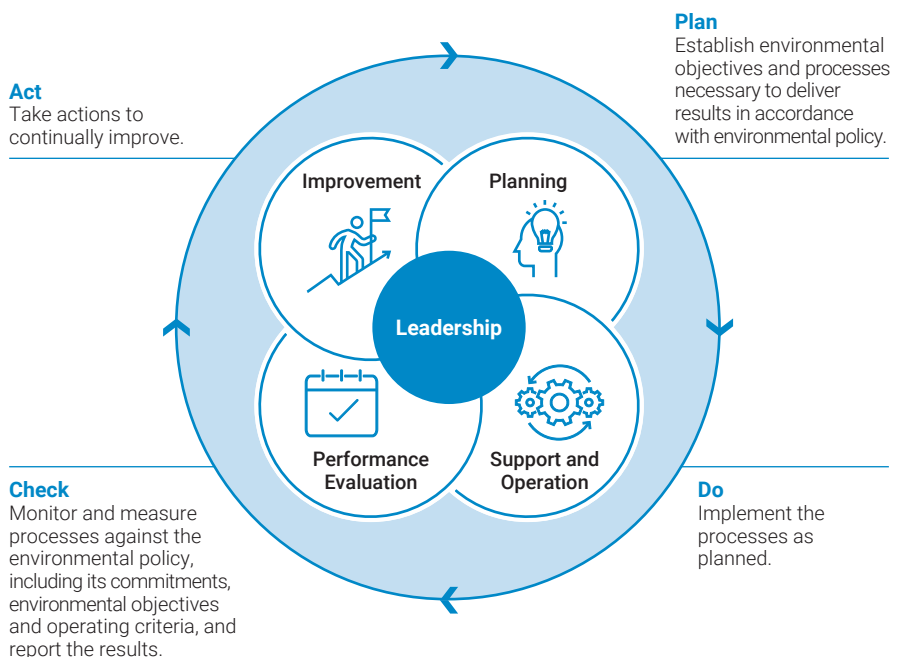
All our key business units are certified to the ISO 14001 environmental management system, which guides how we identify, manage, monitor and control environmental issues. In addition, the rigs and ships we build comply with all six technical annexes¹ of the international convention for the prevention of pollution from ships (MARPOL 73/78) which is the main international convention covering prevention of pollution of the marine environment by ships, while our data centres are certified under the SS 564 Singapore standard for green data centres management system.

Our approach to environmental management covers the following aspects:

- Fulfilling compliance obligations;
- Protecting the environment by preventing or mitigating adverse environmental impacts;
- Enhancing environmental performance;
- Achieving financial and operational benefits that can result from implementing environmentally sound alternatives that strengthen Keppel's market position; and
- Communicating environmental information to relevant interested parties.

¹ The six technical annexes are: Annex I – Regulations for the Prevention of Pollution by Oil; Annex II – Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk; Annex III -Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form; Annex IV – Prevention of Pollution by Sewage from Ships; Annex V – Prevention of Pollution by Garbage from Ships; and Annex VI – Prevention of Air Pollution from Ships.

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



Keppel Corporation's Climate Action Pledge

As a solutions provider for sustainable urbanisation, Keppel Corporation pledges our commitment to support efforts by the international community and the Singapore government in tackling climate change.

Our Climate Action Goals

To factor in environmental considerations in our businesses.	To optimise our operations and processes to enhance energy efficiency.	To invest in green technology and increase usage of renewable sources of energy.	To include more eco-friendly features in our products.	To promote eco-consciousness among our stakeholders.
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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.

Sustainable Design

In line with our mission of providing solutions for sustainable urbanisation, the Group considers environmental factors during the planning and design of our property developments, data centres and warehouses, as well as during their operational phases. Keppel Land, in collaboration with the Building and Construction Authority (BCA), will be incorporating five new and emerging energy-efficient technologies in Keppel Bay Tower, where the headquarters of Keppel Corporation is based.

➔ *Read more about how Keppel Bay Tower is gearing towards becoming a Super Low-Energy Building on pages 46 and 47.*

Separately, following office renovations at Keppel Bay Tower in 2018, the work spaces of Keppel Corporation, Keppel Land and Keppel Capital have been enhanced with a suite of green and healthy features to improve energy efficiency and staff health and well-being. The renovated offices are designed with demand control strategies to minimise wastage including:

- Smart lighting systems that utilise occupancy sensors to continuously adjust lighting levels according to occupancy load;
- Photosensors that dim perimeter lightings when there is sufficient daylight;

- A clean desk policy ensures that no equipment is left switched-on overnight, thereby reducing energy wastage; and
- Copiers with secure printing features help reduce paper wastage.

To recognise Keppel Corporation, Keppel Land and Keppel Capital for their commitment towards environmental protection and efforts in improving staff health and well-being, the BCA and Health Promotion Board (HPB) awarded all three companies the BCA-HPB Green Mark Platinum certification for Healthier Workplaces, a new certification which promotes health and wellness in offices and workplaces.

Energy

GRI 302-1 | 302-4

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, naphtha, piped natural gas, petrol, furnace oil and liquefied petroleum gas.

In 2018, the Group consumed 7,530,345 gigajoules (GJ) of direct energy and 1,818,482 GJ of indirect energy or electricity, compared to 7,271,829 GJ of direct energy and 1,890,734 GJ of indirect energy in 2017.

Our Singapore operations consumed 7,280,286 GJ of direct energy and

1,621,069 GJ of indirect energy in 2018, compared to 7,149,190 GJ of direct energy and 1,643,681 GJ of indirect energy in 2017. The data includes direct energy used in activities carried out by both employees and contractors at our worksites.

Improving Energy Efficiency

The Group is estimated to have saved 812,134 GJ² of energy from its energy efficiency initiatives in 2018 and from Keppel Land's Green Mark-certified developments. The total energy saving is equivalent to about 9% of the Group's total energy consumption in 2018, and translates to estimated cost savings of about \$55 million³ and avoidance of approximately 95,000 tCO₂ emissions⁴.

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 2018 include:

- Equipping data centres with Diesel Rotary Uninterruptible Power Supply (DRUPS) with higher efficiency and lower chemical waste compared to a static UPS, and chilled water cooling systems to reduce electricity consumption requirements. Keppel DC Singapore 3 was re-awarded the BCA-IMDA Green Mark Platinum in 2018. The green features at the facility include an energy-efficient chiller plant system,

² The 812,134 GJ in savings comprise savings from the reduced usage of fossil fuels, such as diesel, and a 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 gigajoules based on the corresponding energy conversion factors for fossil fuels and electricity published in the United Kingdom's Department for Environment, Food and Rural Affairs (DEFRA) 2017 Government GHG Conversion Factors for Company Reporting, whereby 1 kWh = 0.0036 GJ and 1 tonne of diesel = 43.33 GJ.

³ The electricity conversion factor used is based on the United Kingdom's DEFRA 2017 Government GHG Conversion Factors for Company Reporting, whereby 1 kWh = 0.0036 GJ. Estimated monetary savings are calculated based on the average electricity tariff rates in 2018 as published by Singapore Power, whereby 1 kWh = \$0.2447.

⁴ The electricity savings in carbon dioxide equivalent was estimated by multiplying the energy savings in kWh with the Electricity Grid Emission Factor, whereby 1 kWh = 0.4244 kg CO₂, published by Singapore's Energy Market Authority.

Environmental Management

motion sensor and zone control for data centre suites as well as flywheel-powered DRUPS.

- Changing high bay lighting to T5 lamps which are more energy efficient. In 2018, 49 T5 lamps were installed in Keppel Logistics' facilities in Singapore.

Renewable Energy

The Group has also continued to promote the generation and usage of renewable energy. Keppel O&M and Keppel Infrastructure are collaborating on a solar leasing project at Keppel O&M's yards. The solar panels at Keppel O&M's yard have an installed capacity of 5.2 MWp, and additional solar panels are progressively being installed. In addition, a portion of the renewable energy certificates generated through this initiative is being transferred to Keppel Corporation, allowing the corporate office at Keppel Bay Tower to be fully

powered by clean energy from the end of 2018 through the retirement of these certificates⁵.

Water

GRI 303-1 | 303-3

Water is a precious resource. The Group continues to strengthen its water conservation efforts through initiatives such as promoting water-saving practices, adopting water-efficient technologies and equipment as well as implementing process improvements.

The total water consumption of the Group consists of potable water (water from local catchment and imported water), NEWater (treated wastewater from sewage), recycled water and water drawn from rivers. The Group consumed 6,068,582 cubic metres (m³) of water in 2018, an increase of 19% compared to 5,111,238 m³ in 2017.

Environmental Data

GRI 302-1 | 303-1 | 303-3 | 305-1 | 305-2 | 305-7 | 306-2

	2016	2017	2018
Global Operations			
Direct Energy Consumption (GJ)	7,394,690	7,271,829	7,530,345
Indirect Energy Consumption (GJ)	1,820,611	1,890,734	1,818,482
Direct Emissions (tCO ₂)	1,205,749	1,065,179	1,001,025
Indirect Emissions (tCO ₂)	224,146	228,551	237,722
Potable Water Used (m ³)	2,523,902	1,705,917	1,983,358
NEWater Used (m ³)	2,648,455	2,622,096	2,604,498
Recycled Water Used (m ³)	294,361	727,702	1,419,696
River Water Used (m ³)	32,418	55,523	61,030
Recycled Waste (t)	297,137	44,127	561,818
Incinerated Waste (t)	27,948	27,743	18,073
Singapore Operations			
Direct Energy Consumption (GJ)	7,166,393	7,149,190	7,280,286
Indirect Energy Consumption (GJ)	1,595,838	1,643,681	1,621,069
Direct Emissions (tCO ₂)	1,031,948	838,666	829,957
Indirect Emissions (tCO ₂)	191,189	193,615	209,141
Nitrogen Oxides Emissions (mg/Nm ³)			
Keppel Merlimau Cogen Plant	33.03	24.87	28.44
Keppel Seghers Tuas WTE Plant	283.91	137.53	162.13
Sulphur Dioxide Emissions (mg/Nm ³)			
Keppel Merlimau Cogen Plant	7.15	10.12	10.40
Keppel Seghers Tuas WTE Plant	11.68	31.26	67.47
Senoko WTE Plant	68.87	101.90	48.79
Average Particulate Matter Emissions (mg/Nm ³)			
Keppel Seghers Tuas WTE Plant	12.04	8.55	7.88
Senoko WTE Plant	10.75	17.58	5.92
Potable Water Used (m ³)	1,445,304	1,001,254 ¹	872,864
NEWater Used (m ³)	2,586,318	2,622,096	2,604,498
Recycled Water Used (m ³)	294,055	727,646	1,419,628
Recycled Waste (t)	47,263	38,195	29,239
Incinerated Waste (t)	27,929	24,067	18,071

¹ The figure for potable water in 2017 have been restated to account for corrections to historical data.



Keppel Land considers environmental factors during the planning and design of its property developments.

Our operations in Singapore consumed 4,896,990 m³ of water compared to 4,350,996 m³ in 2017.

Water Recycling

The Group recycled a total of 1,419,628 m³ of water in 2018 that was used in its plants in Singapore, which is equivalent to approximately 29% of the Group's water consumption in Singapore. The amount of water recycled in 2018 is almost double the volume recycled than 2017. The increase is largely attributed to the optimisation of the effluent filtration system at Senoko Waste-to-Energy (WTE) Plant, and the redirection of water drained during boiler shutdowns into the recycled water system.

Waste

GRI 306-2

The Group strives to minimise waste generation, increase opportunities for reusing and recycling, as well as treat and dispose waste responsibly where other options are not practicable.

Waste is segregated at our offices, plants and yards to promote reuse and recycling. Used papers from our offices as well as scrap metals and spoilt equipment recovered from our shipyards and WTE plants are sent

for recycling. Hazardous waste generated is handled, stored and disposed in a manner that adheres to best practices and meets local regulatory requirements.

Waste recycled included ferrous scrap, grits, plastic stretch wrap, paper and other office consumables. In 2018, the Group recycled 561,818 tonnes (t) of refuse, which is a significant increase from 44,127 t of waste in 2017. The increase was largely due to increased amounts of scrap metal from Keppel AmFELS in the US and Keppel Batangas Shipyard in the Philippines, as yard activities picked up, which contributed to a combined amount of 532,579 t. Our Singapore operations recycled 29,239 t of waste in 2018, a decrease from 38,195 t recycled in Singapore the previous year.

As a Group, a total of 18,073 t of waste was sent for incineration in 2018, which is approximately a 35% decrease compared to 27,743 t in 2017.

In land-scarce Singapore, refuse is incinerated to reduce the volume of waste and to remove harmful substances before disposal at the landfill. A total 18,071 t of waste was sent for incineration in 2018,

registering a 25% decrease compared to 24,067 t in 2017, due to changes in business activities.

As incineration of refuse is prohibited or unavailable in some countries where we operate, a total of 131,506 t of municipal waste was disposed at landfill sites in 2018, an increase over 1,539 t in 2017.

Emissions & Effluents

GRI 305-1 | 305-2 | 305-5 | 305-7

Emissions Intensity Targets

Keppel aims to achieve a 16% improvement in carbon emissions intensity from 2020 business-as-usual levels. This is based on the national targets which the Singapore government had disclosed in 2009.

In support of the Paris Agreement, Singapore announced its intended nationally determined contribution of reducing greenhouse gas (GHG) emissions intensity by 36% from 2005 levels by 2030. In line with the government's commitment, we have set a long-term target of a 28.8% reduction in carbon emissions intensity from 2010 levels by 2030 for our global operations⁵. Our target was derived by adjusting the national target to a shorter timeframe, as data prior to 2010 is unavailable.

⁵ The renewable energy certificates allocated to Keppel Corporation's corporate office for the period from December 2018 will be retired in July 2019.

⁶ In calculating emissions intensity reductions, each business division first computes its base year (i.e. 2010) emissions intensity using a normalising factor relevant to its business activity. The total emissions intensity reduction is the difference in the Group's average emissions intensity between the base year and the current year in which the data is reported. The normalisation factors for our business divisions are based on their key activities and industry best practices. They are as follows: m² of gross floor area for Keppel Corporation and Keppel Land, million man-hours for Keppel FELS, Keppel Shipyard, Keppel Singmarine and Keppel Logistics; tonnes of refuse incinerated for our WTE plants; million kWh for City Gas; volume of water produced for SingSpring Desalination Plant; volume of NEWater produced for the Ulu Pandan NEWater Plant; refrigeration tonnes per hour for our district heating and cooling plants; and kilowatt of IT power for Keppel Data Centres.

Environmental Management

As at end-2018, our operations in Singapore and overseas⁷ have achieved a 24% average reduction in carbon emissions intensity from our 2010 baseline⁸.

We are on track to achieving the 2020 target of a 16% improvement in carbon emissions intensity.

The Singapore government implemented a carbon tax in 2019. The carbon tax is set at a rate of \$5 per tonne of GHG emissions (tCO₂) from 2019 to 2023. Singapore will review the carbon tax rate by 2023, with plans to increase it to between \$10 and \$15/tCO₂ by 2030. The tax is applied upstream, for example, on power stations and other large direct emitters. The carbon tax would have an impact on the business cost, which would in turn impact project economics. To mitigate the impact of the carbon tax, the Group has continued to improve our energy efficiency and reduce our carbon footprint, particularly for businesses that are energy intensive.

Carbon Emissions⁹

In 2018, total direct emissions from the use of fuels across the Group and the

incineration of waste at WTE plants amounted to 1,001,025 tCO₂, registering a 6% decrease from 1,065,179 tCO₂ in 2017, while indirect emissions from electricity use was 237,722 tCO₂, which is a 4% increase from 228,551 tCO₂ in 2017.

Direct emissions for Singapore operations was 829,957 tCO₂, comparable to 838,666 tCO₂ in 2017. Indirect emissions from our Singapore operations was 209,141 tCO₂, compared with 193,615 tCO₂ in 2017.

Other Emissions & Effluents

Keppel Infrastructure continues to actively manage the emissions from its operations. Nitrogen oxides and sulphur dioxide emitted from the three plants under Keppel Infrastructure remain far below the emission standards of 700 milligrams per normal cubic metre (mg/Nm³) and 500 mg/Nm³ respectively, as stipulated by Singapore's National Environment Agency (NEA) Code of Practice on Pollution Control.

In 2018, dust or particulate matter emitted by Senoko WTE Plant and Keppel Seghers

Tuas WTE Plant were 5.92 mg/Nm³ and 7.88 mg/Nm³ respectively, which were well below the NEA emission standard of 100 mg/Nm³. Variations in emissions are dependent on the type of municipal refuse incinerated by the plants.

All trade effluent from our operations are treated and discharged to water courses or sewer systems in accordance with the environmental discharge limits and effluent standards in the countries of operation.

Compliance

GRI 306-3 | 307-1

There were no reports of spillages, and no sanctions pertaining to spillages that were administered by Singapore or overseas authorities on the Group in 2018.

In 2018, the main contractor appointed by Keppel Land for a residential project in Singapore was fined \$1,000 for creating conditions favourable for mosquito breeding at the construction site. Mitigating actions have since been taken to prevent recurrence.





1

Keppel DHCS' district cooling plant at Changi Business Park generates solar energy through the building-integrated photovoltaics installed on the rooftop and building facade.

2

The David Malcolm Justice Centre, which Keppel REIT owns 50% interest in, is the first building in Perth, Australia, to attain the Green Building Council of Australia's 6 Star Green Star Performance rating.

⁷ Excludes Keppel O&M's operations abroad. We are working to progressively include all overseas facilities in our monitoring of emissions intensity.

⁸ Due to commercial sensitivity, data from Keppel Merlimau Cogen is excluded from the calculation.

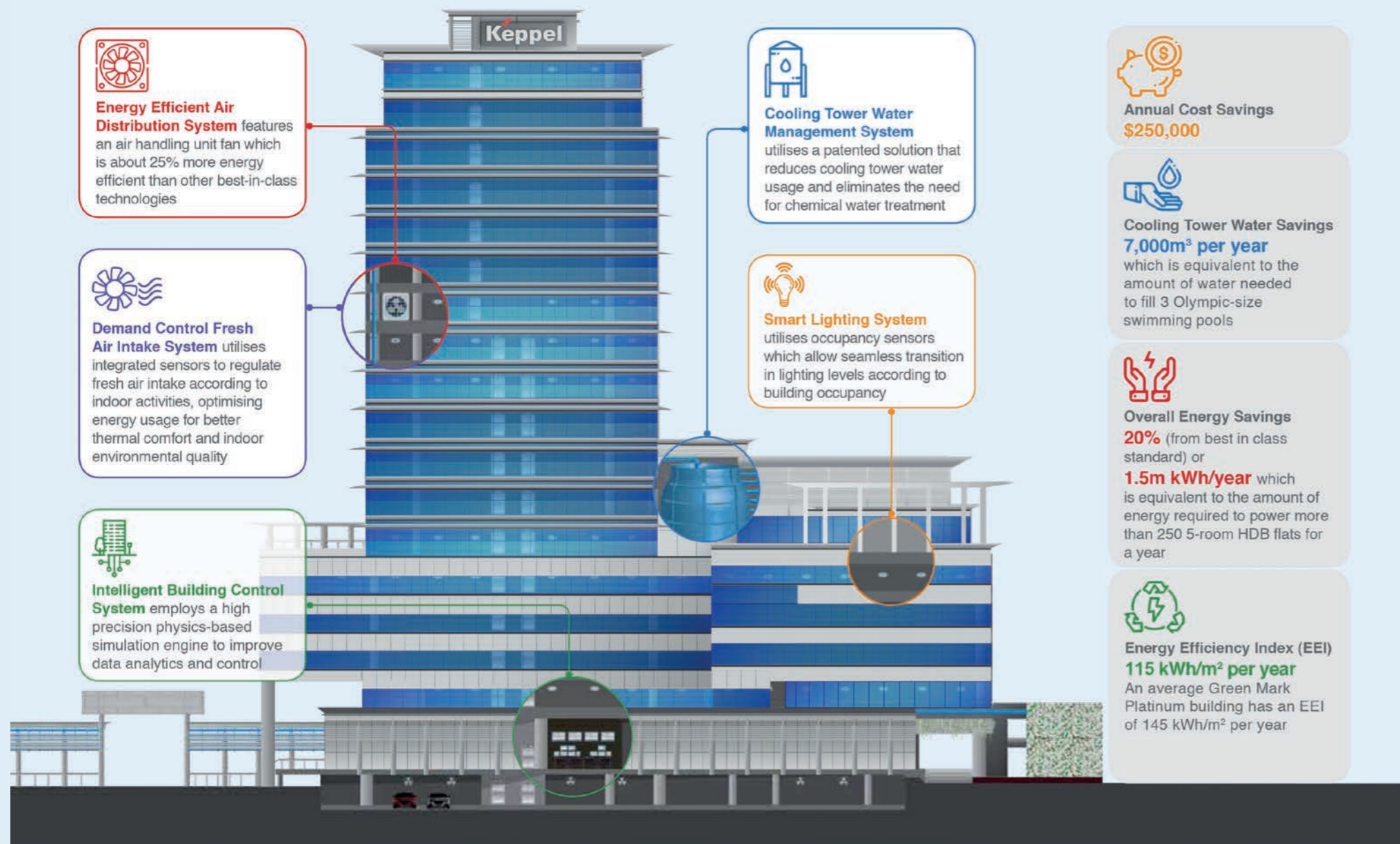
⁹ The GHG conversion factors used for Scope 1 (direct emissions) are based on the United Kingdom's DEFRA 2017 Government GHG Conversion Factors for Company Reporting. The GHG conversion factors for Scope 2 (indirect emissions) are based on the "Electricity Grid Emission Factor" for 2017 from Singapore's Energy Market Authority. The GHG emission Scopes 1, 2 and 3 are defined by the GHG Protocol, whereby Scope 1 refers to emissions from company owned and operated facilities, machines, vehicles, etc. The primary sources of energy consumed on site by our operations are diesel, liquefied petroleum gas, naphtha, piped natural gas, liquefied petroleum gas, compressed natural gas, acetylene, and refrigerants – R22, R407C, R410A, R22, R407C, R410A; Scope 2 refers to emissions from the generation of purchased electricity consumed by the company; Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company, such as employee commuting, business travel and the purchase of office supplies. The Group does not report on Scope 3 emissions as the boundaries for such emissions are very broad, and it is presently not feasible to track such data for a credible Scope 3 assessment.

As there is no existing international benchmark on the amount of carbon emissions from the incineration of waste, Keppel has established a methodology for estimating carbon emissions based on the 2006 IPCC Guidelines for National GHG Inventories (Volume 5 – Waste). Carbon emissions are estimated based on the fossil carbon arising from the incineration of non-organic waste content in the incineration plant, which is dry plastics in Singapore's context. The plastics content and the moisture content in the waste are determined through annual refuse sampling, which is a requirement by NEA for the annual incineration capacity test for each plant. The carbon emission factors for 2017 are one tonne of waste incinerated equals to 0.3139 tCO₂ for Keppel Seghers Tuas WTE Plant, and 0.4283 tCO₂ for Senoko WTE Plant.

Special Focus

Gearing Towards a Super Low-Energy Building

Five selected technologies from the inaugural BCA-Keppel Land Joint Challenge Call will be implemented at Keppel Bay Tower as part of an innovative test-bedding project supported by the BCA Green Building Innovation Cluster.



Keppel Land has been awarded a grant of up to \$1.28 million by the Building and Construction Authority of Singapore (BCA) to implement new and emerging green technologies at the Green Mark Platinum-certified Keppel Bay Tower, where Keppel Corporation is headquartered.

The five technologies that will be piloted at Keppel Bay Tower include a high efficiency air distribution system, a revolutionary cooling tower water management system, integrated sensor technology to optimise fresh air intake, smart lighting solutions as well as an intelligent building control system. This will be the first time that any of these technologies, selected from the BCA-Keppel Land Joint Challenge Call launched in 2017, are implemented in a development in Singapore. In addition, Keppel Land will also explore opportunities to collaborate with Envision, a global leading smart energy management company, to further improve the energy efficiency of Keppel Bay Tower.

With the expected completion of the pilot in 2020, Keppel Bay Tower's annual energy consumption is expected to improve from about 145 kilowatt hour (kWh)/m² per year to 115 kWh/m² per year¹. This is a 20% improvement from its current annual energy consumption. Keppel Land is working with the BCA to certify Keppel Bay Tower under

the new Green Mark for Super Low-Energy scheme, qualifying it as Singapore's first Super Low-Energy High-Rise Existing Commercial Building.

Keppel Land will implement the technologies in certain parts of the 18-storey building, which will allow Keppel Bay Tower to yield estimated overall annual energy savings of approximately 1.5 million kWh. This is equivalent to the amount of energy required to power more than 250 five-room HDB flats in Singapore for one year.

Keppel Land also estimates it can achieve annual water savings of about 7,000 m³, which is equivalent to the amount of water in three Olympic-size swimming pools. These savings in energy and water translate to cost savings of approximately \$250,000 annually.

If the technologies are applied to the entire building, the annual energy consumption of Keppel Bay Tower is estimated to be further reduced to 92 kWh/m² per year.

¹ The estimated annual energy consumption of Keppel Bay Tower is within the Top Quartile of large office buildings in the BCA Building Energy Benchmarking Report 2017.

Suppliers

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



2018 Targets

Further refine the implementation of the Keppel supplier code of conduct.

Work with suppliers to improve performance in accordance with best practices.

2018 Performance

Screened 100% of all new suppliers in accordance with environmental, social and governance (ESG) criteria.

99.8% of qualified suppliers endorsed the Keppel supplier code of conduct or have their own codes which met Keppel's requirements.

Worked with subcontractors to provide safety training for subcontract workers and shared best practices on health, safety and environment (HSE) at contractor and subcontractor forums.

2019 Targets

Screen 100% of all new suppliers in accordance with ESG criteria.

To have 100% of all qualified suppliers endorse the Keppel supplier code of conduct.

Expand the assessments of supplier performance in relation to topics covered in the Keppel supplier code of conduct.

Topics

Screening suppliers

Supplier code of conduct

Due diligence

SDGs



Our Supply Chain

GRI 102-9

Division	Description
Offshore & Marine	<p>Subcontractors work closely with Keppel Offshore & Marine (Keppel O&M) to construct, convert and repair offshore and marine vessels in our yards.</p> <p>Equipment manufacturers supply us with large-scale equipment such as thrusters, engines, winches, switchgear and variable control systems for installation on offshore and marine vessels that we build for clients; as well as specialised purpose-specific equipment such as cryogenic systems and offshore drilling equipment. We also procure shipyard-specific equipment such as cranes, forklifts, transporters and panel line systems.</p> <p>Bulk material suppliers supply us with steel plates, steel profiles, cables, piping and paint; and consumables such as fuel, grits and gases.</p>
Property	<p>Consultants, contractors, and interior design firms provide architectural and engineering design, construction and interior design services for our real estate developments.</p> <p>As a manager of real estate properties, we also employ facility management companies to service our commercial buildings.</p>
Infrastructure	<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 solutions. We also purchase raw materials, such as feedstock, to power the co-generation plant for our Energy Infrastructure business. In addition, we procure goods and services for the operations and maintenance of the plants and facilities.</p> <p>Keppel Data Centres engages external contractors for the construction of new data centre facilities, and facility technicians for regular equipment maintenance.</p> <p>Keppel Logistics engages contractors for transportation services and warehouse operations, as well as for facility maintenance. UrbanFox, our e-commerce logistics arm, engages crowdsourced drivers for last-mile delivery services through its online platform.</p>
Investments	<p>Our managers engage subcontractors to ensure smooth operations and maintenance of our assets. The supply chain for this business also comprises mechanical and electrical equipment suppliers for some of our data centres, as well as property and facility management companies that provide building management, physical security, technical maintenance and routine cleaning services.</p>

Management Approach

GRI 102-10 | 103-1 | 103-2 | 103-3 | 308-1 | 403-7 | 414-1

The Group contracts local and foreign suppliers for our different lines of businesses, and we work closely with our suppliers to make a positive impact on their sustainability performance.

We adhere to local content requirements and are committed towards strengthening 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 our host countries.

Screening New Suppliers

All suppliers are qualified in accordance with our requisition and purchasing policies, and screened based on ESG criteria. We review potential suppliers' industry reputation, track record, financial performance, security practices and certifications, whereby suppliers with certifications for ISO 9001 quality management system, ISO 14001 environmental management system, OHSAS 18001 occupational health and safety assessment series or equivalent are preferred.

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 expected to sign and abide by the Keppel supplier code of conduct, which covers areas pertaining to business conduct, labour practices, safety and health, and environmental management. All Group companies are required to include the acknowledgment and signing of the code, which is available in multiple languages, as part of their supplier selection procedure. In 2018, 99.8% of qualified suppliers endorsed the code or have their own codes which met Keppel's requirements. The remaining 0.2% comprised three suppliers who could not endorse the code. The business unit's compliance team conducted further due diligence and assessed that the three suppliers were fit to be appointed.

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

The Group's enterprise resource planning initiative for companies in Singapore was enhanced in 2018. The enhanced system provides procurement managers across the

Supplier Code Of Conduct

99.8%

Of all qualified suppliers endorsed the Keppel supplier code of conduct or have their own codes which met Keppel's requirements.

Suppliers Screened

100%

Of all new suppliers were screened in accordance with ESG criteria.

Suppliers

Supplier Selection Process



Group with visibility on suppliers that have been qualified or suspended by other business units. All overseas business units are working to be on this common resource planning platform.

Due Diligence

Keppel O&M conducts regular audits of resident subcontractors to ensure their adherence to the International Labour Organisation's 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.

As part of the due diligence process, which covers topics such as fair remuneration, living standards and workplace safety, Keppel O&M conducts monthly interviews with subcontract workers on a rotational basis to determine their levels of satisfaction pertaining to worker welfare. The respective subcontractors' management are required to address any cause for concern.

Keppel Land has in place a five-step supply chain management process that covers the whole lifecycle of its project from its 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 an 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.

Keppel Land also conducts regular site visits and internal audits as part of its supplier due diligence process. When lapses are identified, the company's project team works closely with contractors to implement corrective action plans and preventive measures.

Building Capabilities

We work closely with our contractors and subcontractors to maintain high safety standards throughout our workforce.

[Read more about how Keppel drives high safety standards in its supply chain on pages 57 to 61.](#)

Forums and dialogue sessions with contractors are held regularly to ensure alignment in HSE objectives, share experience and communicate our expectations regarding performance. Our business units have incentive programmes that reward and recognise contractors with exemplary HSE performance.

Keppel O&M conducts outreach programmes and briefings to subcontractor workers to inform them of their employment rights, and the available channels to report any violation of their rights.

Product Excellence

We drive innovation and tap our businesses' expertise and track records to seize new opportunities.



2018 Targets

Invest in research and development (R&D) and innovations that support solutions for sustainable urbanisation.

Maintain high levels of customer satisfaction across our businesses.

Certify products and services to sustainability-related standards and protocols.

2018 Performance

Invested 27% of R&D expenditure on sustainability-linked innovation.

Achieved high scores for customer satisfaction surveys across our business units.

Most of our key business units are certified to meet the ISO 9001 quality management system, ISO 14001 environmental management system and OHSAS 18001 occupational health and safety assessment series.

2019 Targets

Invest at least 20% of R&D expenditure on sustainability-linked innovation.

Maintain high levels of customer satisfaction across our businesses.

Certify products and services to sustainability-related standards and protocols.

Topics

Innovation

Product safety

Customer satisfaction

SDGs



Product Excellence



Green Mark Awards

83

Building & Construction Authority (BCA) Green Mark Awards achieved by Keppel Land to date.

Sustainability Innovation

27%

Of R&D expenditure invested in sustainability-linked innovation.

Overview

Driven by our core values of customer focus as well as agility and innovation, Keppel delivers value-added solutions for sustainable urbanisation, taking into account the evolving needs of our customers.

We continue to drive innovation and tap on our businesses' expertise to seize new opportunities.

We exercise due care and diligence in the design, construction and operation of our products and services to ensure that they do not pose hazards to customers.

Management Approach

GRI 103-1 | 103-2 | 103-3

Most of our key business units are certified to meet the ISO 9001 and ISO 14001 management systems, and OHSAS 18001, demonstrating our commitment to execution excellence.

We regularly monitor and review our operational processes to improve efficiencies and increase productivity. Through regular surveys and reviews, we seek to understand our customers' needs and enhance our products and services accordingly.

In 2018, Keppel Data Centres obtained certification for the ISO 9001 management system, ISO 27001 information security management system as well as EN 50600 Class 3 European data centre standard for Keppel DC Frankfurt 1.

Keppel Land has implemented the ISO 9001 management system for about 30% of its projects under development in Singapore, China and Vietnam. In addition, 100% of Keppel Land's managed development projects and properties in Singapore, China and Vietnam have attained OHSAS 18001. To date, Keppel Land has garnered a total of 83 BCA Green Mark Awards in recognition of its holistic approach to environmental management.

About 70% of Keppel Infrastructure's operations are certified to meet the ISO 9001 and ISO 14001 management systems and OHSAS 18001, demonstrating commitment to execution excellence.

Fostering Innovation

The Keppel technology advisory panel (KTAP) was established in 2004 as a key platform to advance the Group's technology leadership. Its members include eminent business leaders and industry experts from across the world.

KTAP members provide Keppel with technology foresight, advice on strategic projects, and broaden Keppel's networks. Collectively, members' expertise cover a wide range of topics pertaining to sustainable urbanisation, including floating platforms, urban design and liveability, alternative energy and efficiency, as well as communication networks and digitalisation. KTAP convenes once a year with key members of Keppel Corporation's board and senior management.

Keppel Technology and Innovation (KTI) is the Group's platform to co-create and incubate ideas, and serves to sharpen the Group's focus on innovation. Through KTI, we aim to transform how Keppel harnesses technology and innovation to create value for our stakeholders, including innovation in business models and the way we work, as well as how we collaborate with third parties to accelerate change.

In 2018, about 27% of the Group's R&D expenditure was invested in sustainability-linked innovation.

In 2018, Keppel Offshore & Marine (Keppel O&M) developed conceptual designs for innovative floating assets, including wind turbine installation jackup rigs as well as autonomous tugs. Separately, as part of an Industry 4.0 transformation process, Keppel Shipyard implemented several innovation projects in 2018, including the digitisation of computed radiography procedures. Since 2015, Keppel Shipyard has implemented close to

100 initiatives to enhance operations and efficiency, translating to estimated cost savings of about \$19 million.

Keppel Logistics has committed \$17 million for UrbanFox to power its growth efforts in e-commerce channel management, warehousing and inventory management as well as last-mile fulfilment. For the benefit of its customers and delivery partners, UrbanFox will be looking to enhance its analytics and parcel sorting technology platform with automatic geospatial and chronological delivery clustering to achieve gains in efficiency.

Customer Health & Safety
GRI 416-1

The health and safety of our customers in the provision and use of our products and services are of utmost importance to us.

Customer health and safety impacts are assessed for improvement in all our significant product and service categories, and throughout products' life cycles.

We consider proper design, handling, storage and disposal of materials as early as the planning stage. At the project execution stage, we carry out project reviews and quality assurance programmes.

In our business units, functional divisions, including health, safety & environment (HSE), commercial, engineering, and operations, as well as project and plant managers, are collectively responsible for the oversight of product and service safety.

All operational management and quality control systems at Keppel O&M are aligned based on the company's business excellence roadmap and framework. Clients are also briefed on the management systems in place to address project-specific HSE risks. This includes the development of HSE and emergency plans which detail how risks will be managed at each phase of the project. Regular site audits are conducted by the client and our project teams to ensure compliance to the client's HSE standards.



1 Our data centres are certified to have fulfilled the requirements of international standards for operational resilience and information security, among others.

2 UrbanFox will continue to invest in technology and process optimisation initiatives.

3 Keppel Technology and Innovation is the Group's platform to co-create and incubate ideas, and serves to sharpen the Group's focus on innovation.

Product Excellence



We actively seek our customers' feedback and suggestions to help us better understand their needs and translate such feedback to improvements of our products and services.

Keppel Land has adopted the guidelines on design for safety in buildings and structure for all its new projects in Singapore since 2008, in line with Singapore's Workplace Safety and Health Council's design for safety regulations implemented since 2016. The guidelines require safety and health risks to be incorporated into the early conceptual and planning phases of a project, enabling designers and consultants to reduce these risks through good design and effective project planning.

In our Infrastructure division, management systems are in place to improve the operational resilience of our assets. City Gas, which is currently the sole producer and retailer of low-pressure piped town gas in Singapore and also the sole user of the

low-pressure piped town gas network in Singapore, is certified to the ISO 9001 quality management system to ensure that its output meet product specifications.

Keppel Infrastructure Trust's key customers include government agencies and regulatory authorities who oversee the provision of public utilities such as water, waste treatment and electricity. Ongoing efforts such as regular reporting, annual capacity tests and audits help to further ensure the quality and reliability of the company's products and services.

Customer Engagement

GRI 102-43

We actively seek our customers' feedback and suggestions to help us understand

their needs, so that we are able to translate such feedback to improvements of our products and services.

Compliance

GRI 416-2

Keppel subscribes to best practices and complies with all applicable legislations and requirements.

Keppel is not aware of any violation of laws, regulations and voluntary codes pertaining to the provision, use, health and safety of its products and services in 2018.

Keppel's business units abide by the Singapore Code of Advertising Practice by the Advertising Standards Authority of Singapore, as well as similar codes overseas.

Customer feedback 2018 (non-exhaustive)

Division	Feedback Process	2018 Outcomes
Offshore & Marine	Keppel Shipyard conducted customer service satisfaction surveys for 330 completed projects in Singapore.	Maintained a customer satisfaction score of 5.8 out of 6.
	For Keppel FELS, face-to-face customer surveys were conducted once every four months to track customer satisfaction at each project phase.	Obtained an average score of 4.3 out of 6, a slight decrease from an average score of 4.9 in 2017.
Property	Keppel Land conducted service quality surveys for 11 completed projects in Singapore, China, Vietnam and Indonesia.	95.7% of respondents indicated that they were satisfied with the services rendered in the management and operations of the developments, a slight increase from 95% in 2017.
Infrastructure	Keppel Logistics conducts regular customer meetings and annual customer surveys.	Maintained a customer engagement score of 100% in Singapore and 90% in China.
	Keppel Data Centres conducts an annual customer survey.	Scored 3.64 out of 5, up from 3.5 in 2017.
	At City Gas, customer review audits are performed by a third-party consultant.	Scored 3.44 out of 4 for overall customer satisfaction, up from 3.3 in 2017.
Investments	Keppel REIT conducted tenant satisfaction surveys for its properties in Singapore and Australia.	Survey results indicated high levels of tenant satisfaction.

Driving Innovation

We continue to invest in technology to maximise our value proposition and improve operational efficiency.

Innovation and technology have been integral parts of our growth and the company continues to invest in these areas to maximise its value proposition, improve operational efficiency and provide solutions for existing and new markets.

Leveraging Supercomputing

The Group uses supercomputing resources for a range of activities from digitally testing and improving its rig and ship designs to mapping out the airflow at its data centres for optimum usage.

Keppel Offshore & Marine (Keppel O&M), through the Keppel-National University of Singapore Corporate Lab, uses the National Supercomputing Centre's supercomputer, Aspire 1, to run computational fluid dynamics (CFD) models to visualise gas and liquid flows for resistance and propulsion studies to improve the safety, reliability, fuel efficiency and operability of its products. Projects include designs for containerships, LNG bunkering vessels and ice breakers as well as semisubmersible hull and column optimisation. The conventional design

approach would involve physical model testing, which is time-consuming, resource intensive and costly.

Keppel Data Centres and its equipment providers, together with A*STAR, use Aspire 1 for CFD modelling to study airflow patterns for hot and cold air in its data centres. This is important in tropical Singapore where the bulk of energy consumption in data centres goes towards cooling equipment. Understanding airflow in data centres allows Keppel Data Centres to optimise the supply of cool air to mission-critical computer server racks while efficiently removing waste heat.

Harnessing Digitalisation

Keppel O&M's proprietary RigCare Solution provides customers with a suite of digital services to support the rig's lifecycle needs, significantly increasing uptime and improving safety while reducing maintenance costs.

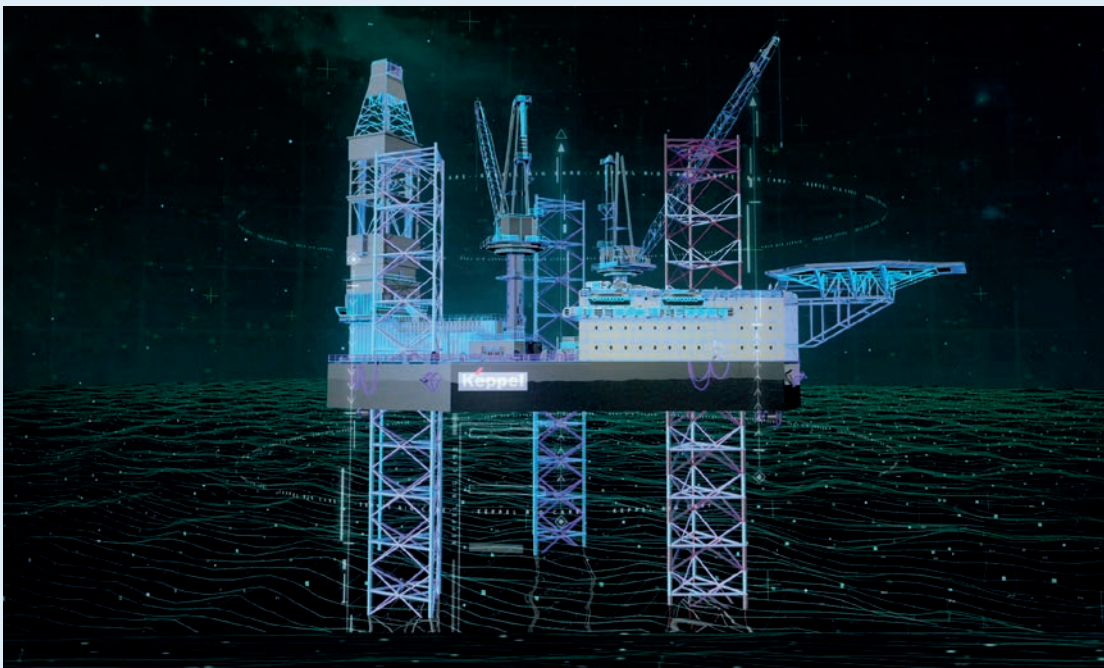
RigCare leverages digitalisation and data insights to provide end-to-end solutions,

including asset management, remote advisory and rig performance optimisation. With this new service, Keppel O&M is able to offer reliable solutions throughout the rig's lifecycle, from rig design, engineering and construction, to operation and maintenance.

RigCare features include the use of:

- Industrial Internet of Things to enhance automation and mobile operations;
- Smart sensors to drive towards condition-based class surveys in a joint development project with classification society ABS to lower downtime and reduce maintenance costs;
- Digital twin-based analytics to predict machine failure and enhance overall efficiency and robustness with real-time data; and
- Real-time optimisation of the rig's operations

In February 2019, Keppel FELS delivered Cantarell IV, its first jackup rig equipped with the RigCare Solution, to Grupo R with a perfect safety record.



Keppel O&M's proprietary RigCare Solution uses digitalisation and data insights to provide end-to-end solutions, including asset management, remote advisory and rig performance optimisation.

Safety & Health

Safety is our core value. We are committed to providing a safe and healthy workplace for all our stakeholders.



2018 Targets

Execute our Zero Fatality Strategy and reduce workplace fatalities to zero.

Reduce Accident Frequency Rate (AFR) compared to 2017 levels.

Implement an electronic global health, safety and environment (HSE) management system to streamline data capture, analyse data, and develop intervention programmes.

Invest in technologies to mitigate risk and drive improvements in safety performance.

2018 Performance

Developed global High Impact Risk Activities (HIRA) standards.

Held over 200 safety leadership coaching programmes globally to train and empower frontline managers.

Aligning business unit requirements for electronic global HSE management system.

Collaborating with Keppel Technology and Innovation to explore the use of video analytics and business intelligence to harness data from hazard reporting, observations and inspections.

AFR increased to 0.25.

Suffered one fatality in Singapore.

2019 Targets

Execute our Zero Fatality Strategy and reduce workplace fatalities to zero.

Reduce total recordable incident rate by 10% compared to 2018 levels.

Conduct a compliance audit for selected business units in relation to the global HIRA standards.

Invest in technologies to drive improvements in safety performance.

Topics

Management systems

Hazard identification, risk assessment and incident investigation

Occupational health services

Worker participation, consultation and communication

Worker training and communication

Promotion of worker health

SDGs



Overview

Safety is a core value at Keppel, an integral part of our business, and a key focus area for our board of directors and senior management. We are committed to provide a safe and healthy workplace for all our stakeholders.

Processes and systems are in place to identify, mitigate and report risks and communicate best practices across the Group, and we work with our contractors and subcontractors to ensure that they understand our requirements and expectations.

Management Approach

GRI 102-13 | 103-1 | 103-2 | 103-3 | 403-1 | 403-2 | 403-3 | 403-4 | 403-5 | 403-6 | 403-7

We focus on strengthening our frameworks and management systems as well as promoting a culture of safety ownership across our operations.

Strategy, Policy & Management Systems

Our approach to safety 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.

Key initiatives in 2018 include the following:

- Held over 200 safety leadership coaching programmes globally to train and empower frontline managers.
- Implemented the new incident investigation and root cause analysis training programme in Singapore.
- Reinforced the five key safety principles and life-saving rules through campaigns.

- Reviewed potential safety risks for projects in the next quarter.
- Developed the global HIRA standards that will apply to the Group's operations worldwide.

The effectiveness of our management approach is reviewed regularly. During the annual HSE roundtable, senior management from our businesses share insights, best practices and exchange ideas to improve safety performance. The action plan generated during the session is incorporated into the Group's safety roadmap and strategies.

All employees and contractors at the worksites of Group companies where Keppel has operational control are covered by our HSE management systems. All employees and third-party suppliers and contractors are also expected to abide by the Keppel Corporation HSE policy which places the highest priority on the health and safety of people and the protection of assets and the environment.

Our safety management system is routinely audited by independent consultants as well as internal audit teams. For example, Keppel Offshore & Marine's (Keppel O&M) cross-business unit audit ensures that policies and management systems are adhered to and that practices across our global yards are aligned.

Our business units also strive to achieve safety certifications in line with global best practices. Keppel FELS, Keppel Shipyard and Keppel Singmarine are certified to meet the

Training

>200

Safety leadership coaching programmes conducted globally.

Investment

\$26m

Invested to enhance safety-related infrastructure, upgrade systems and build knowledge and skillsets across the Group.



Singapore standard for occupational safety and health management system, while our yards in Brazil, China, the Philippines and the United States are certified to meet the OHSAS 18001 occupational health and safety assessment series and ISO 14001 environmental management system.

Keppel Land's Singapore, China, Indonesia and Vietnam units as well as Keppel Infrastructure and its key subsidiaries, including Keppel Seghers Engineering Singapore and Keppel DHCS, are certified to meet OHSAS 18001 and ISO 14001.

In addition to being certified under OHSAS 18001 and ISO 14001, Keppel Logistics is certified to meet the hazard analysis and critical control point management system. Keppel Datahub and Keppel Digihub are also certified to meet the Singapore standard for information and communications technology disaster recovery services.

As part of continuous improvement efforts, we are working to meet the requirements under the new ISO 45001 occupational health and safety management system, which provides a robust set of processes for improving safety in global supply chains.

Board & Management Oversight

Keppel Corporation is the first publicly listed company in Singapore to establish a board safety committee (BSC) in 2006.

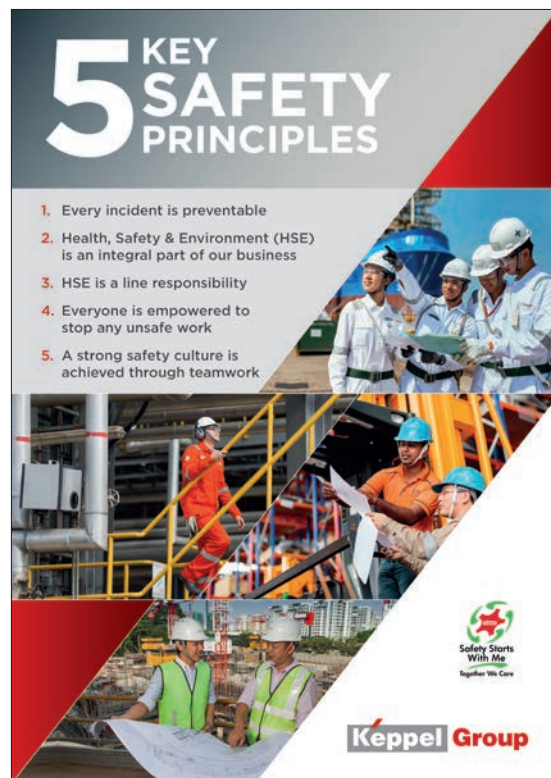
Chaired by Tan Ek Kia, a non-executive and independent director of Keppel Corporation, the BSC adopts a hands-on approach in setting the strategic direction and establishing a safety framework to ensure that consistently high safety standards are maintained across our business units. Major incidents are also shared and discussed at quarterly BSC meetings.

The BSC leads efforts to implement initiatives and improve performance with the support of the inter-strategic business unit safety committee, which comprises representatives from all our business units. Keppel Corporation's BSC and the BSCs of our business units conducted six site visits in Singapore and overseas in 2018 to engage staff and understand challenges faced by staff on the ground.

Hazard Identification & Risk Assessment

Across the Group, we establish and implement procedures to identify, assess and mitigate safety and health hazards that are linked to our operations.

As part of hazard identification and risk management, our operational and safety teams conduct periodic workplace inspections and internal audits. Training is conducted to equip HSE personnel with the skills to effectively manage safety risks. Union workers and subcontractor representatives are invited to participate in meetings where the identification of hazards,





The Keppel Group Safety Convention is held annually to reiterate Keppel's commitment to a strong safety culture.

assessment of risks and the application of control measures are discussed¹.

As part of Keppel's five key safety principles, workers are empowered to stop any unsafe work. Workers are protected from reprisal when they report work-related hazards and hazardous situations.

Findings from our risk assessments are considered in the determination of facility requirements, training programmes and operational controls. In terms of product safety, we adhere to design for safety regulations for our construction projects and comply with work environment requirements for the rigs and vessels that we build. Our hazard identification and risk assessment methodology is reviewed regularly to ensure effectiveness and relevance.

Leveraging technology to drive improvements is a key pillar of our Zero Fatality Strategy. Group HSE is collaborating with Keppel Technology and Innovation to explore the use of video analytics and business intelligence to harness data from hazard reporting, observations and inspections.

➤ *Read more about how the Group utilises technology to enhance safety measures on page 63.*

To protect workers from potential health hazards, hearing conservation and respiratory protection programmes are implemented at at-risk sites. To protect against noise-induced hearing loss, employees with high exposure to noise wear hearing protection gear and are screened at annual audiometric tests conducted by a mobile medical unit.

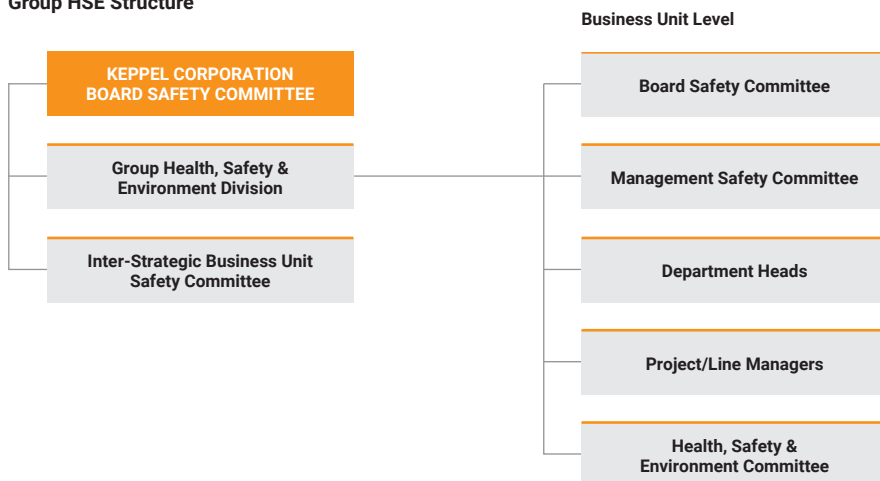
During the daily Take 5 toolbox talk, workers are briefed on work-specific hazards including ergonomics in material handling. A fit test is conducted to ensure that respirators used are in good condition and correctly fit the user.

Promotion of Worker Health

It is mandatory for all workers, including contract workers, to be covered by work injury compensation insurance prior to working at our shipyards. In-house medical centres are also located in all our shipyards. Our contractors partner with clinics to provide contract workers with access to medical care.

Keppel also promotes the wellness of its workforce through programmes that address physical and mental health-related risks. Voluntary health promotion programmes

Group HSE Structure



¹ Representatives include members from the Keppel FELs employees union and the subcontractors executive council safety committees at Keppel FELs; Keppel employees union and subcontractor watch group at Keppel Shipyard; Keppel Subic Shipyard workers union and supervisory professional technical union at Keppel Subic Shipyard; Christian Labour Organisation and associated professional, supervisory, office and technical employees union at Keppel Batangas Shipyard; metallurgic union of Angra dos Reis at Keppel FELs Brasil; Keppel employees union and Singapore industrial and services employees' union at Keppel Infrastructure.

Safety & Health



and services across the Group include the promotion of a smoking cessation hotline, healthy snacks in pantries and canteens, as well as fitness classes. Workers' dormitories are also equipped with gyms.

Keppel O&M conducts regular dormitory visits to engage workers on health and safety issues. Keppel Shipyard offers holistic health and medical services and is equipped with a pharmacy, counselling rooms and designated rest areas.

To provide workers with a conducive environment to rest during breaks, Keppel Shipyard built three 4-storey rest areas. Each rest area accommodates up to 2,000 workers.

The Keppel wellness gallery at Keppel Shipyard features interactive health exhibits to educate employees on the importance of having proper nutrition, an active lifestyle and good mental health.

Several of the Group's companies, namely Keppel FELS, Keppel Shipyard, Keppel Offshore & Marine Technology Centre, Keppel Housing and City Gas, were recognised for their outstanding workplace health promotion practices at the biennial Singapore HEALTH (Helping Employees Achieve Life-Time Health) Awards in 2017.

Building Skillsets

We empower and train our stakeholders to ensure that all personnel are updated

on safety measures and best practices. In 2018, we invested approximately \$26 million in enhancing safety-related infrastructure, upgrading systems and building knowledge and skillsets across the Group.

Plans are underway for all workers to undergo HIRA training. The syllabus covers high-risk activities specific to work sites.

All personnel entering a Keppel operated site must attend a site-specific safety induction to gain familiarity on the basic safety requirements and potentially hazardous on-site activities or situations.

The Keppel safety training centre at Keppel Shipyard in Singapore offers a complete range of training and certification courses in both trade-specific and broad-based skills for all levels of the workforce. The centre is equipped with classrooms, an e-learning zone, and a hall with multimedia and interactive training stations. It also features a life-size replica of the mid-section of a tanker with various technical training areas. Core competency and leadership development programmes, as well as workforce skills qualifications courses certified by the Singapore Workforce Development Agency, are some of the key training modules conducted by qualified, full-time instructors at the centre.

In Brazil, BrasFELS opened a new training centre in 2018. The centre is equipped with two auditoriums, a classroom for practical safety training and a showroom where participants can learn more about HIRA at the shipyard.

Keppel Land's safety awareness centres in Ho Chi Minh City, Vietnam; Johor Bahru, Malaysia; Jakarta, Indonesia and Tianjin, China, provide mandatory training for contractors' employees and foster a safety culture across Keppel Land's supply chain. In August 2018, Keppel Land launched the company's first mobile safety awareness centre in Wuxi, China. The new mobile centre is compact and suitable for deployment at offices and worksites.

To promote safer driving, Keppel Logistics organises defensive driving courses for its drivers.

Engaging Stakeholders

We work closely with all stakeholders, including our contractors, subcontractors, customers, suppliers, regulators and industry associations, to maintain high safety standards throughout our workforce. Our subcontract workers undergo the same training as direct employees.

Members of Keppel's management and safety representatives sit on various committees of the Workplace Safety and Health (WSH) Council, such as the WSH (Marine Industries) committee,

		Direct Workforce	Contract Workforce	Total
2018	AFR (reportable accidents per million man-hours)	0.27	0.23	0.25
	ASR (man-days lost per million man-hours)	6	101	63
	Fatal injury rate (fatal injury per 100,000 employed persons)	0	4.4	2.7
	Number of man-hours	40,708,241	65,307,115	106,015,356
2017	AFR (reportable accidents per million man-hours)	0.12	0.09	0.10
	ASR (man-days lost per million man-hours)	233	80	140
	Fatal injury rate (fatal injury per 100,000 employed persons)	11.1	3.6	6.5
	Number of man-hours	51,968,923	79,087,378	131,056,301
2016	AFR (reportable accidents per million man-hours)	0	0.14	0.15
	ASR (man-days lost per million man-hours)	295	230	254
	Fatal injury rate (fatal injury per 100,000 employed persons)	13.7	10.9	12
	Number of man-hours	62,851,897	105,712,508	168,564,405

WSH (construction and landscape) committee, national work at height safety taskforce, and related industrial associations such as the Association of Singapore Marine Industries and Real Estate Developers' Association of Singapore.

As bizSAFE partners, Keppel DHCS, Keppel Seghers Engineering Singapore, Keppel FELS, Keppel Shipyard and Keppel Singmarine actively encourage contractors to progress through the levels of the bizSAFE programme. Since 2013, Keppel Shipyard has imposed a bizSAFE Level 4 certification requirement for resident contractors before they are able to undertake work at the yard.

As a bizSAFE mentor, Keppel Land encourages contractors to develop and implement safety initiatives at their workplaces. Prior to their appointment, Keppel Land's main contractors must be confirmed as bizSAFE partners, and ensure that their subcontractors meet the standards set by the WSH Council.

Performance

GRI 403-2 | 403-9

In accordance with the company's HSE policy, business units are required to report and investigate all accidents, incidents and near misses, and ensure that lessons learnt are shared to prevent any recurrence. All Group companies where Keppel has operational control are required to report incidents, 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.

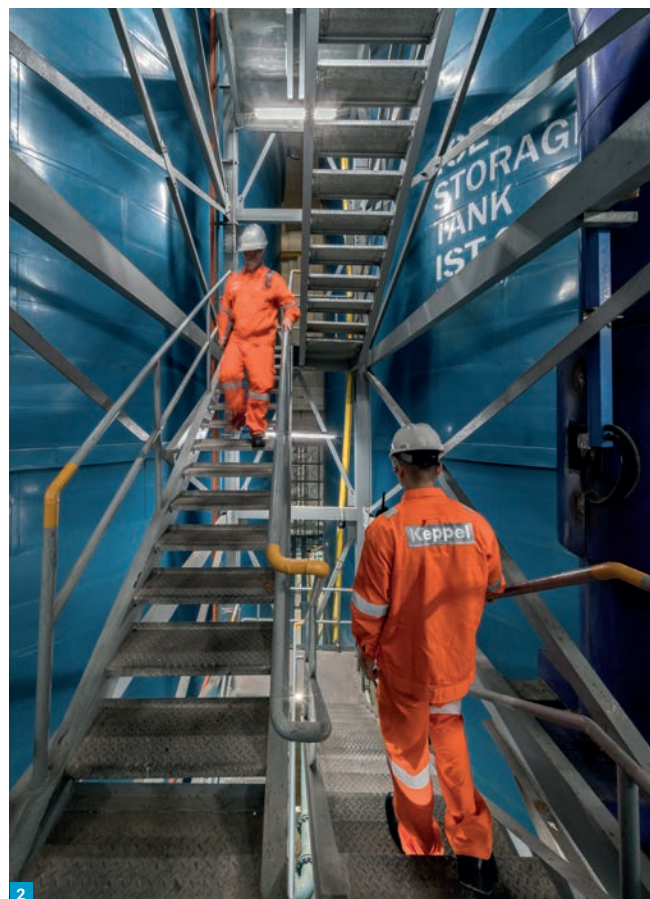
At worksites, stand-downs are conducted when incidents occur or when hazards are spotted. Reportable incidents and near misses are also promptly reported to senior management.

In 2018, the Group reported a total accident severity rate (ASR) of 63 man-days lost per million man-hours, a decrease from last year, and a total AFR of 0.25 accidents per million man-hours in 2018, an increase from last year².

Despite our best efforts, we suffered one fatality of a contractor. The incident was associated with steel fabrication works in one of our Singapore shipyards. We are deeply saddened by the loss of our colleague and have thoroughly investigated the root

$$^2 \text{ Accident Frequency Rate (AFR)} = \frac{\text{no. of workplace accidents reported}}{\text{no. of man-hours worked}} \times 1,000,000$$

$$\text{Accident Severity Rate (ASR)} = \frac{\text{no. of man-days lost to workplace accidents}}{\text{no. of man-hours worked}} \times 1,000,000$$



1 Keppel Land launched the company's first mobile safety awareness centre in China (pictured), which will be deployed at offices and worksites.

2 We aim to ingrain safety consciousness among all our stakeholders.



As part of a global safety time-out event, employees across our global worksites simultaneously stopped work and participated in toolbox briefings.

causes, which were related to working in the line of fire and lifting. We determined the contributing factors and identified steps to prevent similar incidents in the future. Lessons learnt were shared across the Group.

The Group reported a total of 26 safety incidents³ in 2018, of which 10 incidents were reported by our direct workforce and 16 incidents by our contract workforce. The reported incidents have been classified as the following types:

- caught between
- fall on same level
- fall from height
- struck by
- contact with
- heat stroke
- road traffic accident

Two of the 26 incidents resulted in amputations, and both the affected employees received insurance payouts under the work injury compensation scheme⁴. Following investigations, corrective actions and preventive measures have been implemented at the two affected worksites. This includes the installation of barriers at Keppel Telecommunications & Transportation to segregate vehicle and human traffic

at entrances. The safe work procedure methodology at Keppel Infrastructure was also revised for processes involving the alignment of pipes.

All work-related incidents are jointly investigated by the operational and safety 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, as well as a root cause analysis and corrective action plan to prevent recurrence.

All of the Group's operational entities monitor occurrences of occupational disease at their individual sites. No occurrence of occupational disease was reported in 2018.

Recognition

The Group was conferred 28 WSH Awards in 2018 by Singapore's Ministry of Manpower and the WSH Council. This is the highest number of awards won by a single organisation in the year.

Of the 28 awards, Keppel O&M received 22 awards under the Safety and Health Award Recognition for Projects (SHARP)

category. Keppel FELS, Keppel Singmarine and Keppel DHCS clinched the WSH Performance Awards for exemplary safety performance and implementation of strong WSH management systems.

Enhancing Communication

Keppel's five key safety principles are widely publicised to ingrain safety consciousness among all stakeholders. The Group HSE Alerts system was established to better disseminate lessons learnt globally and ensure that preventive measures are taken promptly.

On 23 October 2018, over 500 board members, management, employees, union members, contractors and subcontractors, partners, and business associates reaffirmed their collective commitment to safety at the 12th edition of the Keppel Group safety convention. The convention saw the continuation of the annual Keppel Group safety awards and also recognised 35 safety innovation projects.

As part of a global safety time-out event, employees across our global worksites simultaneously stopped work and participated in activities such as toolbox briefings and sharing sessions.

³ 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; and a workplace accident that results in the injury of a self-employed person or non-employee who receives treatment in hospital.

⁴ A high-consequence work-related injury is defined as an injury which resulted in the affected worker being compensated with an insurance payout.

Safety Innovations

Across the Keppel Group, we continue to develop innovative solutions to enhance safety.

In developing innovative and effective safety solutions, we aim to improve work processes and enhance safety.

The use of drone technology enables us to safely and efficiently inspect, analyse and provide repair support in high-risk and difficult to access areas.

Keppel O&M has teamed up with industry partners to develop a hub-and-spoke system of unmanned drones that can conduct inspection, repair and maintenance work, and seabed mining at depths of 5,000 m. The use of drones to inspect difficult to access parts of vessels and rigs, such as the jackup rig's legs, side-shell of the external hull, derrick and cranes, eliminates the need for workers to operate at height.

Drones are also used at Keppel Infrastructure's Keppel Marina East Desalination Plant to regularly capture aerial photos of the construction site to help inform progress reports and identify safety issues.

At some of Keppel Land's projects in Tianjin and Jakarta, surveillance cameras with pan-tilt-zoom capabilities are installed at strategic locations around the work sites. Images from these cameras can be streamed and viewed on a computer or mobile device anytime. This allows project managers to monitor site construction progress as well as identify potential safety issues in a cost-effective manner.

To reduce the risk of working in hazardous conditions, Keppel Shipyard has developed a gas monitoring system equipped with an

alarm to continuously monitor the gas status within confined spaces. This reduces the risks associated with confined space entry to a considerable extent.

At Keppel Merlimau Cogen, a pre-loading sampling device was designed to ensure that tank valves are only opened when the device detects the correct chemical based on its conductivity, eliminating the risk of incompatible chemicals being loaded into the wrong tanks, which could otherwise cause adverse reactions and major disruption to operations.

Moving forward, the safety team will continue collaborating with Keppel Technology and Innovation to explore the use of video analytics and business intelligence to harness data from hazard reporting, observations and inspections.



Utilising drone technology, Keppel is able to safely and efficiently inspect, analyse and provide repair support in high-risk and difficult to access areas.

Labour Practices & Human Rights

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



2018 Targets

Continue to conduct the Keppel Global Employee Engagement Pulse Survey to track employee engagement levels.

Continue to promote diversity and equal opportunity in the workplace.

Further develop our workforce through tech-enabled and self-paced training programmes.

2018 Performance

Conducted the Keppel Global Employee Engagement Pulse Survey, where 87% of employees surveyed indicated that they would "go beyond the norm" to contribute to Keppel's success.

Formalised the Corporate Statement on Diversity and Inclusion.

Launched a digital learning platform for staff to enable self-directed learning, learning on-the-go and social learning.

Recorded an average of 27.1 hours of training per employee, an increase from 22.6 hours in 2017.

2019 Targets

Conduct the Keppel Global Employee Engagement Survey to track employee engagement levels.

Continue to promote diversity and equal opportunity in the workplace.

Continue to empower our workforce through tech-enabled and self-paced training programmes and achieve an average of over 20 hours of training per employee globally.

Topics

Fair employment

Diversity and equal opportunity

Non-discrimination

Training and education

SDGs



Overview

People are our most valuable asset. We respect and uphold human rights principles, adhere to fair employment practices, and invest in developing and training our workforce. In doing so, we enhance our ability to attract and retain the best talent and grow the capabilities of our people.

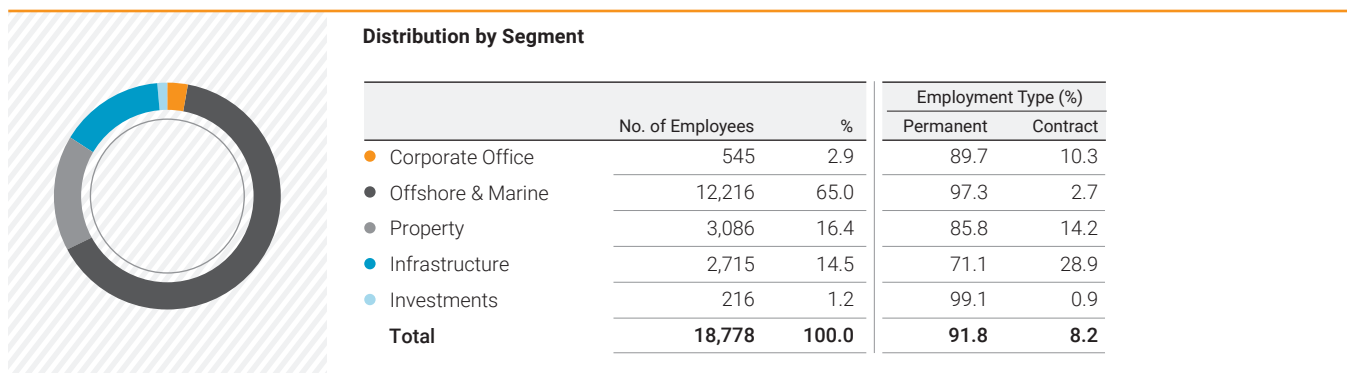
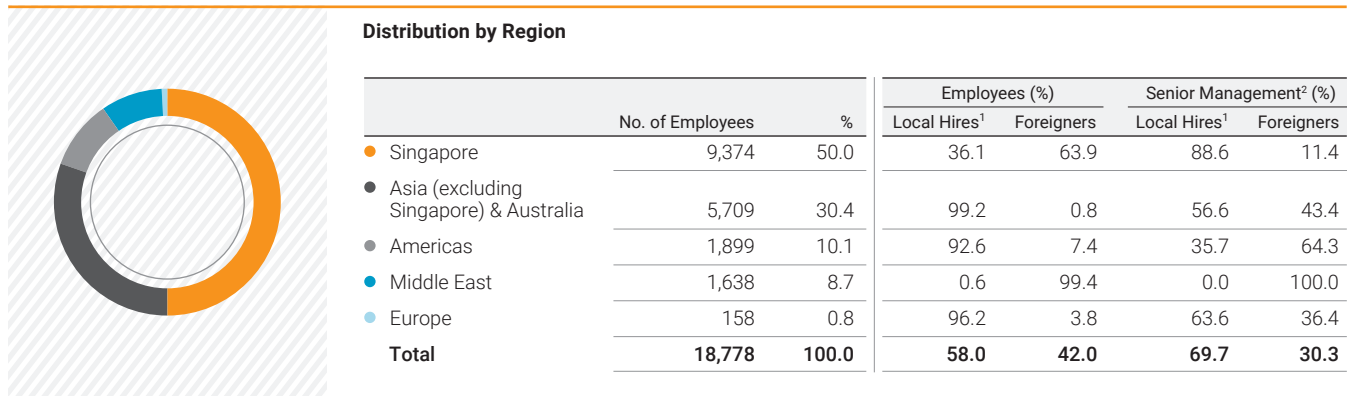
Our total workforce across more than 20 countries was 18,778 as at end-2018. The figure comprises full and part-time permanent employees and excludes our contractor workforce.

We believe that hiring from local communities¹ 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, 69.7% of senior management² and 58.0% of our employees are citizens or permanent residents of the countries in which they work.

The data reported in this section takes into account significant subsidiaries and associated companies in which the Group has a stake that is equivalent to 51% or more.

Our Global Workforce

GRI 102-8 | 202-2



¹ Locals are defined as citizens or permanent residents of the country in which they work.

² Senior management is defined as the top three individuals within each operating business unit with the highest levels of executive management.

Labour Practices & Human Rights

Management Approach

GRI 102-41 | 103-1 | 103-2 | 103-3 | 401-2 | 401-3 | 404-3 | 406-1

Fair Employment

The ability to attract and retain talent is key to our business. We adopt fair employment practices and comply with local labour regulations across our global operations, as well as minimum wage laws, where such laws exist. We endorse Singapore's Tripartite Guidelines on Fair Employment Practices and the Employers' Pledge of Fair Employment Practices.

Globally, 3,037 people were hired in 2018. Overall voluntary turnover rate was 12.7%, a decrease from 13.4% in 2017.

Keppel supports re-employability beyond the statutory retirement age. Eligible employees are offered post-retirement employment opportunities in Keppel, in line with the Singapore Tripartite Guidelines on the Re-employment of Older Employees. As at 31 December 2018, there were 216 re-employed staff in the Group, of which 65 were re-employed in 2018.

Compensation & Benefits

Keppel subscribes to a pay-for-performance philosophy. We believe this drives ownership of collective goals and leads to a high performance culture that creates long-term shareholder value.

Opportunities for advancement, promotion, recognition, compensation, training and other conditions of employment are provided based on merit. Performance reviews are conducted for permanent employees. The process, undertaken jointly by the employee and supervisor, entails the setting of targets and a review of these targets on an annual basis.

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

Eligible female employees in Singapore are entitled to a maximum of 16 weeks of paid maternity leave, while eligible male employees

in Singapore are entitled to a maximum of two weeks of paid paternity leave, in accordance with the Singapore Ministry of Manpower's legislation. In Singapore, we had a 100% return to work rate for the 49 female employees who went on maternity leave.

The 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.

Human Rights

We uphold and respect the fundamental principles set out in the United Nations (UN) Universal Declaration of Human Rights and the International Labour Organisation's

New Hires

GRI 401-1

	No. of Employees (Executive & Above)	%
Total	3,037	100.0
Singapore	1,275	42.0
Asia (excluding Singapore) & Australia	1,292	42.6
Americas	64	2.1
Middle East	378	12.4
Europe	28	0.9

	Gender (%)		Age Group (Executive & Above) (%)			
	Male	Female	<30 years old	30 to 39 years old	40 to 49 years old	50 years old & above
Overall	62.9	37.1	40.4	40.4	11.3	7.9
Corporate Office	33.3	66.7	50.8	31.6	12.3	5.3
Offshore & Marine	80.6	19.4	41.3	40.1	12.4	6.2
Property	53.3	46.7	39.4	48.9	9.8	1.9
Infrastructure	58.9	41.1	38.7	31.1	8.7	21.5
Investments	53.1	46.9	36.7	30.6	24.5	8.2

declaration on fundamental principles and rights at work. Our approach to human rights is informed and guided by general concepts from the UN Guiding Principles on Business and Human Rights. Keppel Corporation is a signatory of the UN Global Compact and is committed to the Compact's 10 universal principles, which include principles on human rights and labour practices.

We have zero tolerance for unethical labour practices such as child labour, forced labour, slavery and human trafficking in all of our operations. Our suppliers are expected to abide by the Keppel supplier code of conduct, which holds them accountable for responsible labour practices in their operations.

Our commitment to human rights is supported by our Employee 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 our corporate statement on human rights which is publicly available online.

Collective Bargaining

Unions are our partners and we place great emphasis on maintaining a harmonious and collaborative relationship with them. Approximately 28.9% of our global workforce are bargainable employees covered by collective agreements.

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

Across our businesses worldwide, there were no reported cases of workplace grievances³ in 2018.

³ Workplace grievance is defined by Singapore's Ministry of Manpower as discontent or the feeling of being victimised at work.

Turnover¹

GRI 401-1

	2016	2017	2018
No. of Employees	3,868	2,872	2,381
Turnover Rate ² (%)	12.3	13.4	12.7

	No. of Employees (Executive & Above)	Turnover Rate ² (Executive & Above)(%)
By Region		
Total	987	14.1
Singapore	494	12.4
Asia (excluding Singapore) & Australia	459	22.7
Americas	29	7.1
Middle East	2	0.4
Europe	3	1.9

	No. of Employees (Executive & Above)	% of Total Turnover
By Gender		
Male	632	63.6
Female	355	36.4
By Age Group		
<30 years old	277	28.1
30 to 39 years old	476	48.2
40 to 49 years old	161	16.3
50 years old & above	73	7.4

¹ Turnover is defined as the total number of employees who leave the organisation voluntarily. It does not take into account employees who leave due to completion of contracts, dismissal, retirement or death in service.

² The 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.

Labour Practices & Human Rights

Diversity & Inclusion

We believe that people should have access to the same opportunities 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 was formalised in early 2019, and is publicly available online.

Our hiring policies ensure equal employment opportunities for all. Our employment statistics, reviewed regularly, illustrate the diversity of our workforce. As at 31 December 2018, 19.4% of our employees are female, compared to 17.8% in 2017. We recognise that there are certain segments in our businesses, such as offshore and marine, which tend to attract larger proportions of male employees due to the nature of the jobs. At our corporate office and in certain segments of our businesses, such as investments, more than half of our employees are female. In addition, 42% of the Heads of Departments at Keppel Corporation's Corporate Office are females as of end-2018.

There were no reported incidences of discrimination raised by our employees in 2018.

Training & Development

GRI 404-1 | 404-2

We empower employees through learning and development programmes and encourage them to reach their full potential. The overall average training hours per employee for our key operations in Singapore was approximately 29.4 hours. Globally, the overall average training hours per employee was approximately 27.1 hours, with an average of 23.5 hours for females and 28 hours for males⁴.

Keppel Corporation's Group Human Resources drives and coordinates efforts across the business units to ensure consistency in processes such as performance management and talent management.

In 2018, we launched an online learning management system that enables employees in Singapore to engage in self-directed and social learning across a range of business topics.

Leadership Programmes

Keppel Leadership Institute, headquartered in Singapore, offers a diverse range of leadership and development programmes, delivered in modular and blended approaches. These programmes are designed in consultation with senior management and are regularly refreshed to suit the Group's evolving needs. Over 160 employees have participated in the institute's leadership programmes since 2015.

Employee Demographics

GRI 102-8 | 405-1

Distribution by Gender (%)

	Male	Female
Overall	80.6	19.4
By Region		
Singapore	85.0	15.0
Asia (excluding Singapore) & Australia	66.5	33.5
Americas	86.7	13.3
Middle East	97.3	2.7
Europe	67.1	32.9
By Segment		
Corporate Office	43.1	56.9
Offshore & Marine	90.9	9.1
Property	52.7	47.3
Infrastructure	76.6	23.4
Investments	40.3	59.7
By Employment Type		
Permanent	81.5	18.5
Contract	73.2	26.8

Distribution by Age Group (%)

	<30 years old	30 to 39 years old	40 to 49 years old	50 years old & above
Overall	23.1	39.9	23.2	13.8
By Segment				
Corporate Office	19.4	33.1	31.2	16.3
Offshore & Marine	22.8	41.4	21.8	14.0
Property	25.3	40.6	24.6	9.5
Infrastructure	22.9	33.8	26.0	17.3
Investments	18.9	43.3	27.2	10.6

Distribution by Educational Qualification (%)

	Post-graduate	Bachelor's Degree	Post Secondary/ Pre-U/ Vocational	Secondary	Primary & below
Overall	4.8	25.9	29.6	31.8	7.9
By Segment					
Corporate Office	12.1	47.4	31.1	1.3	8.1
Offshore & Marine	3.7	18.4	29.3	37.9	10.7
Property	6.5	44.2	29.9	18.4	1.0
Infrastructure	5.3	31.7	31.3	27.7	4.0
Investments	18.9	67.3	12.9	0.0	0.9

⁴ Training hours reported in this section excludes on-the-job training.

About 200 employees are part of the Keppel Young Leaders programme, which is the Group's platform to nurture young talents. Members of the programme are given opportunities to lead high-impact projects with guidance from senior management across the Group. Activities undertaken by Keppel Young Leaders in 2018 include the Keppel Tech Symposium, Keppel Young Leaders Week as well as dialogue sessions with eminent external speakers.

Separately, the Keppel associate programme offers young talents opportunities for leadership development through a series of job rotations and structured learning.

Industry Programmes

The Group makes significant investments to equip employees with up-to-date operational skills and certifications. We support employees at all levels of the company in furthering their education. In 2018, the Group sponsored 19 employees in pursuing further studies.

In 2018, Keppel Offshore & Marine (Keppel O&M) signed a memorandum of understanding with the National University of Singapore to offer employees training places in an extensive range of academic modules and curated executive programmes. For example, employees will be able to pick up new skills in data analytics, robotics, process engineering and environment engineering.

Keppel O&M's technical associate and assistant technical associate schemes are offered in collaboration with the Institute of Technical Education. The two-year work-and-study programme includes classroom learning, practical skills training, on-the-job training and soft skills training. In 2018, seven students participated in the programme.

In partnership with the Singapore government, the Group supports the Singapore-industry scholarship which sponsors Singapore citizens pursuing their undergraduate studies in areas related to Singapore's strategic sectors. In 2018, the Group supported two students in the programme.

Employee Engagement

Celebrating 50 Years

As 2018 marked Keppel Corporation's 50th anniversary, a series of activities, including the Keppel 50 Charity Run, were held to commemorate this occasion and also to engage staff. A \$200 cash gift was given to each of Keppel's approximately 20,000 staff in Singapore and overseas, in appreciation of their hard work and dedication.

Employee Engagement Survey

We conducted the Keppel Global Employee Engagement Pulse Survey in 2018. The survey achieved a strong response rate of 94% from a sample size of over 5,000 employees. The Group achieved a high engagement score, with 87% of employees surveyed indicating that they would "go beyond the norm" to contribute to Keppel's success.

Enhancing Communication

Various staff engagement initiatives are organised throughout the year to enhance communication between management and staff. The fourth edition of the Global Keppelites Forum, a group-wide town hall meeting, was held in February 2018. The event, which was also broadcast online, reached out to over 2,000 employees in over 70 locations globally.

During the session, Loh Chin Hua, Chief Executive Officer of Keppel Corporation, shared on the Group's overall performance,

Training & Development

500,000hrs

Invested in training our employees, including leveraging digital platforms for faster and better reach.

Local Hires

69.7%

Of senior management are hired from local communities.

Training

GRI 404-1

Training Hours per Employee (hrs)

	2016	2017	2018
Global	25.3	22.6	27.1
Singapore	29.8	22.9	29.4

Average Training Hours by Employee Category (hrs)

Senior Management	30.8
Managerial	31.4
Executive	25.1
Non-Executive	26.2
Industrial/General	28.2

Labour Practices & Human Rights

We build cohesive teams and forge camaraderie through participation in the National Day Parade marching contingent.



strategy and priorities. Employees also took this opportunity to pose questions to a panel comprising senior management from across the Keppel Group.

Employees are updated on company developments at regular staff dialogue sessions. Orientation sessions for new hires in 2018 included dialogue sessions with senior management. New hires are also assigned mentors who help them assimilate and guide their professional development.

Building Strong Teams

We believe that cohesive teams are integral to a productive workforce. We continue to build camaraderie among employees through various platforms, such as Keppel Games, a series of sports competitions initiated by Keppelite Recreation Club, as well as volunteer activities organised by Keppel Volunteers.

Supporting National Defence

As a company headquartered in Singapore, we believe in contributing towards Singapore's national security. National Service (NS) is a vital component of national defence, and we support our employees' NS commitments.

Keppel Corporation was awarded the NS Advocate Award for Large Companies at the Total Defence Awards organised by Singapore's Ministry of Defence in 2018. The Award, conferred for a period of three years, is the highest accolade acknowledging businesses for their exemplary support towards Total Defence and in particular, NS.

Workforce Wellness

We are committed to the well-being of our entire workforce. This includes foreign workers who live and work away from their families.

Keppel O&M provides high-quality dormitories for our directly employed foreign workers in Singapore. These dormitories offer a range of amenities and recreational facilities. Activities, such as talent search competitions, are organised to promote harmonious living and bonding. Keppel Housing, which houses our yards' direct workers, provides counselling services, including a 24-hour emergency helpline, to look after our workers' mental and emotional well-being.

Other welfare initiatives organised by our business units include lunchtime talks, health screening exercises and fitness classes.

Driving collaboration as OneKeppel

In the spirit of strengthening collaboration, the Group's flagship address at Keppel Bay Tower underwent a transformation to an agile workplace configuration.

Employees from Keppel Corporation rolled out the welcome mat and pulled back the curtains on a brand new renovated smart office in December 2018, as they welcomed colleagues from Keppel Capital and Keppel Land under one roof at Keppel Bay Tower in Singapore.

In the spirit of strengthening collaboration as OneKeppel, the Group's flagship address features an agile workplace configuration that is designed to enhance interactions and facilitate cross-business unit networking.

State-of-the-art technology, such as facial recognition for building access and mobile-app integration for printing, meeting room bookings and HR functions were integrated into the office redesign, allowing employees seamless access to various facilities at Keppel Bay Tower.

To promote workplace wellness, ergonomic chairs, standing desks and adjustable

“Compared to our old office at Bugis Junction Towers, the new agile office feels more modern. My favourite feature is the staircase connecting the floors, as it's easier for me to reach out to colleagues across the Group.”

**Raymond Bay, Manager,
Corporate Finance and Treasury, Keppel Capital**

monitor screens are used for better comfort, while acoustic panels and phone booths help to minimise noise levels. To ensure that health and safety standards are maintained during operational hours, indoor air quality display panels are used to monitor air quality. Healthier food options such as fruits and nuts are available at our pantries.

To encourage employee well-being and promote team bonding, a central wellness team has been formed to organise activities like fitness classes and facilitate the setting up of interests groups.

“There is definitely more interaction with colleagues from different departments compared to our old office where we were on different floors. There's also a lot more natural light streaming in, which helps make the office bright, spacious and conducive for work.”

**Brenda Khoo, Senior Executive,
Marketing, Keppel Land**



A staircase across three floors connects Keppel Corporation, Keppel Capital, Keppel Technology and Innovation, and Keppel Leadership Institute. Bright and open collaborative spaces surrounding the staircase landing allow for spontaneous breakout discussions among employees.

Communities



We uplift communities through programmes that deliver enduring social, economic or environmental benefits.

2018 Targets

Achieve over 10,000 hours of staff volunteerism worldwide.

Support initiatives to promote the social development of local communities where we operate.

2018 Performance

Sponsored and participated in a wide range of community initiatives, investing \$8.9 million in social causes.

Achieved over 14,000 hours of community service, an increase of about 2,000 hours compared to 2017.

Committed \$10 million to the Institute of Technical Education (ITE) to promote education for financially-disadvantaged students.

Donated \$1 million to the President’s Challenge to support over 50 social service organisations that provide programmes to empower the vulnerable in society.

Committed RMB 5 million to the China Foundation for Poverty Alleviation in support of projects to benefit impoverished communities in China.

Renewed partnership with Esplanade – Theatres on the Bay for Keppel Nights, with a commitment of \$500,000 over three years to provide students from heartland schools with access to performing arts.

2019 Targets

Achieve over 10,000 hours of staff volunteerism worldwide.

Support programmes aligned with Keppel’s sustainability framework of Sustaining Growth, Empowering Lives and Nurturing Communities.

Drive collaboration with organisations that share our commitment to have a positive impact on our communities.

Topics

Social investment

Volunteerism

Impact measurement

SDGs



Overview

Keppel aims to deliver lasting socio-economic benefit to the communities where we operate. In engaging and nurturing communities, we contribute to achieving a sustainable future together.

We invest in programmes aligned with our Sustainability Framework, which outlines Keppel's commitment to Sustaining Growth, Empowering Lives and Nurturing Communities.

We champion initiatives that protect and help improve the environment. As leaders in our businesses, we also support industry efforts that foster collaboration to promote sustainable development.

We empower lives by promoting education and spearheading initiatives that promote creativity through instilling an appreciation for the arts in children and youth.

Management Approach

GRI 103-1 | 103-2 | 103-3 | 203-2

In partnership with organisations that share our values, we commit up to 1% of the Group's net profit to worthy social and environmental causes. These contributions are coordinated and disbursed by Keppel Care Foundation, the Group's philanthropic arm, which is governed by its own Board of Directors. The Foundation has disbursed over \$36 million to worthy causes till date, since its launch in 2012. In 2018, the Group spent \$8.9 million on social investments.

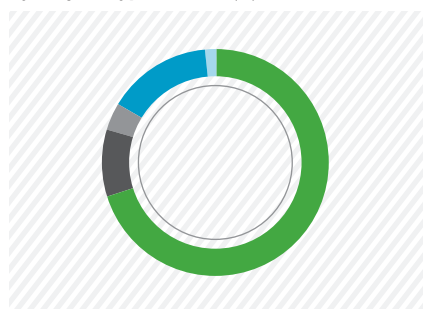
To deliver a greater positive impact, we bolster philanthropic giving with employee volunteerism led by Keppel Volunteers, the Group's volunteer movement. Employees are given two days of paid volunteer leave annually. In 2018, Keppel Volunteers achieved over 14,000 hours of community service, an increase of 2,000 hours over the 12,000 hours in 2017.

We maximise our corporate giving outcomes by partnering businesses and the community. For example, donation drives and environmental campaigns are held at the lobbies of our commercial buildings to engage tenants, employees and members of the public. Keppel Care Foundation also supports the dollar-for-dollar matching of employee donations at the company's fund-raising events.

In Singapore, our business units have been strong partners of Community Chest's SHARE, a voluntary employee payroll donation programme. Employees of the Keppel Group have contributed over \$2.9 million through SHARE since 1988. Keppel also contributes to overseas communities where we have a presence. For example, Keppel AmFELS has donated over US\$2 million in employee contributions to the United Way of Southern Cameron County in Texas, the United States, since 2000 to aid disadvantaged children and families.

Keppel follows the LBG (formerly London Benchmarking Group) framework, the global standard for measuring and reporting on corporate community investment. As managers of LBG, Corporate Citizenship has assured the data in this section. Our LBG Assurance Statement for 2018 can be found on page 91.

Social Investment Spending by Project Type in 2018 (%)



● Education*	70.1
● Industry Advancement	9.6
● Arts/Sports/Community Development Projects	3.9
● Care for the Underprivileged/Healthcare	14.9
● Environment	1.5
Total	\$8.9 million
	100.0

* Includes a \$5 million donation (first payment tranche) to the ITE Education Fund. Keppel had committed a \$10 million donation to the Fund to promote education for financially-disadvantaged students from ITE on the occasion of Keppel Corporation's 50th anniversary in 2018.

Impact at a Glance

>\$36.3m

Disbursed by Keppel Care Foundation since 2012.

\$8.9m

Invested in social causes in 2018.

>400

Scholarships, bursaries and study grants awarded to underprivileged and deserving students since 2011.



>14,000hrs

Of community work achieved by Keppel Volunteers in 2018, translating to estimated manpower costs of \$360,000.

>2,600 lives

Touched through our volunteerism efforts in 2018.

>1,600

Low-income households benefited from the food and household items provided by Keppel.



>1.3m

Visitors to the Keppel Centre for Art Education since its launch in 2015.

>24,000

Students benefited from the Keppel Nights programme with Esplanade – Theatres on the Bay since its relaunch in 2013.



>1m

Visitors to the Learning Forest, which the Keppel Discovery Wetlands is part of, since its launch in 2017.

90%

Of employees affirmed that Keppel is committed to corporate social responsibility.

Communities

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 \$16 million to educational causes, which include scholarships and bursaries for students of local universities and institutes of higher learning.

In 2018, we made a \$10 million commitment to the ITE Education Fund to promote education for financially disadvantaged students from ITE. The commitment was pledged at the

Keppel Corporation 50th anniversary gala dinner, and the first payment tranche of \$5 million was disbursed in 2018.

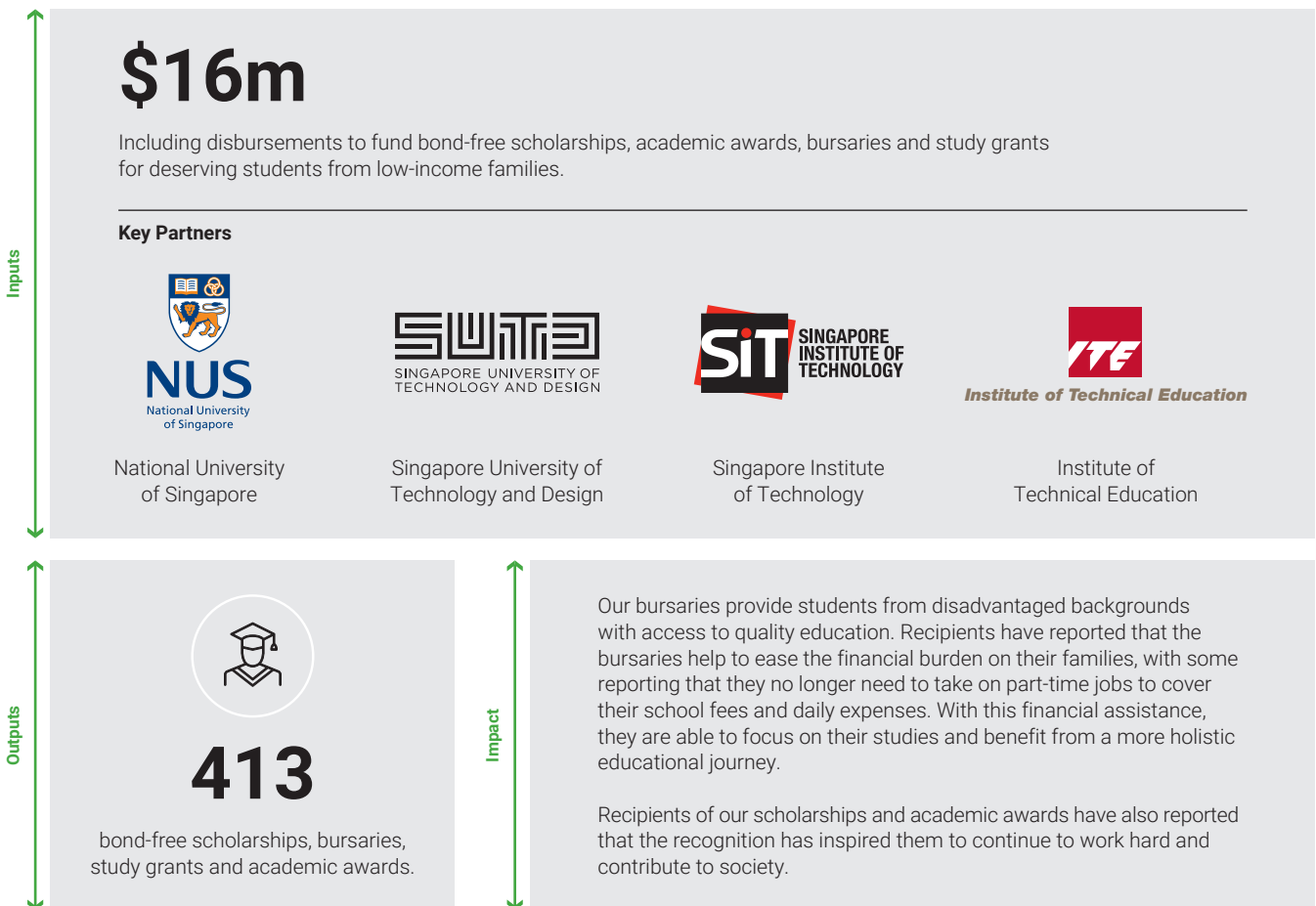
[Read more about our donation to promote education on page 82.](#)

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 will in turn contribute to the vibrancy of our communities.

"I would like to thank Keppel Corporation for the Keppel Study Grant, which gave me much needed support during my time as a student at the Singapore Institute of Technology. Being awarded the Study Grant allowed me to focus more on my studies, which paved the way for me to be the first in my family to obtain a university degree."

Ng Weng Pung, Engineer, Keppel Study Grant recipient in academic years 2013/2014 and 2014/2015, and Singapore Institute of Technology 2015 graduate.



Keppel Centre for Art Education

Inputs

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.

Outputs

The Centre has hosted over 1.3 million visitors since its launch in 2015. Guided school tours and workshops at the Keppel Centre for Art Education introduce visual literacy, as well as analytical and interpretive skills to students.

As part of the Singapore Ministry of Education's museum-based learning programme, over 60% of the country's Primary 4 pupils visited the National Gallery Singapore in 2018. The majority of students participating in the programme visited the Centre.

Over 78,000 families participated in the Centre's programmes such as Art Explorer and Stories in Art in 2018.

In 2018, the Centre was named Winner of the Children in Museums Award 2018. The international competition, which drew participation from 35 museums around the world, recognised the Centre's excellent, well-designed exhibitions for young visitors.

Impact

Educators have shared that the immersive spaces at the Centre encourage creativity and self-led exploration in children, and helps to improve students' visual inquiry skills. The programmes offered at the Centre also promote familial bonding.



Keppel Nights

Inputs

Keppel Corporation committed \$500,000, from 2018 to 2020, to Keppel Nights, renewing its partnership with Esplanade – Theatres on the Bay to nurture a deeper appreciation of the arts among students in Singapore. In 2018, Keppel Nights expanded its scope to include Esplanade's sensory-friendly performances designed for audiences with special needs.

Outputs

Since 2013, the partnership has provided about 24,000 students from more than 75 schools in the heartlands with access to arts and cultural shows presented by the Esplanade.

Keppel Nights also includes an element of experiential learning, with dance and music workshops that give students the chance to try out various art and cultural forms and get a taste of performing.

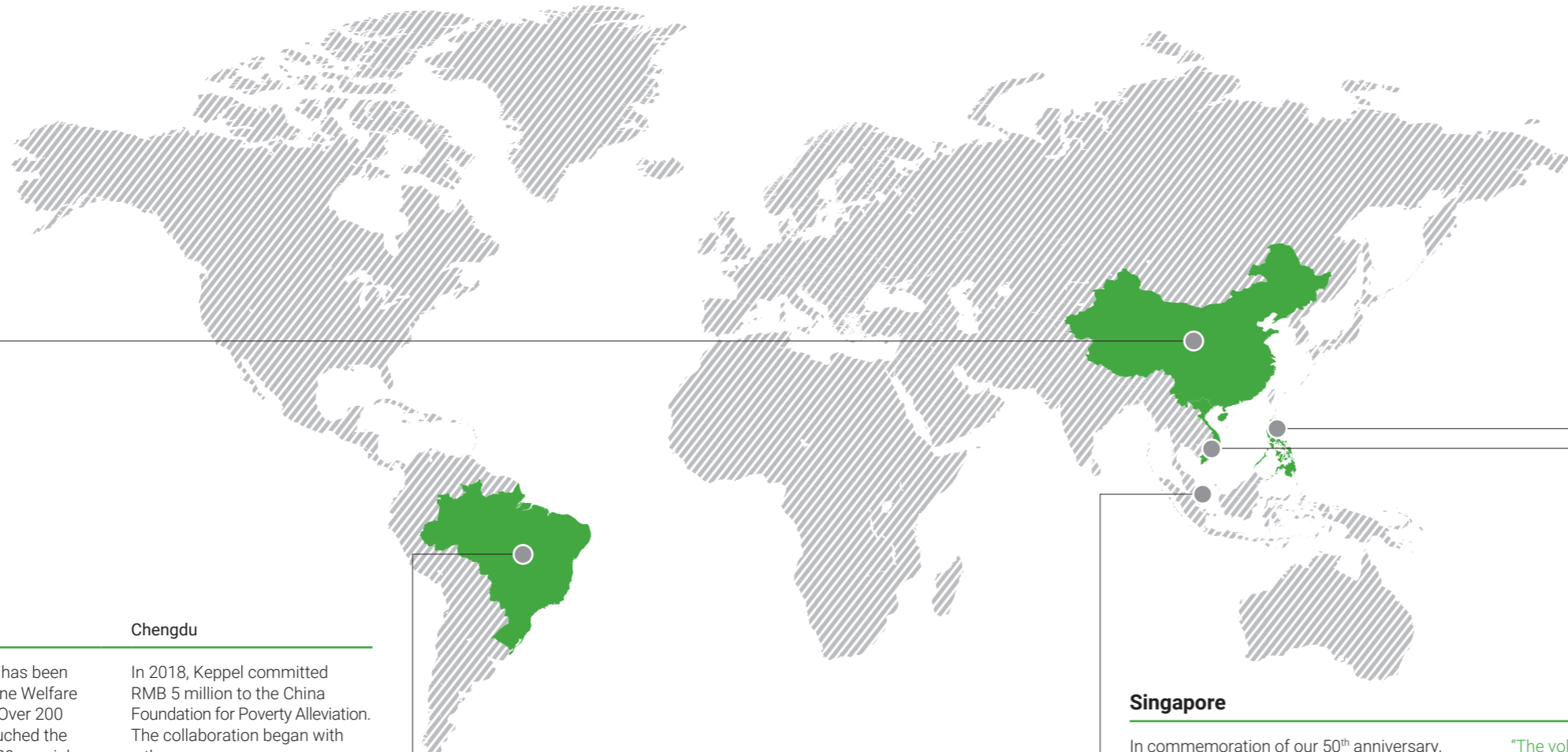
Impact

Students have reported an increased interest in the arts and improved confidence and self-esteem after participating in Keppel Nights programmes. The sensory-friendly performances also provide students with special needs with opportunities to access arts and cultural shows.



Communities

Committed to being a good corporate citizen, Keppel supports meaningful initiatives that uplift communities in countries where we have a presence in.



China
Tianjin

Keppel Land China has been a partner of Sunshine Welfare Home since 2017. Over 200 volunteers have touched the lives of more than 80 special needs students through regular activities and excursions. In 2018, Keppel Land Tianjin rallied its contractors to help in renovating and upgrading the home.

Chengdu

In 2018, Keppel committed RMB 5 million to the China Foundation for Poverty Alleviation. The collaboration began with a three-year programme focused on needy students from 10 schools in the Mabian County, Sichuan Province. Keppel Volunteers engage underprivileged students in Mabian County, through interactive story-telling sessions and educational games.

➔ Read more about our donation to support needy students in China on page 83.



Brazil

In the Teach-it-Forward programme, Keppel Volunteers host students at the BrasFELS shipyard and provide mentorship. In 2018, about 100 students participated in the programme. Separately, volunteers provided health education and environmental awareness talks to 140 members of the community.



Singapore

In commemoration of our 50th anniversary, we donated \$1 million to the President's Challenge to support over 50 social service organisations that provide programmes to empower the vulnerable in society.

➔ Read more about our donation to empower vulnerable groups on pages 81 to 83.

As part of our skills-based volunteerism efforts, finance staff across the Group organised a financial literacy carnival for underprivileged families supported by Care Corner. A career fair was separately organised by 60 volunteers to nurture the career aspirations of close to 50 children from Care Corner.

Keppel Volunteers also reached out to needy dialysis patients through bi-monthly food delivery and home visits as part of The National Kidney Foundation's (NKF) Grains of Hope programme.

To meet the needs of low income households, 240 volunteers packed and distributed over 1,600 goodie bags comprising food and household items sponsored by Keppel during the year.

The Philippines

In 2018, we awarded 75 out-of-school youths with full scholarships in technical trades such as flux-cored arc welding, shielded metal arc welding and structural fitting. Training sessions were conducted at the Keppel Batangas Training Centre.

Over 100 volunteers also participated in National Schools Maintenance Week and helped with maintenance work and the clean-up of six public schools. A book reading session was also held at the SIBOL Learning Centre at the Keppel-GK Eco Village, with the aim of inculcating reading habits in young children.



Vietnam

We extended our support for Phase Two of Words on Wheels, a mobile library programme in partnership with the Singapore International Foundation, the General Sciences Library of Ho Chi Minh City and Hanoi Public Library. In 2018, 2,500 students from seven primary and secondary schools participated in sessions organised by Keppel Volunteers which included English lessons on green living and financial literacy as well as mobile library visits. Volunteers also helped in the refurbishment of a school library.

Separately, over 200 volunteers and their families participated in the Keppel Run4Future charity run in Ho Chi Minh City. At the event, Keppel Land presented 15 scholarships worth VND 225 million to students of Big Friend Foundation, a charity supporting needy Vietnamese high school graduates.

"The volunteers from Keppel not only delivered provisions to my house but took time to chat with me to understand the challenges I face in my daily life. The provisions are important and help with my day-to-day living. It is really great to know that there are many people who care and are willing to help. The volunteers encouraged me and gave me good advice, and this really motivated me to keep improving myself. I am so grateful for their time and help."

Mohd Rosli Ramdan,
a 52-year-old dialysis patient at NKF



Communities

Advancing Corporate Sustainability

We collaborate with governments and industry partners to support knowledge-sharing platforms that promote responsible business practices and sustainable urbanisation.

Key Initiatives	Outputs & Impacts
UNLEASH	Keppel was the main track partner of the 'Sustainable Cities and Communities' theme at UNLEASH 2018. The event served as a global innovation lab where 1,000 sustainability talents from over 110 countries convened to develop solutions for eight selected Sustainable Development Goals (SDGs). Six Keppel talents from across the Group also participated in the eight-day innovation lab where they worked on innovative solutions to advance the SDGs.
Lee Kuan Yew World City Prize	Keppel is the sole sponsor of the Lee Kuan Yew World City Prize. The biennial award, presented to Seoul at the World Cities Summit 2018, recognises the outstanding achievements and contributions of cities and key leaders in tackling urban challenges and creating liveable, vibrant and sustainable communities around the world.
Singapore International Water Week	Keppel is a Founding Sponsor of the Singapore International Water Week, an industry-focused global platform which encourages participants to share and co-create innovative water solutions.
Global Compact Network Singapore Summit	Keppel supported the Global Compact Network Singapore Summit 2018 as a Gold Partner. Themed 'Building Better Businesses', the conference explored the latest sustainability trends and insights to build more robust and future-ready businesses.
Responsible Business Forum	Keppel was the supporting partner of the Responsible Business Forum 2018, themed 'Shaping the World in 2030: Partnerships for SDG Action'. The forum explored practical solutions across five areas critical to the attainment of the SDGs – climate action, urbanisation, circular economy, human rights and food and nutrition.

Raising Eco-Consciousness

We work closely with partners to lead initiatives that conserve biodiversity and promote climate action.

Key Initiatives	Outputs & Impacts
Keppel Discovery Wetlands	<p>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 freshwater forest wetland in the heart of the city. Over 1 million people have visited the Learning Forest, which the Keppel Discovery Wetlands is part of, since its launch in March 2017.</p> <p>In 2018, selected Keppel Volunteers successfully trained to become green ambassadors at the Keppel Discovery Wetlands. Our green ambassadors promote conservation through leading tours at the Keppel Discovery Wetlands and facilitating children crafts workshops on wetland habitats. Employees who participated in the training reported improved presentation skills and knowledge on flora and fauna in the wetlands.</p> <p>In recognition of the Group's support of conservation efforts, a Heritage Tree at the Singapore Botanic Gardens was dedicated by Singapore's National Parks Board to Keppel in January 2019.</p>
Eco Action Day	<p>For the fifth year running, Keppel Land and Keppel REIT Management collaborated with Ricoh Asia Pacific to support Eco Action Day, an annual nationwide campaign that encourages awareness of, and action for, the environment.</p> <p>As part of the campaign, a tree sapling was planted for every corporate pledge for climate action. Close to 200 corporate pledges and 500 individual pledges were canvassed at roadshows held at Keppel Land and Keppel REIT's buildings.</p> <p>Staff from Keppel Land and Keppel REIT, together with their families, participated in the tree planting event held in October 2018, during which over 300 tree saplings were planted.</p>
Earth Hour	Keppel demonstrated its support for climate action by participating in Earth Hour 2018. Non-essential lights at 34 of Keppel's commercial, residential and hospitality developments in Singapore and overseas were turned off for an hour.
Encouraging reduced use of plastics	<p>Keppel Land and Keppel REIT, supported by the Singapore Green Building Council, jointly organised a public screening of 'A Plastic Ocean' at the Singapore Botanic Gardens, which was attended by about 1,000 people.</p> <p>Separately, Keppel Land launched its 'Plastic Straw Free' challenge at Saigon Centre retail mall in Vietnam to encourage eco-friendly practices among shoppers and tenants.</p>
Tree planting and coastal cleanups	Keppel Volunteers planted 50 trees in Singapore as well as cleared 892 kilogrammes of marine trash in Singapore and the Philippines combined.

Celebrating 50 years: Doing Well, Doing Good

Keppel commemorated its 50th anniversary by making several donations in support of meaningful causes.



1 President Halimah Yacob (seated, centre), Dr Lee Boon Yang (standing, rightmost), Chairman of Keppel Corporation, and Loh Chin Hua (standing, second from left), CEO of Keppel Corporation, joined Keppel's beneficiaries from Montfort Care and Care Corner in an intergenerational crafts workshop.

2 Over 200 staff participated in a 50 km relay in support of the President's Challenge.

Keppel is committed to making a positive impact in the communities where we operate. 3 August 2018 marked Keppel Corporation's 50th anniversary. Since its beginnings as a small shipyard incorporated in 1968, Keppel has grown and diversified into a multi-business company, providing solutions for sustainable urbanisation. We commemorated this important milestone by giving back to the community, including making several donations in support of meaningful causes.

Empowering Vulnerable Groups

In July 2018, Keppel made a \$1 million donation to the President's Challenge 2018 to support over 50 social service organisations that provide programmes to empower the vulnerable in society.

The donation was made at the Keppel 50 Charity Run, where over 200 Keppel staff participated in a 50 km relay in support of President's Challenge and to mark the company's golden jubilee. At the event, Keppel Volunteers also held an intergenerational crafts workshop to share this special occasion with the children from Care Corner and elderly from Montfort Care.



Guest of honour President Halimah Yacob, who received the donation on behalf of President's Challenge at the event, said, "I am heartened that Keppel has chosen to celebrate its 50th anniversary by giving back to society, and helping

the less privileged among us. I hope that companies in Singapore will continue to give generously, not only with financial support, but through volunteerism and sharing of knowledge and expertise."

Communities



1 Prime Minister Lee Hsien Loong (centre), who was the guest of honour at Keppel Corporation's 50th anniversary gala dinner, witnessed the cheque presentation by Dr Lee Boon Yang (second from left), Chairman of Keppel Corporation, and Loh Chin Hua (far left), CEO of Keppel Corporation, to Bob Tan (second from right), Chairman of ITE, and Low Khah Gek (far right), CEO of ITE.

2 Keppel Volunteers share their time, knowledge and skills to engage the students in Mabian County, China.

Promoting Education

In August 2018, Keppel continued its tradition of giving back to the community at its 50th anniversary gala dinner with a \$10 million donation to the Institute of Technical Education (ITE) to support the education of financially-disadvantaged students.

The donation to the ITE Education Fund is matched 1.5:1 by a Singapore government grant, which will result in a total contribution of \$25 million to ITE.

The donation is being used to set up the Keppel Care Foundation Scholarship and Keppel Merit Awards. The Keppel Care Foundation Scholarship aims to recognise and reward outstanding ITE students from disadvantaged backgrounds, while the Keppel Merit Awards provide monthly financial support for deserving students from low-income families. Up to three Keppel Care Foundation Scholarships valued at \$9,600 per recipient will be awarded annually, and up to 72 Keppel Merit Awards valued at \$3,000 per recipient will be given out each semester. Recipients will not be required to serve a bond.

In his speech, guest of honour Singapore Prime Minister Lee Hsien Loong commended Keppel for its investments in human capital and noted its partnerships with local universities and institutes of higher education.

Prime Minister Lee said, "You have forged tie-ups with the Institute of Technical Education, and sponsored scholarships with the Nanyang Technological University and the Singapore University of Technology and Design. I am happy that Keppel will be taking this further by making a \$10 million donation to the ITE Education Fund to establish the Keppel Care Foundation Scholarships and Keppel Merit Awards in ITE."

Dr Lee Boon Yang, Chairman of Keppel Corporation, said, "Keppel believes in investing in education and developing capabilities to support Singapore's growth into the future. We believe that by improving access to education, we will empower youths and maximise their potential. Keppel's donation towards the ITE Education Fund will expand the pool of financial assistance available to students, provide relief for them and their families, and encourage the students to continue to excel in their studies.

Bob Tan, Chairman of ITE, added, "Many students who enrol in ITE come from disadvantaged backgrounds. Providing financial assistance to these students will go a long way in helping them stay focused on their studies, instead of having to supplement family income with excessive part-time work.

“We are very grateful to Keppel for their generosity. It will most definitely help to alleviate the financial burden of our students and their families. This can make a big difference in their lives and future prospects.”

Beyond this donation to the ITE Education Fund, Keppel has a long-standing and holistic partnership with ITE to enhance the skills of students and guide their career paths. Keppel’s existing programmes with ITE include technical skills training and apprenticeships with relevant certifications, as well as internships and career placements.

Alleviating Poverty

The charitable activities held to commemorate our golden jubilee continued in China in end August 2018 with the launch of a new partnership with the China Foundation for Poverty Alleviation (CFPA) at a commemorative dinner in Beijing.

The company’s commitment of RMB 5 million will support the Chinese Government’s plans to combat rural poverty and stimulate the development of remote regions.

The collaboration with CFPA began with a three-year programme focused on needy students from 10 schools in Mabian County, Sichuan Province. The programme provides close to 2,000 students with nutritious food items every school day, encourages active learning, and cultivates good reading habits with library resources for beneficiary schools.

Beyond financial support, Keppel Volunteers from across the Keppel Group will also participate in the programme by volunteering their time, knowledge and skills to engage the students.

Touching Lives Abroad

Beyond Singapore and China, we support initiatives that uplift communities in countries where we have a presence in. Our sustained social welfare programmes include the Teach-it-Forward programme in Brazil, Keppel-GK Eco Village in the Philippines and the Words on Wheels programme in Vietnam.

[➤ Read more about how we impact communities around the world on pages 78 and 79.](#)



About this Report

This report focuses on the sustainability strategy and practices of Keppel Corporation and its subsidiaries, namely the material environmental, social and governance (ESG) aspects of our business operations.

This 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 robust materiality analysis process (see page 18). We printed limited copies of this report to minimise environmental impact. A PDF version is available at www.keppcorp.com.

Our stakeholders are advised to read Keppel Corporation's Report to Shareholders 2018, available at www.keppcorp.com/annualreport2018, for more information on the Group's businesses, strategy, performance and prospects.

Reporting Period & Standards

GRI 102-50 | 102-51 | 102-52 | 102-54

This report is published annually and covers the same period as the financial year of the Company (January to December 2018). Our last sustainability report was published in May 2018. Where possible, we shared three-year historical information to provide a meaningful basis for comparison.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option and Singapore Exchange-ST Listing Rules Practice Note 7.6 Sustainability Reporting Guide.

The report was submitted for the GRI Materiality Disclosures Service, and GRI confirmed the correctness of the locations of the materiality disclosures (GRI 102-40 to 102-49). The GRI Materiality Disclosures

Service organisational mark is located on page 85.

We used standard units of measurement. Conversion factors may be found in the relevant sections. All dollar values expressed are Singapore dollars.

Report Boundary

GRI 102-46 | 102-48 | 102-49

As a guide, this report covers global operations and all subsidiaries for which the Group has management control, unless otherwise indicated. The reporting boundary for financial data is the same as that of Keppel Corporation's Report to Shareholders 2018. The reporting boundaries for Environmental Management, Product Excellence, Safety & Health and Labour Practices & Human Rights differ, due to differences in where the impacts occur most for each topic. Business entities included within the boundaries contribute materially to overall Group performance.

The Company has 260 significant subsidiaries and associated companies as at 31 December 2018. Information pertaining to them is published on pages 193 to 204 of Keppel Corporation's Report to Shareholders 2018.

Potable water consumption for 2017 has been restated on page 43 of this report for corrections to historical data.

Independent Assurance

GRI 102-56

Keppel Corporation appointed an independent third party, DNV GL, to provide assurance on this report. The content was reviewed and the accuracy and reliability of the statements were validated in accordance with the DNV GL Verification Protocol for Sustainability Reporting, VeriSustain™.

The principles and concepts in this protocol draw on the GRI Standards, the AA1000 Assurance Standard 2008 by AccountAbility and the International Standard on Assurance Engagements 3000 by the International Federation of Accountants.

All underlying systems and processes that support the Company's sustainability framework were reviewed in adherence to the AA1000 AccountAbility Principles (2018) of Inclusivity, Materiality, Responsiveness and Impact, as well as the GRI Standards. The Assurance Statement is published on pages 89 and 90.

Feedback

GRI 102-53

This report demonstrates our commitment to keep our stakeholders abreast of Keppel's sustainability performance. We welcome feedback.

Phone/Email:

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Media Relations	+65 6413 6425 / keppelgroup@keppcorp.com
Investor Relations	+65 6413 6436 / investor.relations@keppcorp.com

Global Reporting Initiative (GRI) Content Index

GRI 102-55



This report has been prepared in accordance with the GRI Standards: Core option

GRI 102-54

GRI Standard	Disclosure Number	Disclosure Title	Page Reference and Remarks*	Connections to UN initiatives
General Disclosures				
GRI 101: Foundation 2016				
Organisational Profile				
GRI 102: General Disclosures 2016	102-1	Name of the organisation	Cover	UNGC Principles 1-10; SDG 3, 6, 7, 8, 9, 11, 12, 13, 16, 17
	102-2	Activities, brands, products, and services	8-14	
	102-3	Location of headquarters	Back Cover	
	102-4	Location of operations	14	
	102-5	Ownership and legal form	14, AR 2018 (193-204, 221)	
	102-6	Markets served	8-14	
	102-7	Scale of the organisation	8-14, 22-25	
	102-8	Information on employees and other workers	65-68	
	102-9	Supply chain	49	
	102-10	Significant changes to the organisation and its supply chain	23, 49-50	
	102-11	Precautionary Principle or approach	31-36, AR 2018 (99-100)	
	102-12	External initiatives	9-13, 19-20	
	102-13	Membership of associations	16, 57-61	
Strategy				
	102-14	Statement from senior decision-maker	2-4	
	102-15	Key impacts, risks, and opportunities	8-13, 33-38, AR 2018 (16-21)	
Ethics & Integrity				
	102-16	Values, principles, standards, and norms of behaviour	Inside Front Cover, 6-7, 38	UNGC Principles 1-10; SDG 16
	102-17	Mechanisms for advice and concerns about ethics	31-32, 38, AR 2018 (83-87)	
Governance				
	102-18	Governance structure	15, 27-32	UNGC Principle 10; SDG 16
	102-19	Delegating authority	15	
	102-20	Executive-level responsibility for economic, environmental, and social topics	15	
	102-21	Consulting stakeholders on economic, environmental, and social topics	16-17	
	102-22	Composition of the highest governance body and its committees	15, 27-28	
	102-23	Chair of the highest governance body	27-28	
	102-24	Nominating and selecting the highest governance body	29-30	
	102-25	Conflicts of interest	28-29	
	102-26	Role of highest governance body in setting purpose, values, and strategy	15, 27-28	
	102-27	Collective knowledge of highest governance body	28-29, AR 2018 (96)	
	102-28	Evaluating the highest governance body's performance	28-29, AR 2018 (91-92, 96)	
	102-29	Identifying and managing economic, environmental and social impacts	15	
	102-30	Effectiveness of risk management processes	38, AR 2018 (89)	
	102-31	Review of economic, environmental, and social topics	15, AR 2018 (73)	
	102-32	Highest governance body's role in sustainability reporting	15	
	102-33	Communicating critical concerns	27-28, 31-32, AR 2018 (99)	
	102-35	Remuneration policies	30-31, AR 2018 (77-82)	
	102-36	Process for determining remuneration	30-31, AR 2018 (77-82)	

* References to Keppel Corporation's Report to Shareholders 2018 are expressed as 'AR 2018 (page number)'. Keppel Corporation's Report to Shareholders 2018 is available at www.keppcorp.com/annualreport2018

Global Reporting Initiative (GRI) Content Index

GRI Standard	Disclosure Number	Disclosure Title	Page Reference and Remarks*	Connections to UN initiatives
General Disclosures				
Stakeholder Engagement				
GRI 102: General Disclosures 2016	102-40	List of stakeholder groups	17	UNGC Principle 3; SDG 8, 17
	102-41	Collective bargaining agreements	66	
	102-42	Identifying and selecting stakeholders	16-17	
	102-43	Approach to stakeholder engagement	17, 54	
	102-44	Key topics and concerns raised	17	
Reporting Practice				
	102-45	Entities included in the consolidated financial statements	14, AR 2018 (193-204)	
	102-46	Defining report content and topic Boundaries	18, 84	
	102-47	List of material topics	18	
	102-48	Restatements of information	84	
	102-49	Changes in reporting	84	
	102-50	Reporting period	84	
	102-51	Date of most recent report	84	
	102-52	Reporting cycle	84	
	102-53	Contact point for questions regarding the report	84	
	102-54	Claims of reporting in accordance with the GRI Standards	84-85	
	102-55	GRI content index	85-88	
	102-56	External assurance	84, 89-90	
Topic-Specific Disclosures				
Economic Sustainability				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	23, AR 2018 (16-21)	SDG 8, 9, 11, 17
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	25	
	201-4	Financial assistance received from government	25	
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	24	
Corporate Governance				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	27-33	UNGC Principle 10; SDG 16, 17
GRI 205: Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	36	
	205-2	Communication and training about anti-corruption policies and procedures	31-32, 38	

* References to Keppel Corporation's Report to Shareholders 2018 are expressed as 'AR 2018 (page number)'. Keppel Corporation's Report to Shareholders 2018 is available at www.keppcorp.com/annualreport2018

GRI Standard	Disclosure Number	Disclosure Title	Page Reference and Remarks*	Connections to UN initiatives
Topic-Specific Disclosures				
Environmental Management				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	40-41	UNGC Principles 7-9; SDG 3, 6, 7, 12, 13
GRI 302: Energy 2016	302-1 302-4	Energy consumption within the organisation Reduction of energy consumption	41-42 41-42	
GRI 303: Water 2016	303-1 303-3	Water withdrawal by source Water recycled and reused	42-43 42-43	
GRI 305: Emissions 2016	305-1 305-2 305-5 305-7	Direct (Scope 1) GHG emissions Energy indirect (Scope 2) GHG emissions Reduction of GHG emissions Nitrogen oxides (NO _x), sulphur oxides (SO _x), and other significant air emissions	42-45 42-45 44 42, 44	
GRI 306: Effluents & Water 2016	306-2 306-3	Waste by type and disposal method Significant spills	42-43 44	
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	44	
Product Excellence				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	52-53	SDG 9, 11, 17
GRI 416: Customer Health & Safety 2016	416-1 416-2	Assessment of the health and safety impacts of product and service categories Incidents of non-compliance concerning the health and safety impacts of products and services	53-54 54	
Labour Practices & Human Rights				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	66-68	UNGC Principles 1-6; SDG 3, 4, 8, 17
GRI 202: Market Presence 2016	202-2	Proportion of senior management hired from the local community	65	
GRI 401: Employment 2016	401-1 401-2 401-3	New employee hires and employee turnover Benefits provided to full-time employees that are not provided to temporary or part-time employees Parental leave	66-67 66 66	
GRI 404: Training & Education 2016	404-1 404-2 404-3	Average hours of training per year per employee Programmes for upgrading employee skills and transition assistance programmes Percentage of employees receiving regular performance and career development reviews	68-69 68-69 66	
GRI 405: Diversity & Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	68	
GRI 406: Non-Discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	66-68	

* References to Keppel Corporation's Report to Shareholders 2018 are expressed as 'AR 2018 (page number)'. Keppel Corporation's Report to Shareholders 2018 is available at www.keppelcorp.com/annualreport2018

Global Reporting Initiative (GRI) Content Index

GRI Standard	Disclosure Number	Disclosure Title	Page Reference and Remarks*	Connections to UN initiatives
Topic-Specific Disclosures				
Safety & Health				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	57-61	SDG 3, 8, 17
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	57-61	
	403-2	Hazard identification, risk assessment, and incident investigation	57-62	
	403-3	Occupational health services	57-61	
	403-4	Worker participation, consultation, and communication on occupational health and safety	57-61	
	403-5	Worker training on occupational health and safety	57-61	
	403-6	Promotion of worker health	57-61	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	49-50, 57-61	
	403-9	Work-related injuries	61-62	
Supply Chain & Responsible Procurement				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	49-50	UNGC Principles 1-10; SDG 8, 12, 16
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	49-50	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	49-50	
Community Development				
GRI 103: Management Approach 2016	103-1/ 103-2/ 103-3	Management Approach	73	SDG 3, 4, 15, 17
GRI 203: Indirect Economic Impacts 2016	203-2	Significant indirect economic impacts	73-83	

* References to Keppel Corporation's Report to Shareholders 2018 are expressed as 'AR 2018 (page number)'. Keppel Corporation's Report to Shareholders 2018 is available at www.keppcorp.com/annualreport2018

Independent Assurance Statement

GRI 102-56

DNV·GL

Introduction

DNV GL, represented by DNV GL Business Assurance Singapore Pte. Ltd., has been commissioned by the management of Keppel Corporation Ltd. (Keppel) to carry out an independent assurance engagement for the non-financial, qualitative and quantitative information (sustainability performance) reported in the Keppel Corporation Sustainability Report 2018 (the Report), which is available from Keppel's website and in print, for the financial year ending 31 December 2018.

We performed engagement assurance using AccountAbility's AA1000 Assurance Standard 2008 (AA1000AS) with 2018 Addendum and DNV GL's assurance methodology VeriSustain™ (Version 5.0), which is based on our professional experience, international assurance best practices including International Standard on Assurance Engagements 3000 (ISAE 3000) Revised² and the Global Reporting Initiative (GRI) reporting principles on Content and Quality. The intended users of this assurance statement are the stakeholders of the Company.

Scope of Assurance

The scope of assurance included a review of sustainability disclosures and performance data from Keppel and its subsidiaries which Keppel has operational control in and outside of Singapore. The boundary of the report for identified material topics and topic-specific disclosures are defined in the respective chapters and unless otherwise stated, will include those subsidiaries that Keppel has management control. We evaluated the Report for adherence to the reporting principles for defining the sustainability report content as set forth in the GRI Standards. We understand that the reported financial data and information are based on Keppel's and respective subsidiaries' financial statements, which are subject to a separate independent audit process. The review of financial data taken from the financial statements is not within the scope of our work.

Responsibilities of the Management of Keppel and of the Assurance Provider

Keppel has sole responsibility for the integrity of the report and the responsibility includes designing, implementing, and maintaining internal controls over collection, analysis, aggregation, preparation and fair presentation of the Report, and data that are free from material misstatement, including maintaining integrity of the information on its website. In performing our assurance work, our responsibility is solely towards the management of Keppel in accordance with the terms of reference agreed on with Keppel. However, our statement represents our independent opinion and is intended to inform the independent

conclusion of our verification to Keppel's stakeholders. DNV GL is responsible for planning and performing the engagement to obtain moderate level of assurance based on AA1000AS i.e. whether the reported disclosures are free from material misstatement and meets the GRI Standards (2016) disclosure requirements and selected GRI Standards (2018) for identified material topics in accordance with the core option of reporting.

Basis of our Opinion

Our assurance opinion is based on the Type 2, Moderate level of assurance engagement in line with the AA1000AS requirements and DNV GL's assurance methodology, VeriSustain™. A multi-disciplinary team of sustainability and assurance specialists performed the work at Keppel's corporate headquarters and its subsidiaries in Singapore – Keppel Infrastructure, Keppel Land and Keppel Capital, in March and April 2019 to verify the qualitative and quantitative disclosures, including testing the reliability of data and the robustness of the data aggregation process, such as the related management approach for identified material topics.

As part of the verification, we planned and performed our work based on DNV GL's risk-based approach to obtain the evidence that we considered necessary to provide a basis for our assurance opinion. Within the framework of our assessment, we performed the following procedures and other activities including:

- Conducted interviews with data owners from Keppel Corporation and its subsidiaries including Keppel Infrastructure, Keppel Land and Keppel Capital, to understand the key processes and controls for reporting subsidiary performance data;
- Assessed the robustness of the underlying data and information flow and controls;
- Performed data analysis using a risk-based approach and materiality;
- Challenged the sustainability-related disclosure, statements and claims;
- Performed limited testing on a sampling basis of the selected information at Keppel's corporate headquarters and subsidiaries' headquarters to check that the selected environmental and social data had been properly measured, gathered, recorded, collated and reported.

We also performed the following activities to assess the adherence to reporting principles:

- Interviewed senior managers and representatives responsible for sustainability management and made enquiries to determine their understanding of stakeholder engagement and materiality;

- Reviewed the current sustainability issues that could affect Keppel and could be of interest to stakeholders.

Conclusion

Based on the work undertaken, we provide a moderate level of assurance over non-financial disclosure presented in Keppel's Report, and based on the scope of this assurance engagement and in doing so, nothing has come to our attention to suggest that the Report is not a fair representation of Keppel's related sustainability performance for the identified scope and boundary of reporting.

Without affecting our assurance opinion, we also provide the following observations regarding the adherence to the reporting principles for defining the sustainability report content and for defining report quality as defined in the GRI Standards.

Inclusivity

Keppel has identified six internal and external stakeholder groups such as customers, employees, governments, shareholders, local communities and suppliers. Keppel's stakeholder engagement activities occurred at the Group and business unit level through various platforms. Keppel has embarked on a stakeholder consultation exercise at the end of 2018 covering the various stakeholder groups and this is targeted for completion in mid-2019. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Inclusivity.

Materiality

Keppel revisited its material topics through an annual internal exercise. In 2018, Keppel reviewed the material environmental, social and governance issues internally with the Keppel Corporation Board of Directors as well as the Group Sustainability Steering Committee and Working Committee. Keppel could consider a review of the materiality following the stakeholder engagement exercise as well as consideration of material topics from new business acquisitions. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Materiality.

Responsiveness

The Report provides an overview of the Group's activities; it keeps stakeholders informed of corporate decisions in terms of achievements and performance in relation to the sustainability material arguments. Keppel's stakeholder dialogues and materiality review were used to determine the type of information that is material to stakeholders. The Report has brought out responses to the identified material topics and fairly disclosed the

¹ The VeriSustain protocol is available on request from the DNV GL website (www.dnvgl.com).

² Assurance engagements other than audits or reviews of historical financial information.

Independent Assurance Statement

strategies and management approach and challenges considering the overall sustainability context and external environment of its business within the identified reporting boundary. The Report could further bring out the long and medium-term targets related to the identified material topics.

Impact

Keppel has identified Sustainable Development Goals (SDGs) where it contributes to. In 2018, Keppel has applied the LBG Framework³ to quantify the Company's contribution to communities and understand the impact it has on the communities and for the business. The case studies presented in the Report provided insight on how Keppel can have an impact on the environment, how Keppel develops innovative solutions in its business, and how its businesses benefit different communities through its products and services. DNV GL recommends that Keppel sets consistent and clear boundaries, as well as a purpose, time period and scope, for impact assessment in subsequent reports.

Accuracy & Reliability

Keppel has selected, compiled and reported information in a relatively consistent manner. Any errors or misstatements identified during the assurance engagement were communicated for correction prior to the Report being published. DNV GL concludes that the level at which the Report adheres to the principle of accuracy, and the reliability of the information on sustainability performance can be enhanced by internal verification checks to improve consistency in data collection.

Specific Evaluation of the Information on Sustainability Performance

The Report covers global operations and key subsidiaries and associated companies for which Keppel has management control, unless otherwise indicated. The reporting of the sustainability performance presented in the Report is collected centrally by a dedicated function in the Group and consolidated for reporting. Keppel uses a system called CR360 to gather sustainability performance data globally. The data used for the Report this year is based on a combination of manual collection and collated information from CR360. The Report presents Keppel's non-financial performance in the wide context of sustainability and explains how various initiatives from Keppel and its subsidiaries are aligned with achieving United Nations SDGs.

Completeness

The Report has adequately covered the sustainability strategy, management approach

and sustainability performances against the material topics identified. The boundary of the Report covers the sustainability performances from the global operations, subsidiaries and associated companies over which the Keppel Group has management control. With recent new acquisitions, the reporting boundary of Keppel could be expanded to include the subsidiaries which may also be material to the organisation.

Balance & Neutrality

The document allows the reader to examine both the positive and the negative trends of Keppel's performance in 2018, presenting a balanced account of the activities and results relevant to the reporting year, which is consistent with the corporate strategies. We consider the Report to be a fair description of Keppel's sustainability impact. Nothing has come to our attention to suggest that the Report does not meet the requirements related to the Principle of Balance and Neutrality.

Limitation

Our assurance relies on the premise that the data and information provided by Keppel to us as part of our review procedures have been provided in good faith and free from misstatements. Because of the selected nature (sampling) and other inherent limitation 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 associated companies, suppliers, contractors and any third-parties mentioned in the Report. The company's position statements, the statements for the management approach, case studies and examples are excluded from the scope of our work. We did not interview external stakeholders as part of this assurance engagement.

The reported disclosures related to Economic performances are based on the financial disclosures and data, which were cross-checked with internal documents and the audited consolidated financial statements. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organisation were applied as per the agreed scope of engagement. The data for Environmental and Social performance are verified with random samples of data, and the aggregated data at the corporate level is used for the verification. The procedures performed in a limited/moderate level of assurance engagement vary in nature and timing, and are less in extent than for a reasonable/high level of

assurance engagement. We expressly disclaim any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Statement of Competence & Independence

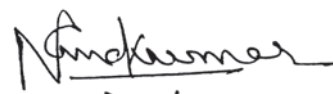
DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 – Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV GL Code of Conduct⁴ during the assurance engagement, and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward stakeholders interviewed during the assurance process. DNV GL did not provide any services to Keppel during 2018 that could compromise the independence or impartiality of our work.

For and on behalf of DNV GL Business Assurance Singapore Pte. Ltd.



Grace Cheah
Lead Assurer

DNV GL Business Assurance
Singapore Pte. Ltd



Nandkumar Vadakepath
Assurance Reviewer

Head, Sustainability Operations
DNV GL Business Assurance
India Pvt. Ltd. India

8 May 2019



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Licensed Assurance Provider
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³ The LBG Framework measures a company's overall contribution to the community, taking account of cash, time and in-kind donations, as well as management costs. The framework also records the outputs and longer-term community and business impacts of community investment projects.

⁴ The DNV GL Code of Conduct is available from the DNV GL website (www.dnvgl.com).

LBG Assurance Statement 2018



Corporate Citizenship has been asked by Keppel Corporation to review its use of the LBG Framework to measure and report on the company's corporate community investment activities occurring between January 2018 and December 2018.

The LBG Framework helps businesses measure, manage and report their corporate community investment activities. It moves beyond charitable donations to include the full range of contributions, or inputs, made to community causes (including time, in-kind and cash donations). It also assesses the actual results for the community and for the business, also known as outputs and impacts (see www.lbg-online.net for more information).

The scope of the LBG assurance covers the information presented in the Communities section of Keppel Corporation's Sustainability Report for 2018, on pages 72-83. The assurance engagement was undertaken at a limited level and involved the following activities:

- Management interviews with key persons responsible for community investment activities to understand the process for collecting, validating and consolidating the data
- A site visit to verify the internal systems and procedures for collecting, validating and consolidating the data
- Checks on the accuracy and consistency of the data presented in this report on pages 72-83

As managers of LBG, Corporate Citizenship has worked with Keppel Corporation to review its understanding of the LBG framework and its application to measuring and reporting its wide range of community programmes. Our aim has been to ensure that the evaluation principles are correctly and consistently applied. We are satisfied, based on the limited scope described above, that this has been achieved. Our work has not extended to an independent audit of the data presented in this report.

Corporate Citizenship

Singapore
6 May 2019

Key Personnel

Group Sustainability Steering Committee

Loh Chin Hua

Chairperson
Chief Executive Officer,
Keppel Corporation

Chan Hon Chew

Chief Financial Officer,
Keppel Corporation

Ong Tiong Guan

Chief Executive Officer,
Keppel Infrastructure

Christina Tan

Chief Executive Officer,
Keppel Capital

Chris Ong

Chief Executive Officer,
Keppel Offshore & Marine

Tan Swee Yiew

Chief Executive Officer,
Keppel Land

Thomas Pang

Chief Executive Officer,
Keppel Telecommunications & Transportation

Group Sustainability Working Committee

Sebastien Lamy

Co-Chairperson
Director,
Group Strategy & Development,
Keppel Corporation and
Managing Director,
Keppel Technology & Innovation

Ho Tong Yen

Co-Chairperson
Director,
Group Corporate Communications,
Keppel Corporation

Cindy Lim

Director,
Group Corporate Development,
Keppel Corporation and
Managing Director,
Keppel Urban Solutions

Yeo Meng Hin

Director,
Group Human Resources,
Keppel Corporation

Caroline Chang

General Manager,
Group Legal,
Keppel Corporation

Tok Soo Hwa

General Manager,
Group Control & Accounts,
Keppel Corporation

Sepalika Kulasekera

General Manager,
Group Internal Audit,
Keppel Corporation

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