



SUSTAINABILITY REPORT 2011

To be the provider of choice for solutions to the offshore & marine industries, sustainable environment and urban living.

We will develop and execute our business profitably, with Safety and Innovation, guided by our three key business thrusts of Sustaining Growth, Émpowering Lives and Nurturing Communities.



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### **About this Report**

This Report focuses on the sustainability strategies and practices of the Keppel Group, highlighting the economic, environmental, and social aspects of the Group's activities and initiatives. It provides an overview of our approach, priorities and targets, as well as a performance review in several key areas.

We believe that our operations should help generate both economic and social capital for the communities where we operate.

Through this Report, we demonstrate our commitment to keep our stakeholders, including our employees, customers, investors, business partners and community members abreast of our social and environment developments.

Limited copies of this Report have been printed to minimise the impact on the environment. The PDF copies are available online at www.kepcorp.com.

#### REPORTING PERIOD AND SCOPE

This Report covers the Keppel Group's global operations and initiatives, including its subsidiaries, unless otherwise indicated. The period covered by this Report is the same as the financial year of Keppel Corporation (January to December 2011). Wherever possible, we have shared three-year historical information to provide a meaningful basis for comparison. The Sustainability Report is published yearly.

### **GLOBAL REPORTING INITIATIVE**

This Report has been developed in accordance with the Global Reporting Initiative (GRI) G3.1 guidelines. Through the GRI Application Level Check Statement it has been confirmed that this Report fulfills the requirements of Application Level B. For more information on the guidelines, please visit GRI's website. Standard units of measurements were used in this report and conversion factors, where applicable, are found in their respective sections.

The GRI Content Index on pages 72 to 75 outlines where specific GRI reporting elements and indicators are addressed in the Report.

In addition to this Report, stakeholders are advised to read the Keppel Corporation Report to Shareholders 2011 and visit our corporate website www.kepcorp.com for a complete view of the Group's business, strategy, performance and prospects.

#### **FEEDBACK**

We welcome your comments. Please email us at: sustainability@kepcorp.com.

About this Report

### Letter to Our Stakeholders

"Companies with sound sustainability programmes are better positioned to stay the course."



### DEAR STAKEHOLDERS,

In the current volatile and uncertain economic climate, companies with sound sustainability programmes are better positioned to stay the course. Research shows that such companies enjoy higher profit margins as they realise operational efficiencies, increased customer value, strengthened supply chains and reduced business risk as a result of their sustainability efforts.

As a result, sustainable companies draw greater interest from investors. Reflecting this interest, the Singapore Exchange released a guide in 2011 encouraging listed companies to disclose their sustainability performance.

### **ENHANCING TRANSPARENCY**

The Keppel Group has made incremental progress in sustainability reporting. This year, Keppel Telecommunications & Transportation (Keppel T&T) joins Keppel Corporation and Keppel Land in reporting on sustainability performance. Keppel T&T's inaugural sustainability report fulfilled Application Level B in accordance with the Global Reporting Initiative (GRI) G3 Guidelines.

Our property arm, Keppel Land, was included as a component of the Dow Jones Sustainability Index (DJSI) World in 2011 and selected as part of the DJSI Asia Pacific for the second year running. The indices follow a best-in-class approach and include sustainability leaders from each industry on a global and regional level respectively. Keppel Land was also featured in the Sustainability Yearbook, which recognises the top 15% among 2,500 companies worldwide in sustainability leadership, for the second consecutive year.

Committing to greater transparency, we have increased the number of GRI indicators reported from 33 to 44 for this year's report. Additionally, our Environmental Performance reporting now encompasses our overseas units. The Group is investing in systems and training to improve our sustainability reporting capabilities and processes.

### **REVIEWING OUR PERFORMANCE**

The Group delivered another sterling financial performance for 2011. Net profit grew by 14% to a new high of nearly \$1.5 billion, marking the fourth consecutive year net profit has surpassed the \$1 billion mark. For the

fifth year running, Return on Equity has remained above 20%. Earnings per Share also rose to 83.8 cents from 74.3 cents (restated) in FY 2010. Economic Value Added increased to \$1,024 million for the year.

The safety and health of our employees remain a top priority for Keppel, and we continue to assess the safety performance of various business units across more than 30 countries and review our management and procedures in this area. Regrettably, we had 13 fatalities across our global operations last year. Amongst these fatalities, the incident at Keppel Subic Shipyard in the Philippines resulted in the loss of six lives. We offer our deepest condolences to the families of the deceased. We will continue to underscore the importance to uphold safety standards and draw lessons in order to prevent such a recurrence.

The Group's efforts to use resources more efficiently so as to mitigate its environmental impact are starting to bear fruit. Due to our investment in technology and infrastructure and our efforts to raise employee consciousness, the Group operations in Singapore used 11.9% less water

and sent 5.7% less waste for incineration despite the higher volume of work. We are heartened by the results and will continue to identify areas for further improvements.

We respect human rights and firmly uphold fair employment practices. Through our human resource policies and employment practices, we are confident that our operations and significant suppliers are not involved in unethical labour practices such as the employment of child or forced labour.

To build the capacity of our workforce, we invested \$20.5 million in training for employees in 2011, representing a rise of 2.5% from the preceding year. Each employee in Singapore received 62 hours of training on average, while globally, the figure was 30 hours on average. We strive towards progressive localisation in our operations. 60.7% of our global workforce are hired locally, and our investment in training is part of our strategy to develop local talent and contribute to the economic growth of the regions where we operate in.

Our drive for market competitiveness is underpinned by our continual efforts in innovation, technology, as well as research and development. Earlier this year, we restructured and elevated our Keppel Offshore & Marine Technology Centre (KOMtech) to become the Technology Division of Keppel Offshore & Marine. KOMtech will be

responsible for product development and commercialisation, as well as process technology aimed at improving productivity and efficiency. We work closely with our customers to develop a range of solutions that will meet the industry's intensified focus on rig safety and efficiency. For example, our proprietary KFELS SSDT™ 3600E semisubmersible design, which was conferred the ASEAN outstanding engineering achievement award in December 2009 for its eco-friendly features and sustainable operations, has received wide market acceptance, positioning us better to ride the next wave of demand.

A genuine commitment to good corporate governance is essential to the sustainability of our business, and extends beyond compliance with the Code of Corporate Governance 2005 issued by Singapore's Ministry of Finance. Our accountability to stakeholders is what drives us to create, deliver and maximise sustained shareholder value.

As a responsible corporate citizen, Keppel showed its support for worthy causes by investing \$5.85 million in 2011. Our community initiatives and programmes are shared in more detail in this report.

### LOOKING FORWARD

Given the cyclical nature of our businesses and the current climate of economic uncertainty, we are committed to maintain a strong balance sheet that will give us the financial resilience to weather downturns as well as the flexibility to seize opportunities as they arise.

The confidence of stakeholders is critical to our ability to operate and succeed. By committing to our sustainability programmes and remaining focused on identifying and managing long-term risks and opportunities through our robust enterprise risk management framework, we will retain their confidence.

For the coming year, the top three priorities for the Group will be to improve safety, boost energy efficiency, and enhance our talent development and retention programmes so that we are able to position the Group for sustainable growth.

I hope that this report will serve as a platform for our continuing dialogue, and spur the Group to achieve better results.

CHOO CHIAU BENG

CHIEF EXECUTIVE OFFICER

Choo Chiantery

4 June 2012

"The confidence of stakeholders is critical to our ability to operate and succeed. By committing to our sustainability programmes and remaining focused on identifying and managing long-term risks and opportunities through our robust enterprise risk management framework, we will retain their confidence."

# **Corporate Profile**

Keppel Corporation is a Singapore-grown conglomerate with key businesses in Offshore & Marine, Infrastructure and Property. With a global footprint in over 30 countries, Keppel Corporation leverages its international network, resources and talents to grow its key businesses.







### **LEGEND**

Offshore & MarineInfrastructureProperty



### **OFFSHORE & MARINE**



INFRASTRUCTURE



**PROPERTY** 

### **OFFSHORE & MARINE**

Keppel Offshore & Marine (Keppel O&M) is one of the world's largest offshore and marine groups, and a global leader in offshore rig design, construction and repair, ship repair and conversion and specialised shipbuilding.

Its Near Market, Near Customer strategy is underpinned by a global network of 20 yards and offices in the Asia Pacific, Gulf of Mexico, Brazil, the Caspian Sea, the Middle East and the North Sea regions.

Keppel 0&M is a member of the Association of Singapore Marine Industries, and its key executives are members of the Singapore Maritime Foundation.

The company is a partner of the Institute of Marine Engineering, Science and Technology, the leading professional body for the global marine community.

In addition, Keppel O&M's yard in Brazil participates in PROMINP (Programa de Mobilização das Indústrias de Petróleo), which aims to advance the Brazilian oil and gas industry. In the Netherlands, Keppel Velrome participates actively in economic, environmental and social issues raised by the Dutch government. Senior employees at Keppel AmFELS in the US participate in the committees of various associations, including United Brownsville, which looks into the growth of Brownsville, the Brownsville Economic Development Council and the University of Texas Development Board.

### INFRASTRUCTURE

Keppel's Infrastructure Division comprises power and gas, environmental engineering, and logistics and data centre services.

In power and gas, Keppel Energy has a track record of developing,

owning and operating power plants in Singapore, Asia and Latin America. In environmental engineering, Keppel Integrated Engineering (KIE) offers a complete range of water and thermal technologies for municipal and industrial clients. Keppel Telecommunications & Transportation (Keppel T&T) is a leading service provider of logistics and data centres in Southeast Asia and Europe.

KIE is a member of the Singapore Business Federation and one of the founding members of the Singapore Water Association. KIE is also a member of the Waste Management and Recycling Association of Singapore, and a member of the Emergency Resource Committee of Singapore which provides technical advice to buyers of emergency drinking-water equipment.

Keppel T&T is a member of the Singapore Business Federation,

Singapore Logistics Association and Singapore IT Federation.

### **PROPERTY**

Keppel Land contributes to vibrant communities across Asia as a choice developer with a sterling portfolio of award-winning residential developments, integrated townships and investment-grade commercial properties.

Through its twin core businesses of property development and property fund management, Keppel Land is committed to develop properties that harmonise with the urban and natural landscape to create desirable live-work-play environments.

Keppel Land is the founding member of the Singapore Green Business Alliance and a board member of the Singapore Green Building Council.

# Managing Sustainability

# Sustaining Growth

Our commitment to business excellence is underpinned by an unwavering focus on strong corporate governance and prudent financial management.

Resource efficiency is not only our responsibility, but also makes good business sense.

We will continue to distinguish our properties with strong value offerings and hallmark quality for competitive edge.

# 

Financial Highlights (pages 14-17)



Corporate
Governance
(pages 18–23)



Environmental Performance (pages 24–31)



Product Excellence (pages 32–41)

# **Empowering Lives**

People are the cornerstone of our business.

As an employer of choice, we are committed to grow and nurture our talent pool through continuous training and development to help our people reach their full potential.

We instill a culture of safety so that everyone who comes to work goes home safe.



As a global citizen, we believe that as communities thrive, we thrive.

We give back to communities wherever we operate through our multi-faceted approach towards corporate social responsibility.

We cultivate a green mindset among our employees to spur them towards adopting a sustainable lifestyle.



Safety and Health (pages 42-49)



People Matter (pages 50-61)



Community and Society (pages 62-71)

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

The Group Sustainability Steering Committee, chaired by Keppel Corporation's Chief Executive Officer, Mr Choo Chiau Beng, leads the Group's sustainability strategy.

The commitment of senior management is crucial to successfully engage Keppel staff and provide leadership and direction for the Group's performance against the sustainability indicators.

The management structure sees the Steering Committee supported by the Working Committee, which in turn executes and reports the Group's strategy and performance. The Group Sustainability Working Committee is headed by Ms Wang Look Fung, Keppel Corporation's Director of Group Corporate Affairs.

The Working Committee is made up of six functional committees, which oversee, execute and report the Group's strategy across the six aspects that were identified as material to the Group. They are: Environmental Performance, Economic Performance, Product Responsibility and Excellence, Governance and Compliance, Human Rights and Labour Practices, and Safety and Health.

The Steering and Working Committees are supported by the Secretariat sited in Group Corporate Communications, as well as Group Internal Audit, which facilitates the reporting and advises on performance issues.

#### **OUR REPORTING APPROACH**

In 2011, we engaged widely on the format and content of our sustainability reporting, with the aim of communicating more effectively with our stakeholders. This year, we have included a concise Summary Review of our sustainability focus areas in Keppel Corporation's Report to Shareholders 2011.

We conducted a materiality analysis, and a materiality matrix was used to prioritise the social, economic, and environmental challenges, opportunities, and issues of particular concern to our stakeholders. The analysis was based on AccountAbility's AA1000 and Global Reporting Initiative G3.1 guidelines, whereby materiality is assessed by determining the relevance of each issue to Keppel and its stakeholders. An issue is considered to be material if it influences the decisions, actions, and performance of an organisation or its stakeholders.

Issues were systematically assigned numerical scales whereby higher priority issues were assigned higher scores (1 - Low. 5 - Critical). Following, the issues were plotted graphically on an internal and external stakeholder axis to show where they lay in relation.

An independent sustainability consultancy guided us through the materiality process, and provided external stakeholder perceptions based on their expertise.

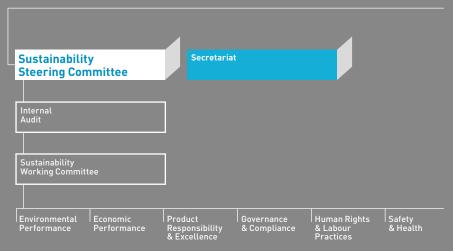
Thresholds on the axis were marked to divide the matrix into bands of materiality.

This report addresses issues in the most significant bands. The most material sustainability issues facing Keppel Corporation are safety and risk management, product quality, economic performance, corporate governance and labour practices.

This process is reviewed regularly, and we will be working towards external assurance for future reports.

The GRI Content Index on pages 72 to 75 provides an outline of the report content.

### KEPPEL GROUP'S SUSTAINABILITY MANAGEMENT STRUCTURE



Managing Sustainability

## **Stakeholder Engagement**

We recognise that business and sustainability goals are best unified through an active engagement process with our stakeholders.

By identifying issues that are significant to our stakeholders through open dialogue and other engagement efforts, we aim to shape our sustainability approach and better align our business strategy and activities with the wider priorities of society.

Our main stakeholder groups have been identified as (not in order of priority): customers, employees, governments, shareholders and the investment community, members of local communities where we operate, and suppliers. The stakeholder groups were identified through a stakeholder mapping exercise, and are deemed to have a high level of interest in sustainability issues, as well as the potential influence to affect the Group's businesses.

### COMMUNICATION AND ENGAGEMENT

Our engagement takes many forms, including internal and external one-on-one and group meetings and conference calls, senior executive speeches, "live" webcasts of our quarterly results and presentations, e-mail communications, publications such as Keppel Corporation's Report to Shareholders and Sustainability Report, and content on our website.

Report to Shareholders www.kepcorp.com

**Send us your feedback** sustainability@kepcorp.com

Market-sensitive news is promptly posted on our website and the Singapore Exchange website at the end or beginning of each market day.

Keppel actively engages its customers in the development of its products to achieve a high satisfaction level.



### Keppel's Stakeholders

# Our diverse groups of stakeholders have differing needs and expectations, and we have outlined key topics and concerns as follows:



### Customers

Goal: Provide value-added and reliable solutions tailored for our customers. **Action:** Keppel's business units have in place channels to assess and maintain customer satisfaction. For instance, Keppel Land's Customer Focus Unit (CFU) and Property Management division are dedicated to foster good long-term relationships with customers. The CFU plays a key role in the delivery of premium quality residences that homebuyers have come to associate with Keppel Land, Feedback from homeowners and tenants is taken into consideration in the review and improvement of upcoming projects and existing developments.



### **Employees**

**Goal:** Enhance employees' affiliation with the company and assimilation into organisational culture.

Action: An Organisational Climate Survey is used to identify employees' concerns and areas for improvement every year. 2011 marks the third year that the survey was conducted Groupwide. 4,234 employees participated in the survey in 2011, reflecting a high 91.7% response rate. From the results of this survey, Keppel reviews and refines policies and programmes to reinforce its position as an employer of choice.



### Governments

Goal: Collaborate with public policy leaders on issues of mutual interest. Action: As a key partner to Brazil's oil and gas industry for more than 30 years, Keppel works closely with the Brazilian government and the national oil company Petrobras to strengthen our competencies in Brazil. Together, we have achieved many firsts for Brazil's offshore and marine industry, and successfully delivered numerous projects that contribute substantially to the nation's oil production capacity.



### Shareholders

**Goal:** Foster deeper relationships with long-term shareholders and address the concerns of the investing community.

Action: In 2011, Keppel held over 160 one-on-one investor meetings and conference calls with Singapore and overseas institutional investors. Senior management went on non-deal roadshows to Japan. Hong Kong and the US, and held over 70 meetings. Such meetings provide useful platforms for management to engage with investors and analysts, and share our business thrusts and developments. As Keppel's key attraction to investors is our rigbuilding operations and facilities, we conducted over 10 yard tours and management dialogues for institutional investors.



### Local Communities

Goal: Nurture communities where we operate to build trust and goodwill.

Action: Since its inception in 2000, Keppel Volunteers has been spearheading activities that make meaningful impact on local communities. Efforts in 2011 include monthly home maintenance programmes for elderly residents cared for by Senior Activity Centres in Singapore. In Philippines, Keppel Batangas Shipyard led Keppel Group's efforts in the development of the Keppel-Gawad Kalinga (GK) Eco Village to house 60 needy families.



### Suppliers

Goal: Work alongside suppliers to influence and improve their sustainability performance.

Action: Contractors and suppliers are represented in our unions and councils across the Group. Through platforms such as contractor Health, Safety and Environment (HSE) committee meetings, suppliers made aware of and are involved in addressing our operational concerns. Further, vendors are assessed through performance audits and site inspections to ensure that projects carried out are in line with our HSE policy.

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### Awards and Accolades



### SINGAPORE CORPORATE AWARDS KEPPEL LAND

 Silver, Best Managed Board (Market cap of \$1 billion and above)

### KEPPEL TELECOMMUNICATIONS & TRANSPORTATION

 Gold, Best Managed Board (Market cap of \$300 million to less than \$1 billion)

### GOVERNANCE AND TRANSPARENCY INDEX (2012)

 Keppel Corporation, Keppel Land and Keppel Telecommunications & Transportation were ranked 4th, 6th and 13th among 674 companies assessed.

# SECURITIES INVESTORS ASSOCIATION OF SINGAPORE 12TH INVESTORS' CHOICE AWARDS

### **KEPPEL CORPORATION**

 Hall-of-Fame, Most Transparent Company

### KEPPEL LAND

- Runner-up, Most Transparent Company (Property)
- Keppel Corporation and Keppel Land won the Best Investor Relations Award by Sector (Industrials) and Grand Prix for Best Overall Investor Relations Award (small or mid-cap company) respectively at the IR Magazine Southeast Asia Awards 2011.
- Keppel Land received two Merit
   Awards (in Accounting and Financial Reporting, and Corporate Governance categories) and the Mature Markets
   Highly Commended Award at the Best Practices Awards 2011 by the Asia Pacific Real Estate Association.
- Keppel Corporation achieved
   "Best Investor Relations" and was
   named "Most Committed to a
   Strong Dividend Policy" in
   FinanceAsia's annual Best Managed
   Companies Poll. Keppel Corporation
   was also voted to be among the best
   in the "Best Managed Company"
   and "Best Corporate Social
   Responsibility" categories.

- Keppel Corporation was ranked first for "Best for Disclosure and Transparency in Singapore", second for "Best Overall for Corporate Governance in Singapore" and joint second for "Best for Shareholders' Rights and Equitable Treatment in Singapore" in the Asiamoney Corporate Governance Poll 2011.
- Mr Choo Chiau Beng, CEO
   of Keppel Corporation, was
   named the Best CEO in the
   Conglomerate category by
   sell-side in an investor relations
   perception survey conducted by
   Institutional Investor magazine
   headquartered in USA.
- Keppel Land was conferred the "Best in Class (Financials)" award by Storebrand, a leading Norwegian financial institution, for its exceptional financial, environmental and social performance.
- Keppel Land was the sole winner at the Singapore Awards for Sustainability Reporting 2011 by the Association of Chartered Certified Accountants.
- Keppel Land was selected as an index component of the Dow Jones Sustainability Indices (DJSI World and DJSI Asia Pacific).
- Keppel Land is included in the Sustainability Yearbook 2012, which features the top 15% of companies out of 2,500 worldwide in sustainability leadership.



- Keppel Land was named the Best Performer in Asia in the Global Real Estate Sustainability Benchmark (GRESB), and earned a "Green Star" based on GRESB's model of environment performance.
- Bugis Junction Towers, Equity Plaza, GE Tower, Keppel Towers, Prudential Tower, Marina at Keppel Bay, Jakarta Garden City in Indonesia, Central Park City (Plot C1) in Wuxi, China, and Keppel Datahub were conferred the Building and Construction Authority (BCA) Green Mark Gold Awards.
- Keppel Logistics was named the Best Asia Pacific Green Home-Grown Logistics Service Provider by Frost & Sullivan.
- Alpha Investment Partners' 158 Cecil Street won the top award at SIA-NParks Skyrise Greenery Awards 2011 in Singapore.
- Marina at Keppel Bay was named the Green Maritime Company of the Year at the 7th Asia Boating Awards in Hong Kong and became the first in Asia to receive the Clean Marina Level 3 accreditation by the Marina Industry Association of Australia.
- Keppel DHCS' district cooling system plant expansion at Changi Business Park was conferred the Solar Pioneer Award by the Energy Innovation Programme Office.

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# Product Excellence

- Keppel Shipyard clinched the Shipyard of the Year Award at the Lloyd's List Awards, Asia 2011.
- Keppel Land was named
  Best Developer in Singapore
  (Overall) and Best Office
  Developer in Singapore at
  Euromoney's Real Estate
  Awards 2011.
- Keppel Shipyard garnered
   The Repair Yard Award at
   Seatrade Asia Awards 2011.

Keppel Land was also recognised for excellence in the following projects:

- Marina Bay Residences and Marina Bay Financial Centre (MBFC) Phase One received the FIABCI Singapore Property Awards 2011 in the residential (high-rise) and office categories respectively.
- MBFC Phase One clinched the Gold award for the mixeduse category, as well as the Participants' Choice Award at the MIPIM Asia Awards 2011.
- Ocean Financial Centre
  (OFC) was conferred the
  Green Development Award
  (Southeast Asia) at the
  inaugural South East Asia
  Property Awards 2011, and
  the Gold award in the Product
  Excellence category at the
  Global CSR Awards 2011.
- Sedona Hotel Yangon was named Myanmar's Leading Hotel at the World Travel Awards 2011, and Hotel Sedona Manado was named Indonesia's Leading Business Hotel at the World Travel Awards 2011.
- The Estella in Ho Chi Minh City clinched the Best Condominium Development (Vietnam) award at the inaugural South East Asia Property Awards 2011.



### Safety and Health

- The Keppel Group clinched a record of 26 awards at the Workplace Safety and Health (WSH) Awards 2011.
- Keppel FELS clinched the Safety Award at the Lloyd's List Awards, Asia 2011.
- Keppel Shipyard garnered the Safety Award at Seatrade Asia Awards 2011.
- Keppel FELS and Keppel Singmarine clinched the Silver and Bronze Awards respectively in the 14th Convention for Workplace Safety and Health (WSH) Innovations in Marine Industry organised by the Association of Singapore Marine Industries (ASMI).



### People Development

- Keppel Corporation was named Organisation with Innovative HR Practices at the Asia Pacific HRM Awards Congress.
- Keppel Land garnered awards in Leading HR
  Practices in Corporate Social Responsibility, Leading HR Practices in Regional/ International HR Award (Special Mention), as well as Leading HR Practices in Talent Management, Retention and Succession Planning Award (Special Mention) at the Singapore HR Awards.
- Keppel 0&M was conferred the Excellence in Training Development Award at the Singapore International Maritime Awards.



- Keppel FELS was conferred the 5-Year Outstanding SHARE Platinum Award at the Singapore Community Chest Awards 2011. Keppel FELS and Keppel Singmarine received the SHARE Platinum Award, while Keppel Logistics and Keppel Shipyard garnered SHARE Gold Awards.
- Keppel Corporation, Keppel Shipyard, Keppel Singmarine, Keppel Land, Keppel Logistics and Alpine Engineering Services received the Meritorious Defence Partner Award from the Ministry of Defence of Singapore.
- Keppel Offshore & Marine was awarded the Distinguished Partner in Progress Award for significant economic and community contributions.
- Sedona Suites in Ho Chi Minh City and Hanoi received the Golden Dragon Awards by the Vietnam Economic Times.
- Keppel FELS was awarded the Friends of Institution of Engineers Singapore Award 2011.
- Quang Ba Royal Park, a Keppel-led JV, was conferred the 2nd Class Labour Award by the former President of Vietnam.
- Keppel Corporation was awarded as a Distinguished Patron of the Arts by the National Arts Council, and a Friend of Heritage by the National Heritage Board, for outstanding contributions towards the arts, culture and heritage scene in Singapore.

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### Awards and Accolades



- The Keppel Group was recognised at the 2011 Singapore Corporate Awards for excellence in corporate governance and transparency.
- 2. Keppel Land's Ocean Financial Centre was conferred the Green Development Award (Southeast Asia) at the inaugural South East Asia Property Awards 2011, and the Gold award in the Product Excellence category at the Global CSR Awards 2011.



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# **Performance Data Table**

	2009	2010	2011	Interpretation	Page No
ENVIRONMENT (SINGAPORE OPERATIONS)				·	J. Company
Direct Energy (GJ)	1,002,906	870,002	963,708	•	25
Indirect Energy (GJ)	1,608,937	1,427,822	1,480,791	•	25
Potable Water Used (m³)	2,083,658	1,566,587	1,380,930	•	27
NEWater Used (m³)	1,972,627	2,905,055	3,175,749	•	27
Recycled Waste (tonnes)	87,028	91,598	144,896	•	27
Incinerated Waste (tonnes)	126,647	116,712	110,060	•	27
Direct Carbon Emissions (t-CO <sub>2</sub> )	95,619	123,546	132,968	•	28
Indirect Carbon Emissions (t-CO <sub>2</sub> )	199,874	198,943	195,835	•	28
PEOPLE MATTER					
Investment in Training (S\$ million)	23.7	18.3	20.5	•	56
Training Hours per Employee (Singapore)	-	60	62	•	56
Training Hours per Employee (Global)	-	31	30	•	56
Overall Organisational Climate Survey Score (Out of 6)	4.47	4.62	4.66	•	58
Group Employee Turnover rate (%)	11.5	11.5	10.9	•	55
Local Hires (%)	_	65.3	60.7	•	54
Senior Management Hired Locally (%)	-	60.5	59.4	•	55
SAFETY					
Group Accident Frequency Rate (per million man-hours)	0.43	0.33	0.25	•	48
Group Accident Severity Rate (man-days lost per million man-hours)	93	133	367	•	48
Cumulative Group Accident Frequency Rate (Singapore) (per million man-hours)	0.28	0.15	0.24	•	48
Cumulative Group Accident Frequency Rate (Overseas) (per million man-hours)	0.72	0.65	0.28	•	48
Cumulative Group Severity Rate (Singapore) (man-days lost per million man-hours)	85	129	180	•	48
Cumulative Group Severity Rate (Overseas) (man-days lost per million man-hours)	106	139	682	•	48
COMMUNITY					
Philanthropic Investments (S\$ million)	_	6.30	5.85	•	63

### Legend

Generally desirableNeutralUndesirable

# **Financial Highlights**

Keppel's drive for excellence has delivered another year of good growth in 2011. With our strong portfolio of businesses, we remain committed to creating long-term sustainable value for our stakeholders.

### Major Developments in 2011



### **OFFSHORE & MARINE**

- Secured a record \$10 billion worth of new contracts.
- Delivered 41 major projects.
- Secured first deepwater drilling rig for Brazil yard.
- Entered adjacencies in niche markets.
- Achieved good operating profit margins with productivity improvements.



### **INFRASTRUCTURE**

- Keppel Energy's expansion of Keppel Merlimau Cogen Plant is on track.
- Keppel Integrated Engineering (KIE) completed a waste management facility in Qatar and started the operations and maintenance phase.
- Keppel Telecommunications & Transportation (Keppel T&T) formed a JV with Sinotrans to develop and operate the Yangtze River port.
- Keppel T&T acquired, directly and indirectly, stakes in two data centres in Australia.



#### **PROPERTY**

- Sold more than 2,500 homes across Asia, mainly in China.
- Added over 3,500 homes with acquisitions in China.
- Keppel Land divested 87.5% stake in Ocean Financial Centre to K-REIT Asia.
- K-REIT Asia grew Assets Under Management to \$6 billion.
- Alpha Investment Partners raised US\$485 million in first closing of Alpha Asia Macro Trends Fund II.

### Focus for 2012/2013

### **OFFSHORE & MARINE**

- Deliver on excellent execution and enhance productivity.
- Continue research and development (R&D) efforts to sharpen position as market leader in selected segments.
- Explore opportunities in new markets and adjacent businesses.
- Sustain prudent cost management.
- Continue emphasis on Health, Safety and the Environment.

### **INFRASTRUCTURE**

- Keppel Energy to grow share of Singapore's power market and further enhance integrated platform in gas and utilities businesses.
- KIE to complete construction of remaining projects in Qatar and the UK.
- KIE to enhance operations and maintenance capabilities.
- Keppel T&T to enhance services through new technologies while growing business in high-growth regions in China.

### **PROPERTY**

- Selectively acquire sites in Singapore and overseas.
- Monitor markets to launch new projects and project phases.
- Expand commercial portfolio overseas.



The Group performed well in 2011 despite volatility in the global markets.

Group revenue of \$10.1 billion was 10% higher than 2010 due to strong performance by our businesses. Net profit before exceptional items of the Group increased by 14% to reach a record high of nearly \$1.5 billion. This is the fourth consecutive year that net profit has surpassed the \$1 billion mark. Return on Equity (ROE) exceeded 20% for the fifth consecutive year.

Economic Value Added (EVA) excluding exceptional items rose by \$60 million to \$1,024 million from FY10's \$964 million. Increased EVA was due to higher operating profit, partially offset by higher capital charge.

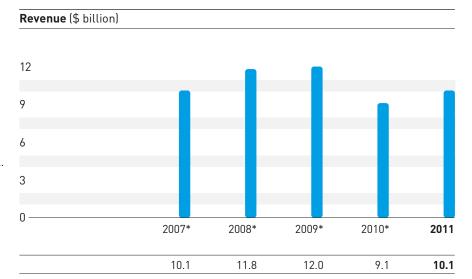
Growth of earnings per share (EPS) kept pace with growth of net profit. EPS of 83.8 cents was 9.5 cents above 2010 and 15.9 cents above 2009.

Group shareholders' funds increased from \$6.42 billion at 31 December 2010 to \$7.39 billion at 31 December 2011. The increase was mainly due to retained profits for the year, partially offset by fair value loss on cash flow hedges and available-for-sale assets, and payment of the final dividend of 23.7 cents per share (adjusted for the bonus issue) in respect of financial year 2010, and interim dividend of 17.0 cents per share for financial year 2011.

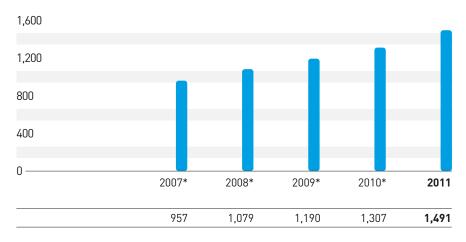
With the strong performance, shareholders will be rewarded with total distribution of 43 cents per share for 2011. This comprised a proposed final dividend of 26 cents per share and the interim dividend of 17 cents per share paid in August 2011. The total payout for 2011 is expected to exceed \$766 million.

### **OFFSHORE & MARINE**

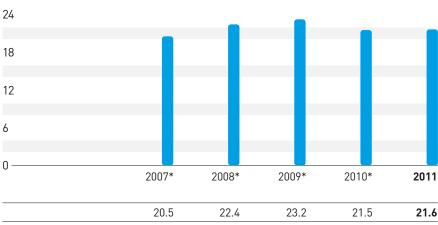
In 2011, the Offshore & Marine division secured a record \$10 billion of new orders for the year. The net orderbook at the end of the year stood at \$9.4 billion, with deliveries extending into 2015. Revenue of \$5,706 million was \$129 million or 2% higher. Operating profit margin for 2011 reached a high of 23.1%. Pre-tax



Net Profit (\$ million)



ROE (%)



<sup>\*</sup> Comparatives are restated due to retrospective application of INT FRS 115.

### Sustaining Growth Financial Highlights

earnings increased by 14% to \$1,417 million, owing to cost savings and higher margins on jobs. Net profit of \$1,064 million was \$77 million or 8% higher than in 2010. The division remains the largest contributor to the Group's net profit with 71% share.

#### **INFRASTRUCTURE**

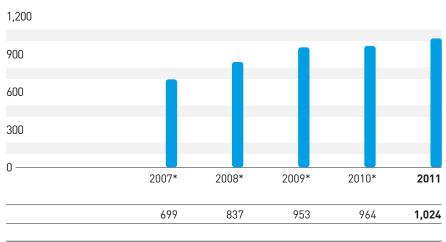
Infrastructure division's revenue increased by \$353 million to \$2,863 million, with higher revenue generated from the power and gas business in Singapore partly offset by lower revenue from KIE. Profit before tax increased by 29% to \$120 million as a result of better performance from Keppel Energy, partly offset by losses from KIE. With a net profit of \$82 million, the Division accounts for 6% of the Group's earnings.

#### **PROPERTY**

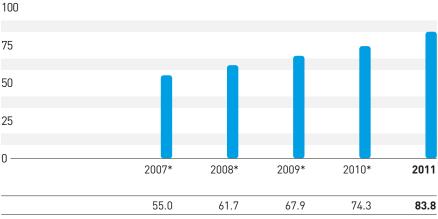
Revenue from the Property division of \$1,467 million was \$425 million more than that in 2010. Overseas operations reported higher revenue in 2011, due largely to the completion of several projects/project phases in China, India and Vietnam. Higher revenue was also reported by Singapore trading projects, such as Reflections at Keppel Bay, The Lakefront Residences, The Luxurie and Madison Residences due to higher sales and percentage of physical completion achieved. Pre-tax profit of \$582 million was an increase of \$94 million over 2010. This was mainly attributable to higher contribution from several residential projects in Singapore, China and Vietnam. With net profit at \$300 million, the Division contributed 20% to the Group's overall earnings.



EVA (\$ million)



EPS (cents)

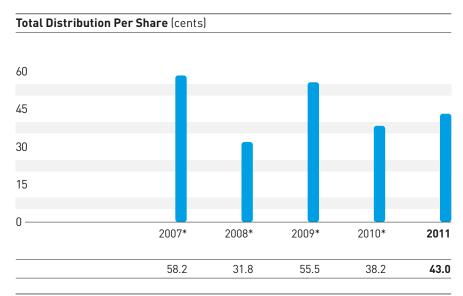


Comparatives are restated due to retrospective application of INT FRS 115. Comparatives for EPS have also been adjusted for the bonus issue of shares in 2011.

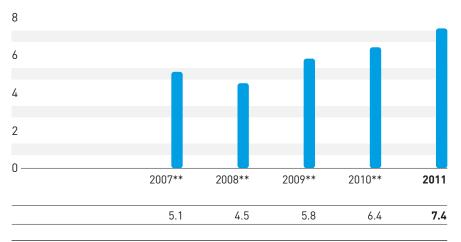
With a record \$10 billion worth of new orders secured by the Offshore & Marine Division in 2011, our focus is on executing the orders well and extracting maximum value from each project.

Keppel Corporation Limited Sustainability Report 2011

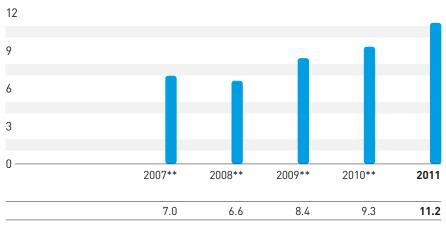




### Shareholders' Funds (\$ billion)



### Capital Employed (\$ billion)



<sup>\*</sup> Comparatives for total distribution per share have been adjusted for the bonus issue of shares in 2011.

### GOVERNMENT ASSISTANCE AND TAXES PAID

In 2011, the Group received a total of \$2.6 million in financial assistance from governments. This largely consisted of R&D grants and training grants from the Singapore government. The Group also paid a total of \$343.4 million in taxes to the various countries and tax jurisdictions in which it operates.

### **EMPLOYEE COMPENSATION**

In 2011, staff costs amounted to \$1,433 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 employees in 2011 numbered 33,747. This figure excludes employees in associated companies.

For more details on the Group's financial performance, please refer to the Operating & Financial Review section of Keppel Corporation's Report to Shareholders 2011.

<sup>\*\*</sup> Comparatives are restated due to retrospective application of INT FRS 115.

### **Corporate Governance**

The long-term sustainability of Keppel Group's businesses is underpinned by our core value of integrity and driven at the highest level through strong corporate governance.

### **Highlights**

## 8 out of 12

Board directors were independent and non-executive directors at the end of FY2011.

# 4 out of 5

Board committees comprise entirely of independent or non-executive directors with independent chairmen.

## **8** years

Since Whistle-Blower Protection Policy took effect.

#### **Focus Areas**



Committed to high standards of corporate governance with strong and independent board.



Uphold high standards of safety, health and environment.



Strong commitment to good business ethics.

#### **Performance Overview**

### **WHAT WE SAID IN 2011**

- Remain committed to good corporate governance with strong and independent board.
- Continue to uphold high standards of safety, health and environment, with focus on technology innovation.

#### **WHAT WE DID IN 2011**

- Updated Employee Code of Conduct to emphasise the Company's policy against corruption and the upholding of high standards of business ethics.
- Review of Whistle-Blower Policy by Board Audit Committee with more information on policy in Report to Shareholders 2011.

### WHAT WE PLAN TO DO

- Continue to maintain strong Board independence and performance.
- Continue to monitor, review and implement corporate governance best practices.





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 business and performance.

To us, a critical aspect of good governance is to have an effective, strong and independent Board as the highest governing body responsible for setting the strategic direction and overseeing the business and affairs of the Company as well as establishing with management, the strategies and financial objectives to be implemented, and monitoring the performance of management. In addition, there must be a strong commitment to ensure that good business ethics are practised across the Group and that there is clear, consistent and regular communication with the Company's investors.

### GOVERNANCE BOARD COMPOSITION

### BOARD COMPOSITION AND EVALUATION

At Keppel, our Board directors fully understand 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 shareholder interests.

For the financial year ended 31 December 2011, there were 12 directors on our Board, comprising eight independent directors, one non-executive and non-independent director and three executive directors. To assist the Board in its oversight function, board committees, namely the Audit Committee, Board Risk Committee, Nominating Committee, Remuneration Committee and Board Safety Committee, were formed to focus on key matters such as internal audit, risk management, board composition and performance, succession planning and talent management, remuneration and safety. Each committee has clearly defined terms of reference. For more details on the terms of reference and composition of the various committees, please refer to pages 106 and 107 of Keppel Corporation's Report to Shareholders 2011.

There is a strong and independent element on our Board, with an independent chairman and the majority of our Board comprising independent directors. Except for the Board Safety Keppel's Board Directors, led by Chairman, Dr Lee Boon Yang (third from right), act in the best interest of the Company and safeguard the interests of the Company's shareholders.

### Sustaining Growth Corporate Governance



The Board of Directors are kept well-informed of Keppel's businesses through regular updates and site visits such as the Board Strategy Meeting held in Chengdu, China last year.

Committee, all board committees comprise entirely independent or non-executive directors with independent chairmen. The Nominating Committee determines on an annual basis whether or not a director is independent, bearing in mind the Singapore Code of Corporate Governance 2005's definition of an "independent director" and guidance as to the relationships the existence of which would deem a director not to be independent.

The Nominating Committee takes into account, among other things, whether a director has business relationships with the Company or any of its related companies, and if so, whether such relationships could interfere, or be reasonably perceived to interfere, with the exercise of the director's independent judgement with a view to the best interests of the Company. Further, the Nominating Committee also deems a director who is directly associated with a substantial shareholder as non-independent, although such a relationship has not been expressly identified in the Code of Corporate Governance 2005 as one that would deem a director not to be independent.

Our non-executive directors are generally not involved in the day-to-day management of the Company. However, 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. For this to happen, the Board, in particular the nonexecutive directors, must be kept wellinformed of the Company's businesses and affairs and be knowledgeable about the industries in which the businesses operate. The Company has therefore adopted initiatives to put in place processes to ensure that the nonexecutive 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.

Board evaluation is another important element in ensuring board effectiveness. Our Board has put in place formal evaluation processes and performance criteria, and has appointed an independent third-party coordinator to assist in the assessment of the Board's performance as a whole, the



performance of the individual directors as well as that of the Chairman. Such assessments help to improve the overall effectiveness of the Board by providing opportunities for the directors to give constructive feedback. They also help the directors focus on their key responsibilities.

The competencies and skill sets of the directors and the composition of the Board also play a role in the overall effectiveness of the Board. The Nominating Committee ensures that the Board and Board Committees comprise directors who as a group provide the core competencies required to exercise effective oversight and direction. The board composition is diversified with directors from different relevant industry experience. For the financial year ended 31 December 2011, there were one female director who served as the Chairman of the Board Risk Committee and a member of the Audit and Remuneration Committees, and one foreign director from Norway with deep offshore and marine knowledge and experience. Our directors are also provided with continuing education in areas related to their duties and responsibilities and the Group's business and industry in which the businesses operate. All newlyappointed directors will also undergo a comprehensive orientation programme, which includes management presentations on the Group's businesses and strategic plans and objectives, and site visits.

Please refer to pages 92 to 110 of the Company's Report to Shareholders 2011 for details on the corporate governance framework and practices.

### REMUNERATION FRAMEWORK AND POLICY

The Company advocates a performance-based remuneration system that is highly flexible and responsive to the market, Company's, business unit's and individual employee's performance. The Remuneration Committee 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. Besides recommending to the Board for endorsement a framework of remuneration and the specific remuneration packages for each director and the Chief Executive Officer, the Remuneration Committee also reviews the remuneration of senior management and administers the Company's share plans which are in the form of two share plans approved by shareholders, the KCL Restricted Share Plan and the KCL Performance Share Plan (collectively, the "KCL Share Plans"). To enhance objectivity, the Remuneration Committee for the financial year ended 31 December 2011 comprised six non-executive directors, five of whom (including the chairman) are independent and the sixth is a nominee-director of Keppel Corporation's single largest shareholder, Temasek Holdings.

For executive directors and key executives, the current remuneration mix comprises three key components: annual fixed cash, annual performance incentive and the KCL Share Plans. The annual fixed cash component comprises the annual basic salary and any other fixed allowances which the Company benchmarks with the relevant industry market median. The annual performance incentive is tied to the Company's, business unit's and individual employee's performance, inclusive of a portion which is tied to the Company's performance in terms of its Economic Value Added (EVA).

For non-executive directors, directors' fees are paid in cash and a fixed number of shares in the Company, subject to shareholders' approval at each annual general meeting.

### **BUSINESS ETHICS**

### INTERNAL CONTROL AND RISK MANAGEMENT

The Keppel Group considers it important that all employees understand the rules of conduct for which they are accountable, in accordance with the laws and regulations in all the countries where the Group operates and our own group policies. Keppel employees

must always choose the course of highest integrity as guided by the Keppel Core Values.

The Board Risk Committee 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 Company's assets. The Committee reports to the Board on material findings and recommendations in respect of significant risk matters. The Group's risk-related policies and limits are subject to regular review to ensure that they address business risks, including corruption and fraud risks, adequately and effectively. Chief Executive Officers of the principal business units are also required to confirm each year to the Company's Board that, to the best of their knowledge and belief, there was no violation of any anti-bribery or anticorruption laws of the countries where the respective business unit carries out its business.

The Board Audit Committee regularly examines the effectiveness of the Group's internal control system to, amongst others, mitigate risk of corruption. By way of enforcement, the Group's internal auditors assist the Audit Committee to ensure that the Company maintains a sound system of internal controls through the regular monitoring of key controls and procedures, and ensuring their effectiveness, undertaking investigations as directed by the Audit Committee, and conducting regular in-depth audits of highrisk areas. Together with external auditors, the Group's internal auditors also conduct annual review of the effectiveness of the Company's material internal controls, including financial, operational and compliance controls, and risk management.

### **AWARENESS AND TRAINING**

The Group has communicated a comprehensive set of policies to all employees as part of a Group-wide commitment to maintain a robust system of risk management and

### Sustaining Growth Corporate Governance

internal controls. These policies are readily accessible to all employees via the Company's shared folders or intranet. As and when there are updates to the policies, the updated policies are broadcasted to all employees via e-mail.

All new employees are provided a copy of the Employee Code of Conduct and are required to acknowledge their understanding of its content. To further mitigate risks of corruption and fraud, business units have also set in place their respective operational policies and standard operating procedures, including approval limits for financial commitment and procurement policies.

The Company also has in place an Insider Trading Policy, Disclosure of Dealings in Securities Policy and Competition Law Compliance Manual to further strengthen corporate governance in the respective areas. All new employees are required to acknowledge that they have read and understood the Insider Trading policy, and will comply with the prohibitions and restrictions set out in the policy.

With the global spotlight thrown on strengthening anti-bribery practices in the wake of the UK Bribery Act 2010, the Employee Code of Conduct was revised in 2011 to, amongst other matters, set the tone in relation to the Group's anti-bribery stance and position with regard to, in particular, gifts and hospitality, facilitation payments, and dealings with associates, and generally sets out the principles of business conduct expected of all employees.

In addition, a seminar was conducted for key management and employees of various business units, in particular those involved in purchasing, contracting, distribution and marketing, to raise awareness of anti-bribery practices and requirements, highlight situations in which an employee may face potential requests for bribes and how to avoid such situations if and when confronted with them, provide

guidance on anti-bribery procedures, and provide an opportunity for the business units to seek clarification on any queries they may have on the subject. To reach out to employees who were not able to attend the seminar, particularly those located overseas, an e-learning toolkit and other relevant materials on anti-bribery were also circulated Group-wide.

The Group also has an Interested Person Transaction policy, which requires all business units to report interested person transactions. On a quarterly basis, management reports to the Audit Committee, which comprises independent directors, the interested person transactions ("IPTs") in accordance with the Company's shareholders mandate for IPTs. The IPTs are reviewed by the internal auditors. All findings are reported during Audit Committee meetings. In addition, being a listed company on

Singapore Exchange Securities Trading Limited, a general shareholders' mandate for recurring interested person transactions of a revenue or trading nature or those necessary for the Company's operations will be sought at every annual general meeting. Material interested person transactions will have to be specifically approved by shareholders in a general meeting. Both the mandate and specific shareholders' approval sought will have to undergo a strict review and approval procedures from Singapore Exchange Securities Trading Limited.

### REPORTING AND INVESTIGATION

Keppel's Whistle-blower Protection Policy (the "Policy") took effect on 1 September 2004 to encourage reporting in good faith of suspected Reportable Conduct (as defined below) by establishing clearly defined 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. Reportable Conduct refers to any act or omission by an employee of the Group or contract worker appointed by a company within the Group, which occurred in the course of his or her work (whether or not the act is within the scope of his or her employment) which in the view of a whistle-blower acting in good faith, is:

- a. Dishonest, including but not limited to theft or misuse of resources within the Group;
- b. Fraudulent;
- c. Corrupt;
- d. Illegal;
- e. Other serious improper conduct;
- f. An unsafe work practice; or
- g. Any other conduct, which may cause financial or non-financial loss to the Group or damage to the Group's reputation.

The Audit Committee had reviewed the policy and was satisfied that arrangements are in place for the independent investigation of such matters and for appropriate follow-up action. To facilitate the management of incidences of alleged fraud or other misconduct, the Audit Committee is guided by a set of guidelines to ensure proper conduct of investigations and appropriate closure actions following completion of the investigations, including administrative, disciplinary, civil and/or criminal actions, and remediation of control weaknesses that perpetrated the fraud or misconduct so as to prevent a recurrence.

For more details on the reporting and investigation mechanism under the Whistle-blower Policy, please refer to pages 108 and 109 of Keppel Corporation's Report to Shareholders 2011.

- Mrs Oon Kum Loon (centre) is Chairman of the Board Risk Committee and a member of the Audit and Remuneration Committee.
- The Audit Committee, currently chaired by Mr Danny Teoh (right), regularly reviews and examines the effectiveness of the Group's internal control system as part of risk management.





### **Environmental Performance**

Keppel is sharpening its focus to achieve better resource efficiency through continual conservation programmes, optimisation of equipment and processes and investments in technology.

### **Highlights**

11.9%

Less potable water used by operations in Singapore.

1.6%

Lower carbon emissions by the Group.

5.7%

Less waste incinerated by operations in Singapore due to increase in recycling.

#### **Focus Areas**



Lower electricity consumption.



Improve reporting mechanisms.



Enhance water efficiency and recycling programmes.

### **Performance Overview**

### **WHAT WE SAID IN 2011**

- Improve water and energy efficiency.
- Reduce waste and emissions.
- Strengthen reporting frameworks and processes.

#### **WHAT WE DID IN 2011**

- Reduce indirect carbon emissions through the use of renewable energy.
- Implement water conservation programmes.
- Include overseas business units in reporting.

### WHAT WE PLAN TO DO

- Roll out electricity conservation programmes.
- Improve reporting mechanisms across the Group.
- Continue water conservation programmes.



Environmental management is a growing concern that requires the immediate attention of all stakeholders. The Keppel Group will continue to look for ways to improve its performance for the four environmental indicators: Energy, Water, Waste and Emissions & Effluents.

In our second environmental performance report, we expanded the scope to include overseas operations in which the Group has significant ownership. The figures for 2009 and 2010 only reflect the performance of the Group's major subsidiaries in Singapore.

This report includes Keppel Offshore & Marine (Keppel 0&M) and its significant subsidiaries, Keppel FELS, Keppel Shipyard and Keppel Singmarine; Keppel Land, Keppel Integrated Engineering (KIE), Keppel Telecommunications & Transportation (Keppel T&T) and Keppel Energy.

Due to commercial sensitivity, Keppel Energy's direct energy consumption and carbon emissions are excluded from this report.

### **ENERGY**<sup>ii,iii</sup>

Direct and indirect sources of energy are important resources for the Group to drive its operations across many industries. In 2011, the Group consumed 1,434,483 GJ of direct energy and 1,992,637 GJ of indirect energy or electricity. Keppel O&M consumed the most direct and indirect energy, accounting for almost 70% of the Group's total energy consumption (excluding Keppel Energy). Almost all the electricity consumed by the Group is generated by primary fuels.

Singapore operations consumed 963,708 GJ of direct energy and 1,480,791 GJ of indirect energy in 2011 compared to 870,002 GJ and 1,427,822 GJ in 2010. There is an increase of approximately 10.8% in direct energy used due to increased business activities from Keppel 0&M. Singapore operations also registered a 3.7% increase in indirect energy consumption compared to 2010

**Key Eco-Principles** 

# **ECO**llaboration

Working with stakeholders, policy makers and decision-makers to build a better future

# **ECO**nomy

Balancing commercial viability and environmental sustainability

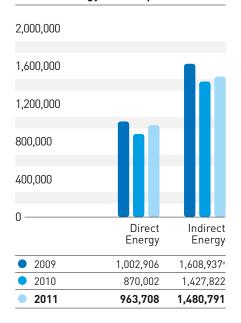
# **ECO**mmitment

Promoting environmental awareness and supporting green initiatives

# **ECO**mmunity

Creating sustainable developments for future generations

Singapore Operations Direct and Indirect Energy Consumption (GJ)



### Sustaining Growth Environmental Performance



- 1. Ocean Financial Centre features the highest solar installation in Southeast Asia.
- Senoko WTE Plant uses recycled water for general cleaning, thus reducing its usage of potable water.

due to the acquisition of a data centre in 2011.

### PROACTIVE ENERGY AND CARBON MANAGEMENT

The Group takes a proactive approach towards improving its environmental performance. It will continue to identify and adopt energy efficient technologies and practices to reduce energy consumption, carbon emissions and improve energy efficiency. In 2011, the Group saved a total of 57,370 GJ of energy. The savings were achieved through technological improvements, optimisation of equipment and processes, and the adoption of low-carbon practices.

### OCEAN FINANCIAL CENTRE HARNESSES SOLAR ENERGY

Keppel Land's 43-storey Ocean Financial Centre (OFC) in Singapore uses solar energy to reduce its need for energy from fossil fuels. As the first office development in Singapore to be awarded the Platinum Green Mark award, OFC features the highest solar installation in Southeast Asia. The height of the installation makes the generation of electricity from solar energy more effective. OFC's 366 solar panels can generate up to 86 MWh of energy each year, which can reduce up to 45 tonnes of carbon dioxide emissions.

### KEPPEL DHCS RECOGNISED AS SOLAR PIONEER

In 2011, a district cooling system (DCS) plant expansion by Keppel DHCS was conferred the Solar Pioneer Award. The award is conferred by the Energy Innovation Programme office, which is led by the Singapore Economic Board and the Energy Market Authority. The DCS plant extension at Changi Business Park will feature the largest photovoltaic cell installation on a building in Singapore with a planned system size of about 510 kilowatt-peak. 3380 square metres of solar panels will be installed on the rooftop and building façade which will produce an average of 46,000 kWh of electricity a month, equivalent to the annual electricity consumption of about 121 units of four-room HDB apartments.iv

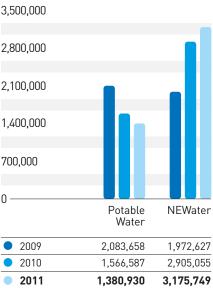
### KEPPEL LOGISTICS FOSHAN'S INSTALLATION OF SOLAR WATER HEATERS

Keppel Logistics Foshan's employee dormitories are equipped with solar water-heaters. The solar waterheaters will bring about 182,500 kWh of savings annually.





### Singapore Operations Potable Water and NEWater Used (m³)



### WATER

As water is an important resource required for many of the Group's operations, the Group is focused on reducing water consumption. Through water conservation initiatives, such as the installation of water-saving devices like water thimbles and flow-reducing valves, and the promotion of water conservation habits, the Group reduced its potable water consumption in 2011.

The Group's water consumption can be segmented into potable water, NEWater (treated wastewater from sewage) and recycled water. In 2011, the Group, including overseas subsidiaries, consumed 62,179,408 m³ of potable water.

Operations in Singapore consumed 1,380,930 m³ of potable water compared to 1,566,587 m³ in 2010. The 11.9% decrease in potable water consumption is due to water conservation initiatives adopted.

In 2011, the Group consumed 3,175,749 m³ of NEWater compared to 2,905,055 m³, registering a 9.3% increase from the previous year. NEWater is used for the cleaning

and hydro-jetting vessels at Keppel 0&M, and for cleaning and flushing of reverse osmosis and microfiltration membranes at Keppel Seghers Ulu Pandan NEWater Plant.

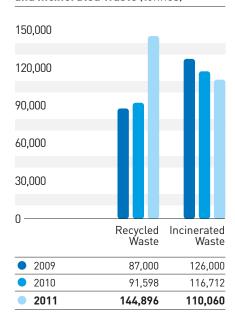
To reduce the amount of water consumed at KIE's Senoko Waste-to-Energy (WTE) plant, the plant recycles wastewater, which is a by-product of its operations. The wastewater is treated before it is used for general cleaning of the plant. In 2011, 67,303 m³ of wastewater was recycled. This is equivalent to the annual consumption of 297 HDB four-room flats. The amount of water recycled in 2011 increased 19.9% from 56,133 m³ in 2010.

### **WASTE**

The Group took conscious efforts to recycle and reuse where possible to reduce the amount of waste disposed. In 2011, the Group recycled a total of 737,055 tonnes of refuse. Waste recycled included ferrous scraps, grits, plastic stretch wrap, paper and other office consumables.

Singapore operations registered an improvement of 144,896 tonnes of recycled waste compared to

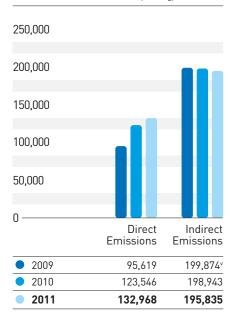
### Singapore Operations Recycled and Incinerated Waste (tonnes)



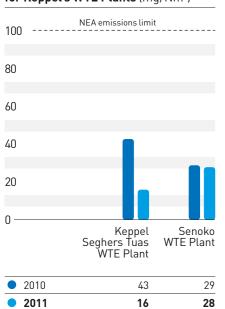
### Sustaining Growth Environmental Performance



### **Singapore Operations Direct Emissions** and Indirect Emissions (t-CO<sub>2</sub>)



### Average Particulate Matter Emissions for Keppel's WTE Plants (mg/Nm³)



- Less waste was sent for incineration due to increased recycling by employees.
- 2. Keppel takes an active role in managing

91,598 tonnes in 2010. The significant increase is attributed mainly to Keppel Shipyard's higher volume of work and inclusion of new data from Keppel Land's investment properties, namely Equity Plaza, Prudential Tower, Keppel Bay Tower, Ocean Financial Centre, Keppel Tower, GE Tower and Ocean Towers.

In land-scarce Singapore, refuse is incinerated to reduce the amount of waste before disposal at the landfill. In 2011, 110,060 tonnes of waste was sent for incineration in Singapore as compared to 116,712 tonnes in 2010. This registers a 5.7% decrease in waste sent for incineration due to increased employee awareness to separate recyclable waste from general waste. A total of 116,575 tonnes of waste was sent for incineration from the Group's Singapore and overseas operations.

As incineration of refuse is prohibited in the Philippines, Keppel Shipyard disposed their municipal waste at landfill sites. Likewise in China, the municipal waste generated at Keppel Logistic Foshan was disposed at landfill sites. In 2011, 33,222 tonnes of waste was landfilled.

There were no reports of major spillage in 2011 which could potentially affect the environment for the Group. There were also no incidents in 2011 of noncompliance with environmental laws and regulations.

### **EMISSIONS AND EFFLUENTS** CARBON EMISSIONS

In 2011, direct emissions from the use of fuels for the Group's operations amounted to 172,551 t-CO<sub>2</sub> while indirect emission from electricity use was 257,628 t-CO<sub>2</sub>.

In 2011, direct emissions from Singapore operations amounted to  $132,968 \text{ t-CO}_2$  which is a 7.6% increase, compared to 2010 due mainly to increased business activities. Indirect emissions from Singapore operations decreased by 1.6% to 195,835 t-CO $_2$ in 2011, which can be attributed to the continuous implementation of



energy conservation initiatives across the Group.

Indirect emissions continue to be the main contributor of the Group's carbon footprint and accounts for about 60% of total carbon emissions. The Keppel Group will aim to reduce the use of electricity to reduce its carbon footprint. The National Environment Agency's (NEA) Electricity Grid Emissions Factor of 0.4761 kg CO<sub>2</sub>/kWh was used in the calculation of indirect emissions.

Conscientious efforts and a proactive approach in reducing carbon emissions are driven by the Group's commitment to operate its businesses in a manner that is environmentally responsible and reduce its impact on the environment.

### **GREEN PRACTICES**

Keppel Land and K-REIT Asia's offices were re-certified by Singapore Environmental Council (SEC) as Eco-Offices for 2011–2013, in recognition of continuous efforts to implement green initiatives and ensure efficient utilisation of resources.

In 2011, Keppel Land replaced lighting fixtures in its corporate office to

energy efficient light-emitting diode (LED) lamps, which consume about half the energy of conventional fluorescent tubes. Keppel Land's corporate office energy usage per gross floor area fell about 6% to 99.1 kWh/m<sup>2</sup> from 105.4 kWh/m<sup>2</sup> in 2010. Paper usage in 2011 was 13.1 reams/employee, down about 9% from 14.4 reams/ employee a year ago.

### OTHER EMISSIONS

Keppel Energy and KIE continue to take an active role in managing air emissions. The amount of nitrogen oxides and sulphur dioxide emitted are well below the emission standards of 700 mg/Nm<sup>3</sup> and 500 mg/Nm³ respectively as stipulated by NEA's Code of Practice on Pollution Control.

WTE plant was 16.43 mg/Nm<sup>3</sup> and 28.36 mg/Nm<sup>3</sup> respectively which are well below the emission standard of  $100 \text{ mg/Nm}^3$ .

of nitrogen oxides, sulphur dioxide and other significant air emissions for the Group's Offshore & Marine and Property divisions.

### Ozone-Depleting Substances

Emissions due to the amount of ozone-depleting substances emitted from the Group's usage of refrigerants containing hydrochloroflurocarbons (HCFCs) at its Infrastructure and Property divisions were insignificant, when compared to the Group's overall footprint. The Group is looking into reducing the consumption of HCFCs and eventually phasing out HCFC refrigerants in accordance with NEA's plan.

- The report currently excludes Engineering Offices, research and development centres and Representatives Offices from Keppel O&M, Keppel Sea Scan, Keppel Seghers Belgium and Keppel Prince from KIE, and Termoguayas Generation from Keppel Energy.
- The conversion factors used for energy are based on the Environmental Indicator Protocols Set Version 3.1 and DEFRA 2010. The conversion factors used for direct and indirect emissions are based on DEFRA 2010, California Energy Commission and NEA Electricity Grid Emission Factor 2009 respectively.
- The US standards for gallons have been used for this year, in line with Environmental Indicator Protocols Set Version 3.1. Past year's Direct and Indirect Energy and Emissions figures have been updated
- Based on Singapore Power's National Average Household Electricity Consumption from January 2011 to December 2011. The average electricity and water consumption for a HDB four-room flat are 379 kWh and 18.9 m<sup>3</sup> per month respectively
- Indirect energy and carbon emission for 2009 are restated for data consistency.
- Primary sources of energy used by the Group include gas, diesel, petroleum, liquidified natural gas, compressed natural gas and acetylene.

In 2011, the amount of dust or particulate matter emitted by Senoko WTE and Keppel Seghers Tuas (KST)

There were no reported emissions

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### **Showcase:** Sino-Singapore Tianjin Eco-City

The Sino-Singapore Tianjin Eco-City (Eco-City) is a landmark bilateral project between China and Singapore, with private-sector investment and development. The Keppel Group leads the Singaporean consortium, and works in tandem with our Chinese consortium partners to guide our 50-50 joint venture – the Sino-Singapore Tianjin Eco-City Investment and Development Co., Ltd (TECID) in its role as the master developer of the Eco-City.

The Eco-City will be home to 350,000 people, and is envisioned to create a harmonious and sustainable community that meets the modern needs of an urbanising China.

Two key sets of principles guide the development of the Eco-City. The first, "Three Harmonies", refers to harmony between man and the environment, the economy, and the community. In line with this principle, the city is being developed in a manner that is environmentally-friendly and sustainable. Measures are also put in place to encourage a vibrant economy and harmony among residents.

The second set of principles is "Three Abilities", which means that the city must be practicable, replicable and scalable. The Eco-City is not intended to be an ostentatious project for wealthy societies.

A set of 22 quantitative and four qualitative Key Performance Indicators (KPIs), which cover various aspects of sustainable development, were set by the two governments to define the goals and measure the progress for the Eco-City.

For example, all buildings in the Eco-City must be environmentally-friendly; 90% of all commutes within the Eco-City must be eco-friendly; 20% of energy utilisation must come from renewable sources such as wind, solar and geothermal energy;

and the recycling rate must be greater than 60%. Other than technological aspects, KPIs relating to the social aspects of building sustainable communities have also been factored in. For example, 20% of the residential units are to be developed as affordable public housing to cater to the lower income groups.

The following are examples of what have been done towards achieving some of the KPIs.

#### SUSTAINABLE URBANISATION

Sustainable urbanisation begins with green master-planning, creating compact communities, and maximising passive design features.

The basic building block of the Eco-City is an "Eco-cell", which measures about 400 m by 400 m and is designed based on what is considered as a comfortable walking distance.

Running through the Eco-City is a 12 km Eco-Valley, which serves as a green spine, a place for recreation, and promotes green transport. Shops, offices and schools would be located close to the residential estates, reducing the need for private transport. Residents of the Eco-City will be well-serviced by a

The Eco-City is envisioned to create a harmonious and sustainable community.



comprehensive public transport system, which includes rail transportation, trams and buses. There will also be designated roads, pedestrian walkways and traffic systems for cyclists and pedestrians to encourage cycling and walking.

#### **GREEN BUILDINGS**

All buildings in the Eco-City will meet the Green Building Evaluation Standards (GBES). This is a hybrid evaluation standard established by China and Singapore for the Eco-City, which combines China's Green Star with the Singapore Green Mark certification. GBES buildings fulfil the requirements for energy, material, and water savings, and incorporate passive design features. For example, homes are oriented to benefit from daylight and natural ventilation.

Keppel Land's residential development, Seasons Park, and its commercial development, Season's City, as well as Keppel Logistics' distribution centre in the Eco-City will meet GBES standards.

### WATER FROM NON-TRADITIONAL RESOURCES

The Eco-City is situated in a water-constrained region. Rainwater will be collected from rooftops, porous pavements and roadside drains and conveyed via underground drainage pipes to minimise evaporation, before being transported to water bodies for reuse within the Eco-City. Apart from harvested rainwater, recycled water from sewage treatment plants will also be deployed for landscape irrigation and road flushing to reduce the demand for potable water.

### RENEWABLE ENERGY

The Eco-City harnesses renewable energy with solar photovoltaics, solar water heaters, ground source heat pumps and wind turbines, thus allowing the city to reduce its dependency on fossil fuels. Five giant wind turbines located at

the mouth of Ji Canal will provide green electricity of approximately 5 million kWh per annum. This can generate sufficient electricity to meet the annual demand of about 4.000 households. Solar panels installed along the Eco-City's eastern boundary have a total installed capacity of 6.6 million kWh, generating enough electricity to meet the annual demand of about 5,000 households. Also lining the streets in the Eco-City are 700 street lamps that are powered by a combination of wind and solar energy. These lamps can save up to 0.5 million kWh of electricity and 186 tonnes of coal annually.

A joint venture was set up between Keppel DHCS Pte Ltd, a unit of Keppel Integrated Engineering (KIE) and Tianjin Eco-City Energy Investment and Construction Co., Ltd to provide a central district heating and cooling system (DHCS) in the Eco-Business Park (EBP). DHCS enables buildings to consume less energy and produce less carbon emissions than conventional systems. Its energy-efficient and space-saving attributes make it suitable for city centres, large production plants, hospitals and property developments.

### WASTEWATER TREATMENT

A joint venture between KIE and TECID was formed to operate a wastewater treatment plant in the Eco-City.

With a land area of 190,000 m², the wastewater treatment plant was designed to treat¹ 100,000 tonnes/day in the first phase and 150,000 tonnes/day in the second phase. The treated water would form part of the main water body in the Eco-City called the Qingjing Lake, which would become a place for recreation. Simultaneously, there would be a water purification zone demarcated in the lake designed to further purify the water body. Currently, the first phase has been completed and water can be collected and tested.

### WASTE DISPOSAL AND SEGREGATION

Effective waste management is another important aspect of the Eco-City. In the start-up area, all residential developments are equipped with a pneumatic waste collection system (PWCS). In addition, SSTEC has engaged ST Environmental Services & Technologies to install PWCS in the EBP. This system of waste collection minimises the need for garbage trucks to go around the neighbourhood to collect refuse, reducing the emissions and environmental issues associated with garbage trucks.

Residents will be encouraged to sort their waste and recycle. Non-recyclable waste will be used to generate electricity in waste-to-energy plants a short distance from the Eco-City, while recyclables can be turned into useful products. Food waste decomposers will also be installed in selected locations to convert organic waste into water and compost.

To remove the polluted water from the wastewater pond, the pond had to undergo a dewatering process. After dewatering, the sludge was dehydrated and processed where the residual sludge was converted into soil fillers for the surrounding landscape. The treatment of the water was done within an enclosed area to minimise odour. Through the use of new technologies, the polluted water was separated by covering the oxidation ditch. At the same time, an odour remover was added to remove smell from the environment.

Keppel Corporation Limited Sustaining Growth
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### **Product Excellence**

The Keppel brand has grown to become synonymous with innovation, world-class quality and execution. We are committed to best practices, and continuously engage our customers to ensure a high level of satisfaction for our products and services.

### **Highlights**

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New orders secured by Keppel FELS in 2011, of which 23 were for Keppel FELS' proprietary designs.

80%

Of Keppel Shipyard's shiprepair turnover in 2011 was contributed by repeat customers.

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Green Mark Awards achieved by Keppel Land as at end-2011. The awards recognise best practices in environmental design and performance.

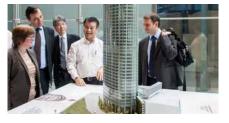
#### **Focus Areas**



Champion research and development (R&D) as well as innovation.



Implement best practices to protect customers' health and safety.



Engage customers for feedback and continuous improvement.

#### **Performance Overview**

### **WHAT WE SAID IN 2011**

- Invest in R&D and work with government agencies as well as academic institutions on solutions that are commercially viable and adaptable to the needs of the industry.
- Continue to factor in customers' health and safety into the design, construction and operation of our products and services.
- Engage customers for valuable feedback for continuous improvement.

### **WHAT WE DID IN 2011**

- Two new semisubmersible designs (DSS™51HE and DSS™60HE) were added to our suite of proprietary designs.
- The Group achieved several international and national awards, as well as re-certifications for standards such as ISO 9001, ISO 14001 and OHSAS 18001.
- Business units in the Group conducted regular customer surveys.

### **WHAT WE PLAN TO DO**

- Accelerate research efforts at Keppel Offshore & Marine Technology Centre (KOMtech) and Keppel Environmental Technology Centre (KETC).
- Ensure that property developments both in Singapore and overseas achieve at least the Building and Construction Authority (BCA) Green Mark Gold certification or equivalent.
- Actively engage customers for feedback.





#### **MANAGEMENT PHILOSOPHY**

In an increasingly competitive global arena, the Keppel Group continues to build on its brand equity by differentiating its products and services through technology and execution.

Over the years, we have garnered numerous national and international awards and accolades for our products and services – a testament to our unwavering commitment to excellence.

Central to the Group's pursuit of excellence are the Keppel core values of "customer focus" and "agility and innovativeness". By delivering value-added solutions in a timely and safe manner within customers' budgets, we aim not only to meet, but surpass the expectations of our customers. Our close relationships with customers allow us to understand their evolving needs and strengthen our product and service offerings.

Amidst an ever-changing business environment, the Group has to respond swiftly and constantly innovate for a competitive edge. Towards this objective, the Group places great emphasis on research and development, as well as innovation, to distinguish itself from its competitors.

### **BEST PRACTICE**

Keppel's products are designed to comply with international laws and regulations. Our key business units are certified to standards such as ISO 9001, ISO 14001 and OHSAS 18001, demonstrating our commitment to product quality, environmental protection and occupational health and safety.

In the offshore and marine industry, the stricter regulatory environment, especially after the Macondo incident in the Gulf of Mexico in 2010, resulted in heightened interest in newer drilling rigs with superior technology and safety features.

In 2011, Keppel FELS secured a total of 25 new orders, comprising 23 jackups and two semisubmersibles. Of these new orders, 23 were for Keppel FELS' proprietary designs, which reflects the market's acceptance and industry recognition of our suite of offshore solutions.

The KFELS B-Class jackup has now become the benchmark for the industry. A total of 20 such units were ordered by our customers since the last quarter of 2010.

The KFELS B class jackup rig and KFELS Semi-Submersible Drilling Tender (SSDT) have been lauded for their contributions to sustainable operations, as well as the safety and well-being of the rig crew.

In 2011, the Al Khor jackup drilling rig, built to the KFELS B-Class jackup design, won the Shell Drilling Rig Excellence Performance Award. Keppel FELS was conferred the Singapore Quality Class – Star Certification (SQC-Star) award, which recognises companies that display a high level of business excellence execution. Keppel FELS also obtained the Singapore Innovation Class Certification (I-Class) and People Developer Certification.

Keppel scored double accolades at the Lloyd's List Awards 2011 – Keppel Shipyard received the Shipyard of the Year Award while Keppel FELS received the Safety Award.



### Showcase: Reflections at Keppel Bay

Waterfront living has become a lifestyle trend worldwide that epitomises class and prestige. A Daniel Libeskind showcase at the Singapore southern waterfront, Reflections at Keppel Bay, is redefining sustainable waterfront living in the region.

The development, completed in December 2011, is expected to yield total savings in energy and water usage of about \$2.3 million annually. It was conferred the Green Mark Gold award in 2008 by the Building and Construction Authority (BCA) of Singapore.

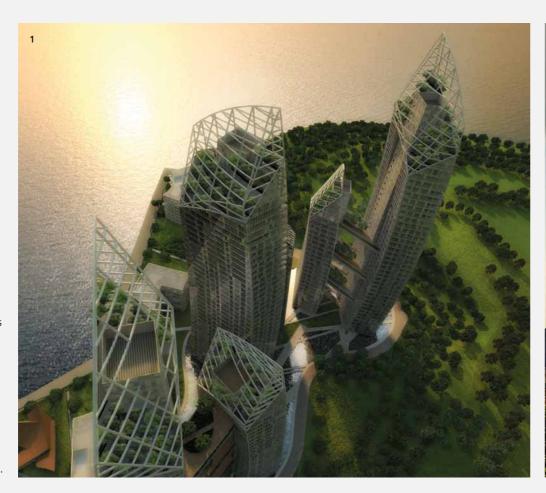
Energy-efficient measures at the development include the use of double-glazed and low emissivity (low-E) glass to reduce heat transmission. This allows natural light to enter the living spaces while offering panoramic views of the lush landscape of the development, the Keppel Club golf course and Marina at Keppel Bay.

Other features include the use of sub-meters to monitor energy consumption, energy-efficient lighting and machine room-less (MRL) elevators. MRL elevators save a significant amount of energy compared to hydraulic elevators. They do not require overhead rooms and, as a result, there can be significant reduction in the size of the electric motors used with traction equipment.

Alternate looping of lights is used in the carpark and staircase areas so that after midnight, non-essential lighting can be turned off by timers. Motion sensors have been added to control the lighting in private lift lobbies, changing rooms and clubhouse toilets. Homeowners have also been provided with energy-efficient air-conditioning systems, refrigerators and washing machines.

To conserve water, self-closing basin taps and auto-flushing systems are

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used in the common toilets, while sub-meters are installed at the swimming pool to monitor water consumption. In addition, an elaborate filtration system of underground tanks is used to collect and recycle rainwater to irrigate the landscaped areas.

Reflections at Keppel Bay boasts a high green plot ratio of 4.66, leveraging extensive softscaping and sky gardens to lower the local ambient temperature.

In addition, Reflections at Keppel Bay adopts innovative and greener systems. These include skylights to bring natural daylight into the basement, a natural water filtration system instead of chemicals for disinfecting the swimming

pools, a solar panel system to power aircraft warning lights, a siphonic rainwater collection system for effective rainwater drainage and a pneumatic waste-collection system for increased efficiency, hygiene and eco-friendliness.

The premier waterfront development has its own Customer Focus Unit (CFU) which has been established to build a long-term and engaging relationship with homeowners and residents.

The CFU plays a key role in delivering premium quality residential units and providing reliable customer service to homebuyers. The team ensures that all residential units are completed to an expected standard



before certifying it ready for handover to the purchasers.

The quality check by the CFU is over and above the BCA Quality Mark that the development has attained. After the handover, the CFU continues to be the point of contact for purchasers to provide feedback relating to the residential units and the surrounding amenities and services. Relevant suggestions gathered will be shared with the project team and used in the review of upcoming projects to improve product and service quality.

- Reflections at Keppel Bay features extensive landscaping and sky gardens.
- The use of double-glazed and low emissivity glass let in natural light and offer panoramic views of the lush surrounds.

### Awards

RoSPA (Royal Society for Prevention of Accidents) Awards – Gold Winner 2009, 2010 & 2012

BCA Universal Design Awards 2012 – Silver

BCA Design and Engineering Safety Excellence Awards 2012 – Merit CNBC Asia Pacific Property Awards 2009 – Best High Rise Development BCA Green Mark Awards 2008 – Gold

Keppel Corporation Limited

Sustaining Growth

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### Sustaining Growth Product Excellence

Despite another challenging year for the shiprepair and conversion industry, Keppel Shipyard continued to perform well. The company repaired a total of 281 vessels, with the majority being tankers, container ships and gas carriers. Repeat customers, including those with fleet arrangements, contributed more than 80% of Keppel Shipyard's shiprepair turnover. This reflects the close relationships which Keppel Shipyard has built with its customers, founded on the reliable services it provides.

In the Infrastructure Division, Keppel Telecommunications & Transportation's (Keppel T&T) subsidiary, Keppel Logistics, was awarded the Asia Pacific Green Home-Grown Logistics Service Provider by Frost & Sullivan in 2011 for exemplary leadership and excellent track record in corporate sustainability practices.

The award is a strong testament to Keppel Logistics' green efforts as an integrated logistics provider. Certified with ISO 14001 for Environmental Management Systems for 10 years, Keppel Logistics is committed to constantly improve to deliver better solutions for its customers.

Keppel T&T's data centres not only achieved the 2011 BCA Green Mark award, the centres also obtained the new Singapore Standard for Green Data Centres SS564:2010 in March 2011.

Our property arm, Keppel Land, was named "Best Developer in Singapore (Overall)" and "Best Office Developer (Singapore)" at the Euromoney Real Estate Awards in 2011. At the inaugural 2011 South East Asia Property Awards, Keppel Land was awarded the Green Development Award (South East Asia) for Ocean Financial Centre (OFC) in Singapore and the Best Condominium Development (Vietnam) for The Estella in Ho Chi Minh City.

Keppel Land also clinched two awards at the FIABCI Singapore Property Awards 2011 in both the Office and Residential High-Rise categories for Marina Bay Financial Centre (MBFC) Phase 1 and Marina Bay Residences respectively.

Keppel Land is committed to ensuring that its products, whether in Singapore or overseas, achieve at least the BCA Green Mark Gold certification or its equivalent. To date, it has garnered a total of 26 BCA Green Mark awards, including the highest accolade of Platinum Green Mark award for OFC in 2008. OFC was also the first high-rise office building in Southeast Asia to achieve the Platinum level LEED-CS (Leadership in Energy and Environmental Design-Core and Shell) pre-certification in 2009.

#### RESEARCH AND DEVELOPMENT

One of Keppel's key engines to sustain growth and create value is our focus on R&D and commitment towards technology innovation.

KOMtech and KETC, Keppel's own Centres of Excellence, were set up to advance R&D initiatives.

KOMtech spearheads the R&D of new technologies, processes and competencies across the spectrum of our businesses. The centre was restructured to become the Technology Division of Keppel Offshore & Marine (Keppel O&M) in 2012, responsible for R&D, product development and commercialisation, as well as Process Technology aimed at improving productivity in all our yards.

The arctic market remains an important focus area for KOMtech. Research efforts in designing ice-capable jackup rigs are progressing well and are on track to reach fruition by end-2013.

KOMtech's research work in the liquefied natural gas (LNG) market is also gaining traction, with a growing and active portfolio of research projects such as LNG Liquefaction Systems, LNG-fuelled vessels and LNG hose transfer systems.

KOMtech's research on increasing productivity and cost savings in the

shipyards made substantial headway in 2011. Other areas of research embarked on include emission scrubber solutions and cable-laying vessels. KOMtech aims to accelerate its R&D efforts in 2012.

KETC initiates, manages and conducts R&D, product development, engineering process and project management improvements and knowledge management activities within Keppel Integrated Engineering (KIE). It also collaborates with leading academic and research institutions, which include the National University of Singapore, Nanyang Technological University, Imperial College of London, and Beijing and Tianjin universities to build on knowledge.

KETC's research focus is in the area of environmental engineering, involving advanced water and waste-to-energy (WTE) technologies. For instance, the Spacer and Turbo-Charger projects developed by KETC and undertaken by Keppel Seghers, a subsidiary of KIE, have resulted in significant cost savings for the Keppel Seghers Ulu Pandan NEWater Plant in Singapore.

In 2010, KETC was successful in a National Research Foundation call for Competitive Research Funding towards a Co-Digestion project with one of its research partners. The project has since moved from laboratory demonstration to pilot plant phase. KETC also achieved two US provisional patents (PCTs) on anaerobic wastewater treatment technology. The patented improved digestor is envisaged to be highly efficient in producing green biogas while achieving cost savings.

Presently, KETC is working on a number of projects, including innovations on WTE plants, the treatment of biosolids waste with energy recovery, advanced wastewater treatment and seawater desalination.

### **CUSTOMER HEALTH & SAFETY**

The Keppel Group accords great importance to our customers' health and safety.



### Awards and Certifications

Offshore & Marine - Keppel Offshore & Marine	
KEPPEL FELS	
Shell Drilling Rig Excellence Performance Award – B-Class Jackup	2011
The Safety Award at Lloyd's List Asia	2011
Singapore Quality Class Certification	Since 2002
Singapore Innovation Class Certification (I-Class)	Since 2004
5th Amongst Top 10 Shipbuilders Including Offshore by Worldyards	2011
ISO 9001 Certification	Since 1994
Intergraph 3D Design Award	2011
KEPPEL SHIPYARD	
The Repair Yard Award at Seatrade Awards	2011
The Shipyard Award at Lloyd's List Asia	2011
ISO 9001 Certification	Since 1996
ISO 14001 Certification	Since 2004
Singapore Quality Class Certification	Since 1999
SS 506 Certification	Since 2010
Infrastructure - Keppel Integrated Engineering	
KEPPEL SEGHERS ENGINEERING SINGAPORE	
ISO 9001, OHSAS 18001 and ISO 14001 Certifications	Since 1999/2006/2007
Keppel Telecommunications & Transportation	
KEPPEL LOGISTICS	
ISO 9001 Certification	Since 1993
ISO 14001 Certification	Since 2002
OHSAS 18001 Certification	Since 2002
ISO 13485 Certification	Since 2009
Good Distribution Practice for Medical Devices in Singapore	Since 2009
Asia Pacific Green Home-Grown Logistics Service Provider of the Year by Frost & Sullivan	2011
Management of Food Safety based on HACCP (Hazard Analysis and Critical Control Point)	2011
KEPPEL DATA CENTRES	
SS 564 Certification: Keppel Datahub	Since 2011
ANSI/TIA-942 (Tier 3) Certification: Keppel Datahub	2010
SS 507 Certification: Keppel Digihub and Keppel Datahub	Since 2009/2011
ISO/IEC 24762 Certification: Keppel Datahub	2011
BCA Green Mark Gold Award: Keppel Datahub	2011
Property	
KEPPEL LAND	
4 BCA Green Mark Awards (Total 26 BCA Green Mark Awards as of end-2011)	2011
FIABCI Singapore Property Awards – Office Category: Marina Bay Financial Centre Phase 1	2011
FIABCI Singapore Property Awards – Residential High-Rise: Marina Bay Residences	2011
Euromoney Real Estate Awards – Best Developer in Singapore (Overall)	2011
Euromoney Real Estate Awards – Best Office Developer in Singapore	2011
South East Asia Property Awards – Ocean Financial Centre/The Estella	2011
World Travel Awards – Indonesia's Leading Business Hotel 2011: Hotel Sedona Manado	2011
World Travel Awards – Myanmar's Leading Hotel 2011: Hotel Sedona Yangon	2011
Global CSR Awards – Product Excellence Award (Gold)	2011
ISO 14001 Certification	Since 2008

### Sustaining Growth Product Excellence



Due care and diligence are strictly exercised in the design, construction, and operation of our products and services to ensure that they are fit for their intended use and do not pose unintended hazards to customers' health and safety.

Health and safety impacts during all life cycle stages of the Group's products are constantly assessed. For instance, during building processes and the usage, storage and disposal of materials. Policies, procedures, guidelines on environment, health and safety are implemented and adhered to ensure that our customers' health and safety are not compromised.

At Keppel O&M, offshore rigs are designed to comply with international marine laws and regulations. This ensures that environmental impacts (for example, emission levels and hazardous waste discharge) during operation are minimised to protect customers' health and safety.

Keppel Land has been adopting the Design for Safety in Buildings and Structure Guidelines (DFS) for all its new projects in Singapore since 2008. This is an advanced safety management tool that essentially requires its designers and consultants to review the safety and health risks associated with their projects with Keppel Land. A Guide Process consisting of three phases - Concept Design Review, Detailed Design, Maintenance and Repair Review, and Pre-Construction Review – is carried out at various stages of the project to influence the design and identify the risks as early as possible.

KIE adheres to a set of health and safety policy and procedures that guides the design, construction and operation of plants and facilities. Environmental and safety impacts are assessed at all stages, from design development to construction and operation, in accordance with the company's environmental and safety management systems, which are compliant with ISO 14000 and





OHSAS 18000 standards. For example, proper design, handling, storage and disposal of materials are considered as early as the planning stage. Product operation and service performances are also constantly reviewed for improvements in relation to customers' health and safety.

Procurement of materials and equipment are made with responsible and reputable vendors, taking into consideration the health and safety impacts during their useful life. Disposal companies that are ISO 14001 certified are engaged to ensure proper disposal of hazardous waste.

### **CUSTOMER ENGAGEMENT**

Customer Focus is one of Keppel's eight core values, and we believe that customer engagement is essential for our sustainable growth and long-term success.

Mechanisms for customers to provide feedback and suggestions are in place to assess and maintain customer satisfaction with Keppel's products and services. We seek to understand our customers' pressing needs and concerns, and translate them into action at the ground level. This process helps the Group to achieve customer satisfaction and work towards continuous improvement.

Keppel FELS conducts surveys on customer satisfaction every four months, which involves a questionnaire and face-to-face interview sessions. The overall average score in a survey covering 30 projects for the Company in 2011 was 4.56 on a scale of 1 to 6 (1 – very poor, and 6 – excellent), which is in the "good" to "very good" range.

Similarly, other business units such as Keppel Energy (KE), Keppel Shipyard (KSL) and Keppel T&T also gather feedback on a regular basis for continuous service improvement.

KE conducts meet-ups with key customers to gather customer feedback and address their concerns. Feedback received so far has been generally positive and KE makes it a point to follow up on areas of improvement suggested by customers.

Prior to award of projects, KSL conducts Client Relations Meetings

to ensure that expectations are clear and understood. On completion of a project, a Post Project Review is conducted to identify success and improvement areas. Customer feedback is obtained regularly, and performance is monitored using a Customer Satisfaction Index (CSI).

Keppel Logistics conducts yearly customer surveys. The average score for quality in 2011 has improved from 3.65 in 2010 to 3.67 in 2011, out of a full score of 5. Scores are given based on the following five attributes: Availability, Responsiveness, Timeliness, Completeness and Professionalism. Keppel Logistics also obtains feedback from customer site audits, annual customer nights as well as daily phone calls and emails.

Keppel Data Centres conducts monthly facility meetings with clients to gather information on their level of satisfaction.

For our property division, Keppel Land's Customer Focus Unit (CFU) and Property Management division are dedicated to fostering and sustaining good long-term relationships with customers. Feedback from homeowners and tenants is taken into consideration in the review and improvement of upcoming projects and existing developments. Regular events, such as annual Golf Tournaments, Mid-Autumn Festivals and National Day celebrations, are organised to build rapport with customers.

In 2011, service quality surveys were conducted for nine completed residential projects and five commercial buildings. An average of 90% of the respondents indicated that they were satisfied with the services rendered in the management and operations of the developments.

#### COMPLIANCE

Keppel subscribes to best practices as well as complies with applicable legislations and requirements. In 2011, the Group has not identified any non-compliance with laws, regulations and voluntary codes concerning the provision and use, as well as health and safety, of its products and services.

Our business units abide by the Singapore Code of Advertising Practice (SCAP) by the Advertising Standards Authority of Singapore. The Code seeks to promote a high standard of ethics in advertising through industry self-regulation. The basic premise of the SCAP is that all advertisements should be legal, decent, honest and truthful. The SCAP was formulated against the background of national law, and international law and practice, including the International Code of Advertising Practice published by the International Chamber of Commerce.

We remain focused on customers' needs and will exercise due care to ensure customers' health and safety, while providing products and services stamped with our hallmark quality and excellence.

- On completion of a project, Keppel Shipyard conducts a Post Project Review with customers to identify improvement areas.
- Keppel Land fosters strong relationships with tenants to better appreciate their office requirements.

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### **Showcase:** DSS<sup>TM</sup>38 Semisubmersible

Jointly developed and owned by Keppel's Deepwater Technology Group (DTG) and Marine Structure Consultants (MSC), the DSS™38 design rig joins the league of some of the world's most advanced drilling semisubmersibles.

It is a highly efficient drilling platform designed with equipment suitable for well workover (completion and intervention), exploration drilling as well as development drilling.

The vessel is optimised in all aspects
– functional requirements, motion
behaviour, stability characteristics,
safety, layout of spaces, structural
strength and arrangement, construction
and production-friendly features, as well
as fabrication details.

DSS™38 is rated to drill 30,000 feet below mud line in water depth of over 9,000 feet, has an operational displacement of over 38,000 tonnes and can accommodate 130 persons.

It also features both vertical and horizontal riser storage and is configured with eight 3,000 kW azimuthing thrusters to keep the vessel in position under the most severe environmental conditions. The configuration complies with American Bureau of Shipping's Dynamic Position System (DPS 2) requirements.

Distinguishing this rig is the high level of environmental protection built into its operations. The DSS™38 complies with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78 Consolidated Edition 2002 requirement, with stringent criteria on the prevention and control of harmful discharge/emission. It is particularly well-suited to handle the operational requirements in the deepwater "Golden Triangle" region, which comprises Brazil, Africa and the Gulf of Mexico.

The DSS™38 is also equipped with enhanced features for the safety and well-being of crew on board. Column machinery spaces are designed with double skin to protect against flooding in the event of a tug boat collision. The mud process and mixing rooms are located far away from living quarters to improve safety and reduce cross-contamination.

For contingencies, the two engine rooms are positioned such that one is at the port side and the other is at the starboard side. The water plane area is designed to provide uniform metacentric height and more stability, thereby ensuring better crew comfort.

The two DSS™38 semis, Gold Star and Alpha Star, previously delivered by Keppel FELS to Brazil's Queiroz Galvão Óleo e Gás (QGOG), are operating efficiently without disruption in offshore Brazil for Petrobras.

Advancing Keppel's innovative suite of deepwater solutions, the DSS™38E is an enhancement of the DSS™38. It is rated to drill to depths of 10,000 metres below the rotary table in water depths of 3,000 metres.

Keppel is currently constructing one for Petrobras, with another five under a Letter of Intent for Sete Brasil, a Brazilian company formed by Petrobras and seven Brazilian finance investors, including banks and the four biggest Brazilian pension funds.

Petrobras Netherlands B.V (PNBV) has increased their requirements for the DSS™38 design since 2006. The DSS™38 was specially designed to meet PNBV's requirements as of 2006. With PNBV venturing into pre-Salt drilling in increased water depth, the functional requirements of the rig have naturally increased.

Keppel FELS has addressed the stringent requirements with an enhanced DSS™38E design. The design meets new requirements such as station-keeping capabilities from DP2 to DP3, higher variable deck load,

bigger deck space for third-party equipment, operating water depth, drilling depth, drilling package and accommodation.

The DSS™38E has accommodation facilities to house a crew of up to 160 men. It has both vertical and horizontal riser storage. The rig is also designed to keep position via eight azimuthing thrusters, and the configuration complies with American Bureau of Shipping's Dynamic Position System (DPS-3) requirements. It also complies with the MARPOL 73/78 Consolidated Edition 2002 requirement.

- Gold Star, a DSS™38 semi delivered by Keppel FELS, is operating without disruption in offshore Brazil for Petrobras.
- The DSS™38E is the latest enhancement to Keppel's innovative suite of deepwater solutions





Keppel Corporation Limited Sustaining Growth
Sustainability Report 2011 Product Excellence

#### **Empowering Lives**

### Safety and Health

We are focused on ensuring a safe and healthy environment for everyone, from employees to subcontractors and customers.

#### **Highlights**

\$26.7 million

Invested to improve safety systems and training.

4,288

Personnel trained at Keppel Safety Training Centre and Safety Awareness Centre. 0.25

Reportable accidents for every million man-hours worked, down from 0.33 in 2010.

#### **Focus Areas**



Refine management system, with clear benchmarks to improve Group safety.



Enhance culture of safety ownership at the ground level.



Strengthen partnerships with all stakeholders.

#### **Performance Overview**

#### **WHAT WE SAID IN 2011**

- Establish integrated Workplace
   Safety and Health (WSH) framework
   across our businesses worldwide.
- Enhance safety management and procedures.
- Share best practices and embrace open communication.

#### **WHAT WE DID IN 2011**

- Extended Keppel WSH 2018 strategy to overseas business units.
- Embarked on comprehensive three-year exercise to review Keppel's Safety Journey.
- Launched e-Safety Portal and cross-pollination programme to enhance knowledge sharing.

#### WHAT WE PLAN TO DO

- Strengthen WSH framework to build a strong safety culture.
- Aim for a zero-incident workplace.
- Establish effective partnerships with our stakeholders to ensure that all adopt effective WSH practices.





#### **SAFETY IS OUR BUSINESS**

Embracing the philosophy that safety is everyone's business, the Keppel Group believes that creating a safe workplace requires collaboration from all stakeholders. In this regard, stakeholders from employees to customers and subcontractors are encouraged to take ownership of safety, exchange experiences and knowledge as well as foster positive behavioural changes.

Through the Keppel Workplace Safety and Health (WSH) 2018 strategy introduced in 2010, we have focused our efforts on four key thrusts to align Group efforts and improve our safety and health practices. The strategy, which was introduced to Keppel's Singapore operations, was extended to our overseas business units in 2011. Keppel is the first company to launch a corporate initiative in line with the National WSH 2018 strategy.

The strategic thrusts of our strategy are:

- Establishing an integrated framework;
- Implementing an effective management system;
- Enhancing ownership; and
- Strengthening partnerships.

To appraise the effectiveness of our efforts to improve safety, we have been consolidating and assessing safety and health information from various business units across more than 30 countries.

Due to the size, geography and diversified nature of our businesses, we initially concentrated on the operational and high-risk areas and are extending the coverage to other areas, such as office environments. We will continue to ensure that all our employees are taken into account.

#### AN INTEGRATED FRAMEWORK

Our challenge in Singapore is to ensure that our multi-national, multi-cultural workforce, especially our subcontractors, are properly inducted with knowledge on safety despite their different backgrounds and work experiences. It is important that newcomers follow strict safety rules and procedures in our shipyards, plants, worksites and offices.

All Keppel business units comply strictly with all applicable laws and regulations in the countries we operate in. In addition, we seek to ensure that our high safety standards are enforced across the Group.

Due to the different nature of their respective industries, each business unit has its own safety management system that is externally audited by independent safety consultants. Keppel Offshore & Marine (Keppel 0&M) has adopted the International Safety Rating System which has been comprehensively audited by Det Norske Veritas. Keppel Integrated Engineering (KIE) has obtained accreditation for its Integrated Management System covering ISO 14001 for Environmental Management. Keppel Telecommunications & Transportation's (Keppel T&T) business units have also obtained accreditation for its Health, Safety & Environment (HSE) management system covering ISO 14001 for Environmental Management.

Keppel Safety Training Centre continues to equip employees and subcontractors with relevant training on workplace procedures.

#### **Empowering Lives Safety and Health**



At Keppel Land, all project sites follow Singapore's Workplace Safety and Health Safety Management System for construction sites under code CP79. Although individually measured against different benchmarks, the various safety management systems are aligned with Keppel's standards.

Keppel's centralised electronic Global Incident Reporting System adopted across the Group ensures that senior management and relevant safety personnel are kept abreast of incidents and take immediate corrective measures. Through a web portal launched in 2011, best practices are shared across the Group in a systematic way.

#### AN EFFECTIVE MANAGEMENT SYSTEM

Keppel Corporation established a Board Safety Committee (BSC) in 2006, the first by a public-listed company in Singapore, to review and develop safety policies across its multiple business units. The formation of the BSC provides strong and visible leadership as well as commitment from the top.

To hone the competencies of staff, we implemented a cross-pollination

programme where employees in key positions are seconded to other business units to learn and share safety practices. The programme continues to gather momentum with growing participation. For instance, safety personnel from Keppel T&T and Keppel Logistics visited Keppel Land's operations in Ho Chi Minh City, Vietnam, to learn how Keppel Land tackles their challenges.

For the property division, every construction worksite in Singapore and overseas has a Site Health and Safety Committee, which is headed by a project manager from the main contractor and supported by Keppel Land's project team who serves as advisors and observers. The committees meet at least once a month to discuss safety inspection findings, incidents and injuries, work activities and coordination, as well as on-site health and safety events.

Last year, three Environment Health and Safety (EHS) officers from Keppel Seghers' headquarters in Singapore conducted internal EHS audits at its Doha North Sewage Treatment Works and Domestic Solid Waste Management Centre projects in Qatar. The audit led to several initiatives to improve the EHS management system, which included raising the safety standards of subcontractors' scaffolding by complying with Singapore's standards, as well as increasing protection for workers against exposed electrical wirings.

KIE and Keppel T&T continue to promote a strong safety culture and mindset by organising safety promotion activities and training programmes such as EHS month, management safety site walks, equipment safety training sessions, and sharing sessions on lessons learnt.

The Keppel Safety Training Centre continues to equip employees and subcontractors with relevant training on workplace procedures. The Centre employs the latest equipment, and offers courses run by qualified instructors, and augmented by multimedia tools and simulations of real-life scenarios. In 2011, 3,088 workers and subcontractors were trained at the Centre, where key courses were tied to High Impact Risk Activities awareness.

#### **ENHANCING OWNERSHIP**

Ownership in safety is a key thrust of the Keppel WSH 2018.





The annual Keppel Group Safety Convention continues to be a platform for reflection on improvements which provides motivation to progress on our safety journey. The fifth Keppel Group Safety Convention was held in November 2011 and involved more than 800 participants. At the convention, Keppel's senior management, employees and external stakeholders reaffirmed the pledge that "safety is everyone's business".

To foster a culture of safety ownership at the ground level, we introduced the "Plus 5 for Safety" initiative for our offshore and marine division. Through this initiative, we aimed to enhance ownership among supervisors, who are responsible in ensuring the safety of their charges. It is important that they conduct proper briefings and risk assessments before the commencement of any job. Workers are also encouraged to identify potential hazards and report near misses without fear of penalty.

Our property arm, Keppel Land, opened a Safety Awareness Centre in Ho Chi Minh City in June 2011 to facilitate training so as to raise safety standards among its contractors. The objective is to increase the safety awareness of the contractors' employees through a series of courses on various topics, ranging from working at height to firefighting. Close to 1,200 personnel have undergone training since the opening of the centre. In addition, safety personnel from Singapore were seconded to Keppel Land's office in Kolkata, India, to assist the team in building their safety management, communication and risk assessment capabilities.

#### Keppel Workplace Safety & Health (WSH) 2018

#### VISION

For everyone at our workplace to go home safely every day



#### **MISSION**

To strengthen our safety culture by leveraging the Group's resources and expertise



#### **STRATEGIC THRUSTS**

Framework System Ownership Partnerships

#### **STRATEGIC OUTCOMES**

Strong WSH culture

WSH – Integral part of business

Reduction in WSH incidents

- Keppel's senior management, employees and external stakeholders reaffirm the pledge that "safety is everyone's business" at the fifth Keppel Group Safety Convention.
- Keppel Land opened a Safety Awareness Centre in Ho Chi Minh City in June 2011 to facilitate training so as to raise safety standards among its contractors.

#### Empowering Lives Safety and Health



At KIE, workers and contractors participated in monthly safety meetings to discuss how safety at worksites might be enhanced. Keppel Energy's safety audits and site inspections are now extended to its subsidiary in Ecuador, Termoguayas Generation S.A. (TGSA).

#### STRENGTHENING PARTNERSHIPS

Keppel works in close collaboration with stakeholders that include contractors, customers, industry partners and regulatory bodies. We strive to empower every stakeholder to be responsible for his own safety as well as that of others around him.

In Singapore, we continue to work closely with the Ministry of Manpower (MOM) and WSH Council (WSHC) to implement initiatives that help to raise safety standards within our industries.

Several business units under the Keppel Group have been bizSafe

Partners since 2008. As bizSAFE partners, we provide tangible business incentives to motivate our contractors and vendors to progress through the various levels of the bizSAFE programme. In addition, Keppel Land progressed from a bizSAFE Partner to bizSAFE Mentor in 2011, the highest recognition under WSHC's bizSAFE programme.

Another way in which Keppel conveys its commitment to safety is its support for industry-wide safety platforms. In 2011, we hosted delegates from ASEAN at the inaugural ASCOPE (Association of Southeast Asian Nations Council on Petroleum) Safety Workshop.

Other than maintaining a safe working environment for our employees, we are also mindful that our operations do not pose any risk to the health and safety of persons in the vicinity. For instance,

Keppel FELS notifies neighbouring companies to exercise caution when navigating around the vicinity of its heavy lifting operations. Such communication and coordination help prevent potential accidents.

KIE marked a big milestone in its safety journey by unveiling the KIE EHS 2018 strategy at its annual EHS Convention on 18 February 2011. One of the initiatives under the KIE EHS 2018 is the "Truck Safety Campaign". The company aims to work closely with the National Environment Agency, the MOM, industry associations and public waste collectors to enhance safety in its waste-to-energy plants. Beyond truck safety, KIE will also look at other areas of plant operations where safety can be improved.

#### RECOGNITION

The Keppel Group clinched a record 26 awards at the Workplace Safety and Health (WSH) Awards 2011.

Obayashi-Woh Hup Joint Venture and Woh Hup Pte Ltd, the main contractors for Ocean Financial Centre and Marina Bay Suites respectively, received the Safety and Health Award Recognition for Projects Award for their efforts in upholding safe practices.

Our safety innovations were also acknowledged at the Association of Singapore Marine Industries' 14th Convention for Workplace Safety and Health Innovations in Marine Industry on August 2011. Keppel FELS received Silver for its "Smart Intelligent Trolley" project, while Keppel Singmarine took Bronze for its "Safe Puncher" project. In October 2011, Keppel FELS and Keppel Shipyard won the Lloyd's List Asia Awards for Achievement in Safety, and Shipyard of the Year respectively.

#### SAFETY PERFORMANCE

across the Group on safety improvement

measures, which include infrastructure and system upgrades as well as training and development.

Over the years, we have maintained a good safety record working and focusing on high-risk sectors. Across the globe, our accident frequency rate (AFR) has steadily declined.

It is with regret and humility that we report 13 fatalities across our global operations in 2011, amongst these was a single incident at Keppel Subic Shipyard in the Philippines that resulted in multiple fatalities.

While workers were doing repair work on a car-carrier vessel, the stern ramp of the vessel moved while being worked on, causing the support underneath the ramp to topple. Some workers were on the scaffolding underneath the ramp edge and on the ramp at

the time of the incident. As a result, the lives of six workers were lost, and six others sustained injuries.

Following the incident, Keppel Subic Shipyard's immediate focus was to help the affected workers and their families. The necessary financial assistance was provided to cover the funeral and medical expenses, and subsequently, more comprehensive financial assistance packages were offered to the families.

Our thoughts and condolences go out to all of the families and friends affected by these tragic losses.

Deeply regretting the loss of lives, we have drawn lessons from all incidents and implemented remedial measures across the business units. This incident has also strengthened our resolve to continue to reach out to every worker and employee on the importance of safety.

Our experience in 2011 clearly shows that safety is an ongoing journey and we must never be complacent.

#### OCCUPATIONAL HEALTH

Other than creating a safe work environment, we provide programmes and services to help our employees lead healthier lives.

By supporting programmes that promote workforce and community health, we play a constructive role in addressing the broader economic and social development of the communities where we operate.



In 2011, we invested over \$26.7 million

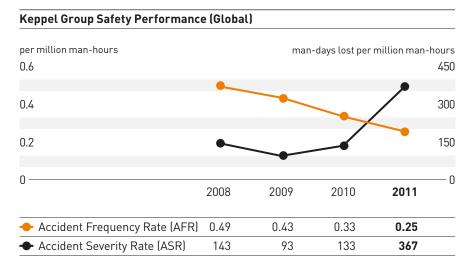




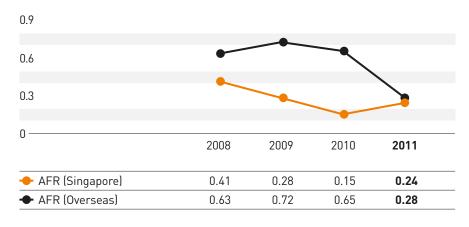
- Keppel Offshore & Marine's "Plus 5 for Safety" aims to enhance a sense of ownership among supervisors, who are responsible in ensuring
- Through rigorous safety training programmes, we arm our people with the competencies to protect themselves and those around them.
- Keppel Group clinched a record 26 awards at the Workplace Safety and Health Awards 2011.

**Keppel Corporation Limited Empowering Lives** 47 46

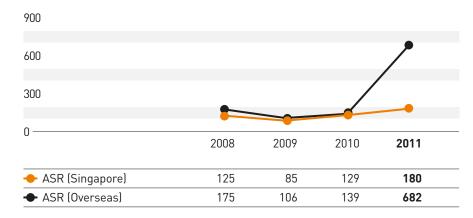
### **Empowering Lives Safety and Health**



### **Cumulative Accident Frequency Rate – Keppel Group** (per million man-hours)



### **Cumulative Accident Severity Rate – Keppel Group** (man-days lost per million man-hours)



Employees across the Keppel Group are offered health screenings which include basic tests such as blood pressure measurement and full cholesterol profiling, as well as optional comprehensive screenings at low cost. In addition, employees need to be certified fit through regular health checks before they can take on strenuous work.

In 2011, Keppel Logistics obtained the Occupational Health and Safety Assessment Series (OHSAS) 18001 certification, which Keppel Land and Keppel Energy are in the process of obtaining by the end of 2012. Keppel Shipyard and Keppel Singmarine adhere to the Singapore Standard SS 506 certification scheme for occupational health and safety. In addition, KIE's four business units – Keppel Seghers, Keppel DHCS, Keppel FMO and Keppel Sea Scan have obtained OHSAS 18001.

Dengue fever, dengue haemorrhagic fever and malaria are the most common mosquito-borne viral diseases in the world, and are endemic in tropical countries such as Singapore. There is no cure for dengue, which is spread by the Aedes mosquito. To address the health risks of dengue and malaria, Keppel O&M organised educational talks on dengue and malaria protection. The talks help to combat dengue and malaria through awareness and prevention measures.

To raise awareness of early breast cancer detection, Keppel Land organised mammogram screenings for female employees during the Breast Cancer Awareness month in October 2011, while Keppel O&M organised talks on cancer symptoms to alert employees to the importance of early detection and treatment.

To promote healthy living, Keppel 0&M organised health awareness programmes on smoking cessation and nutritional diets.



### Special Feature: Safety self-assessment



A keen understanding of attitudes is critical to build cultures and effect change. As such, the Keppel Safety Perception Survey serves a critical role in enhancing Keppel's safety framework.

This review effort is an extension of the Keppel WSH 2018 initiative, which seeks to significantly reduce Keppel Group's incident rates over the next few years. More than 20,000 employees and subcontractors' workers across the Keppel Group participated in the survey, which aims to assess its safety culture, systems and performance as well as gather ideas for improvement.

Following the Keppel Safety Perception Survey conducted on 5 January 2011, Keppel Group embarked on a comprehensive three-year exercise to review its safety journey. Comprising site assessments and safety roadmaps for individual business units, the programme is benchmarked against the Singapore operations of DuPont, a global leader in world-class safety

consulting, which was engaged to assist the Group with a thorough assessment of its safety systems and culture.

To increase accountability and encourage ownership, Keppel Group has trained 11 lead assessors and 20 assessors, whose main role is to promote safety leadership and inculcate safe habits. Over the next two years in 2012 and 2013, Phase Two of the Group-wide exercise will see coaching being incorporated in the assessors' training to hone their soft skills, and a database being developed to keep track of action items.

Also, the Keppel Group has developed a safety roadmap with strategic safety targets and benchmark indicators addressing the areas of leadership, structure and work processes. It aims to inculcate a total of 11 safety characteristics including leadership by example, common shared values, strong teamwork and pride in the organisation. The safety roadmap

will be reviewed and updated periodically to ensure a strong and consistent safety culture.

John Birchall, Keppel Group Safety Coordinator, said: "This exercise provides us with the tools to significantly improve and align safety efforts across our business units. We believe we have the systems in place. Now we need to build a pool of key personnel across business units, hierarchies and professions to foster a culture of safety. Their mission is to influence others around them to be safety ambassadors as well."

At the Keppel Group Safety Convention in 2011, Health, Safety and Environment (HSE) and Operational personnel were recognised for their efforts as safety assessors.

#### **Empowering Lives**

### **People Matter**

Our employees are our most valuable asset. By protecting and promoting the safety and health of our employees, and growing the capabilities of our workforce, we aim to create a working culture where all employees take a shared responsibility for the delivery of our business goals.

#### **Highlights**

\$20.5 million

Invested in training and development programmes for employees globally.

205

Retirees re-employed across the Keppel Group.

60.7%

Of our global workforce are hired locally.

#### **Focus Areas**



Embrace diversity and inclusiveness, fostering a fair workplace environment.



Build the capabilities of our workforce at all levels of the business.



Attract and retain talent.

#### **Performance Overview**

#### **WHAT WE SAID IN 2011**

- Grow the capabilities of our global workforce and talent pool.
- Improve communication and engagement with employees.
- Uphold fair employment practices and adhere to the principle of fair and merit-based employment.

#### **WHAT WE DID IN 2011**

- Invested \$20.5 million in training globally, with each employee receiving an average of 30 hours of training.
- Conducted Group-wide
   Organisational Climate Survey which registered a 91.7% response rate.
- Supported re-employability beyond statutory retirement age.

#### WHAT WE PLAN TO DO

- Continue to adhere to the practices spelt out by The Tripartite Alliance for Fair Employment Practices.
- Strive towards progressive localisation in the communities where we operate.
- Continue to engage our employees and advocate wellness.



## Keppel operates in over 30 countries, with a workforce of 40,105 employees.

We recognise our employees' contributions towards achieving sustainable growth for the Group, and continue to enforce fair employment practices that are consistent with applicable laws and regulations of the countries where we operate, and build trusting and harmonious working relations with our unions.

We grow the capabilities of our global workforce through leadership development programmes and training opportunities, and engage our employees to promote long-term career development.

The Keppel Group Core Values unite our employees, and guide our recruitment, performance management, leadership development and reward and recognition processes.

### **Keppel Group Our Core Values** Strong Values, Strong Results



The headcount figures reported in this section include associated companies where Keppel has management control (as at 31 December 2011).

#### **Empowering Lives People Matter**

#### **HUMAN RIGHTS**

Keppel respects human rights. We have implemented a number of policies throughout the Group in support of human rights principles, including fair employment practices and a grievance and harassment policy. We also offer equal opportunities with regard to recruitment of employees.

Keppel enjoys an excellent working relationship with its employees and unions, based on the trust fostered over the years. We view the unions as strategic partners, and place great emphasis on maintaining a harmonious relationship.

Close to 40% of our global workforce are bargainable employees covered by Collective Agreements (CA). For unionised companies, employee grievances are resolved according to the grievance handling protocol spelt out in the respective CAs. Every reasonable effort will be taken by both management and the union to resolve an employee's grievance promptly.

There were no reported incidences of discrimination or unresolved work grievances raised by our employees in 2011. This is the result of our concerted effort to be a fair and responsible employer.

Through our policies and the planning and administration of our employment practices, we are confident that our operations and significant suppliers are not involved in unethical labour practices such as child or forced labour.

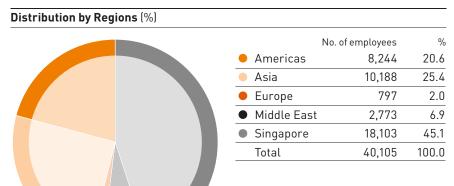
### EMPLOYMENT POLICIES AND PRACTICES

### WORKFORCE DIVERSITY AND FAIR EMPLOYMENT PRACTICES

In our operations worldwide, Keppel adopts merit-based recruitment practices, and embraces diversity and inclusiveness. Our employment statistics illustrate the diversity of our workforce, and are regularly reviewed.

We firmly uphold fair employment practices and adhere to the practices spelt out by The Tripartite Alliance for

#### **GLOBAL WORKFORCE**



Fair Employment Practices (TAFEP). We endorse the Employers' Pledge of Fair Employment Practices, which are guided by the following five principles:

- Recruit and select employees on the basis of merit (such as skills, experience or ability to perform the job), and regardless of age, race, gender, religion, family status or disability;
- 2. Treat employees fairly and with respect and implement progressive human resource management systems;
- Provide employees with equal opportunity to be considered for training and development based on their strengths and needs, to help them achieve their full potential;
- Reward employees fairly based on their ability, performance, contribution and experience; and
- Abide by labour laws and adopt Tripartite Guidelines which promote fair employment practices.

While there are sectors in our businesses such as offshore and marine, which are traditionally male-dominated globally, our hiring policies ensure that there is equal opportunity given to females across the Group.

Keppel supports re-employability beyond statutory retirement age. Retirees are

offered post-retirement employment opportunities in Keppel in line with the Singapore Tripartite Guidelines on the Re-employment of Older Employees. 205 retirees were re-employed across the Keppel Group of Companies in 2011, and we continue to prepare our older employees for a smooth transition to retirement by organising talks and programmes such as "Senior Mentors at Work" and "Career Coaching for Mature Employees".

#### **PROVISION OF BENEFITS**

Keppel provides comprehensive benefits for employees. We grant full-time employees leave entitlements, medical benefits, group insurance plans, as well as subsidised lodging and transportation, taking into consideration industry practices and market norms.

In 2011, all 60 employees in Singapore who went on maternity leave returned to Keppel. As part of our efforts to encourage working fathers to take on a larger role in caring for their newborns, Keppel provides paternity leave to all male employees in Singapore and countries where practicable.

To acknowledge the commitment of long-serving employees, the Keppel Group of Companies in Singapore awarded Long Service Awards to 540 employees in 2011.

Keppel Corporation Limited Sustainability Report 2011



#### **GLOBAL WORKFORCE**

Distribution by Segment and Gender (%)	

Corporate Office	Male 30.6	Female 69.4
Offshore & Marine	94.1	5.9
Infrastructure	83.9	16.1
Property	59.4	40.6
Overall	88.4	11.6

#### Distribution by Segment and Employment Type (%)

	Permanent	Contract
Corporate Office	89.6	10.4
Offshore & Marine	90.4	9.6
Infrastructure	58.7	41.3
Property	51.0	49.0
Overall	82.0	18.0

#### Distribution by Segment and Professional Category [%]

	Executive	Non- Executive	
Corporate Office	80.9	19.1	
Offshore & Marine	16.0	84.0	
Infrastructure	36.3	63.7	
Property	30.1	69.9	
Overall	20.3	79.7	

#### Distribution by Employment Type and Gender [%]

	Male	Female
Permanent	90.2	9.8
Contract	80.2	19.8

### Empowering Lives People Matter

#### **GLOBAL WORKFORCE**

#### Distribution by Region and Gender (%)

	Male	Female
Americas	94.2	5.8
Asia	76.3	23.7
Europe	82.9	17.1
Middle East	96.9	3.1
Singapore	91.5	8.5

#### Distribution by Age Group (%)

	< 30 years old	30 to 39 years old	40 to 49 years old	50 years and older
Corporate Office	19.1	39.9	17.9	23.1
Offshore & Marine	39.8	30.9	16.6	12.7
Infrastructure	26.4	37.1	21.8	14.7
Property	43.1	32.1	17.7	7.1
Overall	38.7	31.7	17.3	12.3

#### Distribution by Segment and Educational Qualification (%)

	Post- graduate	Bachelor's Degree	Post Secondary/ Pre-U/ Vocational	Secondary	Primary & below				
Corporate Office	11.5	64.2	11.0	13.3	0.0				
Offshore & Marine	1.5	10.4	22.0	38.4	27.7				
Infrastructure	5.3	20.0	36.5	35.3	2.9				
Property	4.7	32.5	20.8	35.7	6.3				
Overall	2.4	14.4	23.4	37.6	22.2				

#### Distribution by Region and Local/Non-local Hires (%)

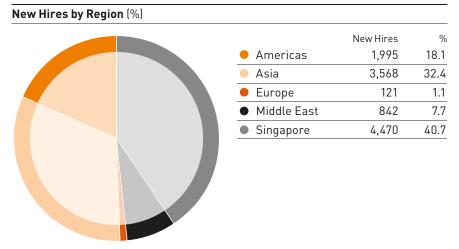
	Local Hires	Foreigners	
Americas	99.7	0.3	
Asia	94.8	5.2	
Europe	81.4	18.6	
Middle East	0.4	99.6	
Singapore	32.1	67.9	
Overall	60.7	39.3	



#### **GLOBAL WORKFORCE**

#### Senior Management Distribution by Region and Local/Non-local Hires [%]

	Local Hires	Foreigners
Americas	42.9	57.1
Asia	42.4	57.6
Europe	80.0	20.0
Middle East	0.0	100.0
Singapore	96.1	3.9
Overall	59.4	40.6



Mr Choo Chiau Beng, CEO of Keppel Corporation, was a recipient of the Award, having dedicated 40 years to Keppel.

In addition, Keppel continues to contribute to its co-operative and unions to help deserving employees to defray the cost of their children's education. The Keppel Group awarded some 290 Bursary Awards and Education Grants in 2011 totalling close to \$150,000.

#### RETIREMENT AND SAVINGS SCHEMES

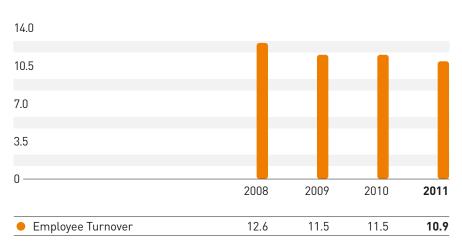
The Central Provident Fund (CPF) is a comprehensive social security savings plan introduced by the Singapore Government to enforce savings by salaried workers to help CPF members work towards a secure retirement.

Over the years, the CPF scheme has evolved to encompass retirement, healthcare, home ownership, family protection and asset enhancement. Under the CPF scheme, Keppel and its employees make monthly contributions to the employees' CPF accounts in accordance with the prevailing regulations.

#### **NURTURING HUMAN CAPITAL**

With people as a core asset, Keppel actively grows the capabilities and competences of our global workforce. We aim to provide training opportunities for our employees to continuously upgrade their skills so as to increase their productivity. In upgrading the skills of our workforce, we provide sustainable

#### Annual Employee Turnover Rate [%]



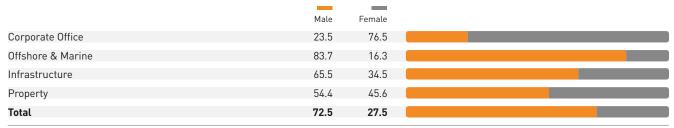
#### **Empowering Lives People Matter**

#### SINGAPORE WORKFORCE

#### Distribution by Ethnic Group [%]

	Chinese	Malay	Indian	Others
Corporate Office	97.4	2.6	0.0	0.0
Offshore & Marine	20.2	6.8	30.0	43.0
Infrastructure	42.3	13.5	24.8	19.4
Property	91.1	5.2	1.3	2.4
Overall	26.2	7.7	28.2	37.9

#### New Hires by Segment and Gender\* (%)



<sup>\*</sup> Executives and above.

#### New Hires by Segment and Age Group\* [%]

	< 30 years old	30 to 39 years old	40 to 49 years old	50 years and older
Corporate Office	47.1	47.1	5.8	0.0
Offshore & Marine	66.3	25.7	4.6	3.4
Infrastructure	35.7	36.3	18.3	9.7
Property	36.7	31.6	24.1	7.6
Overall	51	30.9	11.9	6.2

Executives and above.

employment in the local communities where we operate.

#### **INVESTMENT IN TRAINING**

We invested \$20.5 million in the training and development of our employees globally in 2011. On average, each employee in Singapore receives approximately 62 hours of training, while each permanent employee globally receives 30 hours.

Learning and development programmes are customised for employees across the Group to develop and refine essential skills and competencies. Employees are offered relevant training programmes at different career stages. Industry-related skills training is offered by our business units.

Keppel Offshore & Marine's (Keppel O&M) Modular Training Programme for Management Trainees aims to orientate and prepare trainees to be operationally competent. The trainees undergo classroom and experiential training with job attachments. A total of 125 trainees benefited from the programme in 2011.

Keppel O&M continues to place a strong emphasis on safety training in order to foster a pervasive safety culture. Yard-wide safety training includes Safety Core Competency, Safety Promoter Training, Safety Leadership Training and Confined Space programmes.

Keppel Integrated Engineering (KIE) worked closely with the Singapore Workforce Development Agency (WDA) to offer more training opportunities to employees in 2011 by tapping on the agency's Skills





Development Fund and Skills Redevelopment Programme.

Keppel Land offered a Management Associate (MA) programme to attract promising young graduates to join the company. The two-year programme is structured to equip MAs with the exposure, knowledge and network to embark on a rewarding career with Keppel Land through job rotations, core-training and mentoring programmes. In addition, Keppel Land organised an inaugural Annual Staff Conference (ASC) in April 2011. The event involved more than 350 managers across the group.

#### **INDUCTION OF NEW EMPLOYEES**

Onboarding programmes are conducted for all new hires to ensure that they are successfully integrated into the new workplace environment.

Mentors are assigned to new hires to share institutional knowledge and help them to assimilate quickly. Mentoring@Keppel Workshops were organised for employees across the Group, whereby 55 mentors received formal mentor training in 2011. To date, 600 mentors have been appointed across the Group.

#### **KEPPEL COLLEGE**

Keppel College centralises the Group's programmes for leadership and executive development. It seeks to inculcate in future leaders Keppel's core values, mission and vision, and equip them with networking skills. To date, Keppel College has some 1.000 alumni.

A suite of courses such as the Keppel Group Young Leaders Programme, General Management Programme and Keppel Global Advanced Management Programme are customised for staff in collaboration with reputable business schools and professional training institutions.

Signature programmes conducted by Keppel College in 2011 included the Global Young Leaders Programme and Global General Management Programme developed with Nanyang Business School. Sessions were held for 72 participants from Singapore, Azerbaijan, Brazil, China, India, Mexico, United States, United Kingdom and Vietnam.

Project Management and Sharpening Project & Contract Management

Programmes were conducted for 59 participants from across the Group to hone their project and contract management skills.

Two runs of the Keppel – Outward Bound School Leadership Development Programme were conducted in 2011. To date, 12 runs had been organised for 236 Keppelites from across the Group since 2007.

The Leadership Development Sailing Programme facilitated by Keppel Bay Sailing Academy (KBSA) was introduced to build team bonding and hone Keppelites' leadership skills through an exciting sailing expedition. 29 participants across the Group attended two runs of the programme.

To motivate employees, values-based leadership development workshops were developed and conducted for selected participants in 2011.

Keppel values employees and aims to equip talents with the skills and knowledge to embark on long-term careers with the company.

### Empowering Lives People Matter



#### **KEPPEL YOUNG LEADERS**

Keppel Young Leaders (Keppel YL) was inaugurated in July 2010 to serve as a central platform to cultivate global mindsets, innovativeness and entrepreneurship amongst high-potential employees.

As an offshoot of Keppel's talent and succession management framework, Keppel YL aims to ensure a continuous stream of future leaders for Keppel. Members are given opportunities to champion and participate in high-impact projects and inter business unit assignments beyond their regular job scope.

Keppel YL organises Leadership Series sessions on a monthly basis, inviting CEOs of Keppel business units to share their insights on driving results for the Company.

#### **FURTHER STUDIES**

Since 2004, as part of our Employee Development Scheme, we have sponsored 269 employees from all levels to pursue further studies. Thirty-one employees received this sponsorship in 2011. In Singapore, Keppel provides seven days of study/examination leave annually to encourage staff to pursue further studies.

#### **APPRENTICESHIP**

The Keppel Apprenticeship Scheme is offered across our yards worldwide to equip recruits with skills in welding, piping, fabrication and marine technology. The scheme offers a certified training curriculum that equips the trainees for a spectrum of trades in the offshore and marine industry.

By preparing trainees with essential skills, the Scheme has also helped to enhance the employability of our workforce, and help them to adapt to job demands. Most trainees go on to join Keppel yards upon graduation.

### ATTRACTING AND RETAINING TALENTS

To enhance understanding of employee concerns, Keppel conducts an annual Organisational Climate Survey.
4,234 employees participated in the Group-wide survey in 2011, up from 3,389 in 2010. The overall score for the 13 "drivers of engagement" surveyed was 4.66 out of 6.0, an improvement from the scores of 4.62 in 2010 and 4.47 in 2009. Scores of 3.5 and above denote positive responses.

In 2011, Keppel welcomed more than 10,000 employees to the Group globally,

of which 851 executives were hired in Singapore. Our Singapore operations had a low attrition rate of 8% for new hires as the result of our rigorous selection process as well as onboarding programme.

In 2011, we continued our efforts to attract the best into the Group. We offered scholarships and internships, and participated in recruitment fairs and networking events in collaboration with educational institutions and industry partners.

To showcase the Group, we also organised regular site visits for students. In 2011, we played host to more than 1,200 visitors.

The Keppel Group also partners Singapore's Ministry of Manpower, the Association of Shipbuilding and Marine Industry, and Building and Construction Authority for scholarship awards targeted at outstanding and deserving undergraduates.

Keppel regularly organises activities that encourage employees to adopt healthy lifestyles.

Keppel Corporation Limited
Sustainability Report 2011



### TALENT MANAGEMENT AND SUCCESSION PLANNING

To manage talent in a systematic and structured way, Keppel has in place a framework to develop the topmost tier of high-potential and high-performing employees. Training programmes planned for these talents include overseas assignments, special projects and job rotations.

We recognise succession planning as a vital business imperative and have put in place a rigorous internal process. This succession planning process is closely interlinked with talent management. The synergy between the two frameworks helps to build our pipeline of high-calibre successors over the mid-to-long term.

At the Board and top management levels, we track a set of key performance indicators for both talent management and succession planning. We closely analyse, monitor and take actions based on relevant lead and lag indicators, including but not limited to bench strength, readiness and retention.

#### **REWARDS AND RECOGNITION**

Keppel believes that a pay-forperformance philosophy drives ownership of collective goals, whereby a high-performance culture creates long-term shareholder value. The key guiding principles in the design of Keppel's remuneration are market competitiveness and performance orientation. We have in place a robust performance management system to ensure that all permanent employees receive regular performance and career development reviews. We will continue to review our policies regularly to ensure that we provide employees with a competitive package both in terms of monetary and non-monetary rewards and benefits.

#### **SCHOLARSHIPS**

Generations of young and aspiring individuals have joined Keppel since the inception of our scholarship programme in 1989. To date, we have awarded 184 Keppel Group Scholarships.

In 2011, eight dynamic youths joined the Keppel Group in pursuit of challenging careers with Keppel. The annual Keppel Group Scholarship is an important component of our human capital development strategy. Keppel's history and values will be passed on to each scholar who in turn gains the exciting opportunity to shape its future.

Keppel O&M awarded 15 scholarships in 2011, investing a total of \$233,520 in students' education at Higher NITEC, Diploma and Degree levels.

#### **INTERNSHIPS**

Keppel offers internships for tertiary students who are keen to gain valuable work experience before starting a career with the Group. We offered more than 270 internships to students from both local and overseas institutions in 2011.

#### **EMPLOYEE WELLNESS**

Keppel believes in enhancing the well-being of our employees and promoting healthy lifestyles. Keppel Corporation organises monthly activities that promote employee well-being, such as wellness workshops, free basic health checkups and health food bazaars.

To help employees in Singapore achieve work-life balance, the Keppel Group supported the nationwide annual Eat With your Family Day on 27 May 2011. Employees were encouraged to leave work early to spend quality family time and have a meal with their loved ones.

Individual business units of the Keppel Group also held their own events to encourage a healthy lifestyle.

Keppel FELS organised ACTIVE Day 2011, an initiative by Singapore's Ministry of Health which stands for "All Companies Together In Various Exercises". During the event, more than 2,000 employees took part in an energetic workout led by professional fitness instructors.

KIE Recreation Club organised various activities such as bi-weekly walk-and-

jog sessions, pilates courses and wine appreciation workshops.

Keppel Land held quarterly staff get-together sessions to promote work-life harmony and encourage greater staff interaction. Some 200 employees participated in each of the sessions.

Apart from such activities, healthy snacks and fruits are regularly distributed to all employees to promote healthy dietary habits.

Activities that strengthen familial ties were also planned for employees. During the year, Keppel Corporation organised the Keppel Walk-n-Fun at West Coast Park, where more than 480 employees, including senior management from across the Group enjoyed a nature walk with their families. Keppel Corporation also invited staff to bring their children to work for a day, during which the children were given an insight to their parents' work environment. Keppel Telecommunication & Transportation organised its Family Day at the Bottle Tree Park in Singapore. Activities such as tele-matches and group competitions were organised to encourage teamwork and forge camaraderie.

# 00

### Special Feature: A Home Away from Home

Our workforce in Singapore comprises a sizable number of foreign workers, and Keppel is committed to help them adapt to Singapore.

Keppel Offshore & Marine (Keppel O&M) provides workers with a comprehensive orientation to help ease them into their new working environment.

We encourage open communication. To provide a source of support to our workers, our unions induct them and brief them on their labour rights and privileges.

Orientation programmes include a mandatory Shipyard Safety Instruction Course, as well as core skills training, such as working in confined spaces. The workers are also given English language lessons to equip them with the language proficiency required for living and working in Singapore. Such lessons include basic grammar, conversational English and comprehension skills.

Keppel O&M is the first company in Singapore to provide highly subsidised dormitories for foreign workers. The dormitories are developed and managed by Keppel Housing, a subsidiary under Keppel O&M.

Senior management from Keppel and officers from the Human Resource department visit the dormitories regularly to obtain feedback on ways to improve the residents' living conditions.

To date, Keppel Housing manages five dormitories – Acacia Lodge, Juniper Lodge, Lantana Lodge, Kian Teck Dormitory and Cassia@Penjuru. The fifth lodge, Cassia@Penjuru, opened in 2011.

The dormitories offer modern amenities such as canteens, minimarts, barber shops and wet markets that cater to the daily needs of residents. They are also equipped with a wide range of recreational amenities such as







multi-purpose halls, gymnasiums, basketball courts and computer facilities. Activities such as bazaars and roadshows are organised regularly at these dormitories to encourage harmonious living and team bonding.

#### PROMOTING WELLNESS

Keppel O&M regularly organises activities to engage employees and build camaraderie. For instance, the company organised a family day at the Singapore Discovery Centre in 2011 which was graced by Guest of Honour, Madam Halimah Yacob, Minister of State, Ministry of Community Development, Youth and Sports, and attended by some 18,000 employees and their families.

#### **LENDING A LISTENING EAR**

To improve the mental and emotional health of foreign workers, Keppel Housing introduced a counselling programme for workers in 2011.

Workers in need of a listening ear are able to turn to three full-time welfare officers – a Bangladeshi, a Chinese and an Indian national, or call a 24-hour counselling hotline.

Mr Steven Lee, General Manager of Keppel Housing, said: "The safety and welfare of our foreign workers are important to us. We take a holistic approach to their welfare, and try to promote their mental well-being by offering support services to help them cope with the stresses they may face."

- Keppel 0&M regularly organises activities to engage employees and build camaraderie.
- 2, 3, 4. Keppel is committed to providing a home away from home for foreign workers, with subsidised dormitories and activities that cater to their daily living needs and well-being.

Keppel Corporation Limited Empowering Lives
Sustainability Report 2011 People Matter

## **Community and Society**

Keppel believes that as our communities thrive, we thrive. We engage and nurture communities wherever we are, with the aim of achieving a sustainable future together.

#### **Highlights**

\$5.85 million

Invested in 2011 on social causes.

13,500

Participants from 99 countries and regions benefited from Singapore International Water Week supported by Keppel Corporation.

60

Eco-homes built for needy families in the Philippines.

#### **Focus Areas**



Fulfil the economic potential of local communities through education and skills development.



Advance our industries through the building of knowledge and exchange of ideas.



Care for the community through volunteerism and strategic social investments.

#### **Performance Overview**

#### **WHAT WE SAID IN 2011**

- Champion initiatives that advance economic opportunities of local communities.
- Promote the development of our industries.
- Continue to encourage corporate volunteerism.

#### **WHAT WE DID IN 2011**

- Invested in initiatives that gave deserving students from disadvantaged backgrounds access to education.
- Sponsored and participated in knowledge-building platforms and international conventions.
- Launched new volunteerism initiatives that leverage employees' skills and interests and expanded range of causes supported.

#### WHAT WE PLAN TO DO

- Continue to invest in programmes that contribute to the economic development of the local communities where we operate.
- Continue to promote the development of our industry by sharing best practices.
- Continue to seek out and support worthy causes aligned with Keppel's key thrusts of Sustaining Growth, Empowering Lives and Nurturing Communities.





The principles that underpin our community work are shaped by our belief that our operations should help in the generation of both economic and social capital for the communities where we operate.

Where appropriate, we try to align our community investment activities with local development programmes. In 2011, the Group invested \$5.85 million on social causes.

Keppel Corporation is a corporate member of Singapore Compact, a national non-profit organisation which aims to further the Corporate Social Responsibility (CSR) movement in Singapore. To foster dialogue and collaboration on CSR, Keppel Corporation and Keppel Land jointly sponsored the International Singapore Compact CSR Summit 2011. The event, which was attended by some 400 delegates, comprised plenaries and workshops which explored CSR with regard to investor and shareholder relations, the environment and human capital.

#### **CAPACITY BUILDING**

Keppel operates across different industries in over 30 countries, hiring

a largely local workforce in most regions. With a progressive human resource management system and investments in educational programmes, we aim to contribute to the economic development of the local communities where we operate.

### INVESTING IN THE FUTURE THROUGH EDUCATION

In line with our strategy to empower individuals and uplift communities, Keppel has consistently supported initiatives that give deserving students from economically disadvantaged backgrounds access to a quality education.

In 2011, Keppel Corporation contributed \$1 million to establish the Keppel Bursary at the National University of Singapore (NUS) University Town, providing bursaries to deserving Singaporean students in financial need.

Keppel also contributed \$500,000 towards bursaries, graduate scholarships, a professorship and a Distinguished Visitors Programme initiated by the NUS Faculty of Law. The bursaries benefited six students in Academic Year 2011/2012.

To provide assistance to less privileged students in Singapore, Keppel Corporation contributed \$100,000 to the S R Nathan Education Upliftment Fund. Initiated by the Former President of Singapore, His Excellency S. R. Nathan, the Fund supports the education assistance programmes of four self-help groups in Singapore, namely, the Chinese Development Assistance Council, Yayasan Mendaki, Singapore Indian Development Association and the Eurasian Association.

Education is a key focus area for Keppel Land's community outreach efforts. Keppel Land was a main sponsor of the National Library Board's Book Exchange 2011, an annual event aimed at promoting a reading culture in Singapore. Keppel Land employees and tenants were encouraged to deposit their used books at designated collection points at eight of the Group's office properties. Close to 1,500 used books were collected and donated to underprivileged children.

Keppel Land's Word on Wheels mobile library project in Hanoi, Vietnam, was launched to raise literacy levels in the country's rural areas.

### Special Feature: Laying Firm Foundations

In 2011, the Keppel Group joined hands with the charity organisation, Gawad Kalinga (GK) to develop eco-housing and amenities for the underprivileged in Bauan, a municipality in the province of Batangas, the Philippines. Through its subsidiary Keppel Philippines Marine, Inc. (KPMI), the Group operates two offshore and marine facilities in the Philippines – namely Keppel Batangas Shipyard and Keppel Subic Shipyard.

The Keppel Group donated a total of PHP 10.5 million to the development of Keppel-GK Eco Village and contributed its environmental engineering and management expertise towards the design of the Eco Village.

The Eco Village, which comprises 60 houses, a preschool and a community centre, was built in three phases and completed in May 2012. Now home to 60 needy families, it provides a vibrant living environment for the beneficiaries.

Keppel employees in Singapore were actively involved in raising a portion of the funds for the project, and employees from Keppel Batangas Shipyard volunteered in the building of the homes after work, over weekends and during public holidays.

The local government of Bauan, led by the Mayor of Bauan, Mr Ryanh M. Dolorhad, contributed the land for the project and provided guidance and support to the building process.

The beneficiaries of the Eco Village were also actively involved in the construction process, putting in 1,000 man-hours per family in the development of the Eco Village.

Consistent with the environmental thrust of GK communities, careful measures were taken to preserve and integrate the natural surroundings

with the development. For instance, the mango trees on-site were conserved so that their fruits can be harvested by the residents as a potential source of income. The development also features garden plots for subsistence farming. Eco-friendly practices, such as collecting rainwater for domestic use and making organic fertilisers from biodegradable waste, were also introduced to residents.

Bauan Mayor Dolor commented: "A corporate member of Bauan for more than 35 years, Keppel has worked with the municipal government to initiate and support many social development and environmental initiatives. I commend Keppel and GK for their hard work on Keppel-GK Eco Village, which provides a safe and healthy living environment for 60 needy families. It is heartening to have organisations with a strong sense of citizenry operating in Bauan."

Mr Nelson Yeo, MD (Marine) of Keppel Offshore & Marine, MD of Keppel Shipyard and Chairman of KPMI, shared: "It is with the trust, confidence and support of the authorities as well as our partners, customers and friends in the Philippines that Keppel has been able to grow our operations here. We actively support social development and environmental initiatives, and are glad for the opportunity to join hands with the local government of Bauan

and GK to participate in the meaningful Keppel-GK Eco Village project."

Mr Tony Meloto, founder of GK, shared: "GK strongly believes that together, we can end poverty and build a sustainable future for all. We are glad that GK's framework for community building has the blessings of the Philippine government and is embraced by responsible corporate citizens such as Keppel Group."

Besides the Eco Village project, Keppel Group's other charity projects in Batangas include technical training for out-of-school youths, college scholarships for needy students and coastal clean-up activities. For its community efforts, KPMI received an Outstanding Community Projects Award from the Philippine Economic Zone Authority (PEZA).

- Employees of Keppel Batangas Shipyard volunteer to help build homes in the Keppel-GK Eco Village, a community development programme partly sponsored by Keppel to help underprivileged families.
- 2. The Keppel-GK Eco Village provides a vibrant living environment for 60 needy families.





Keppel Corporation Limited Nurturing Communities
Sustainability Report 2011 Community and Society

### Nurturing Communities Community and Society

Keppel Land is also the main sponsor of the Words on Wheels (WoW) mobile library project in Hanoi, Vietnam, which was launched in March 2011 to raise literacy levels in the country's rural areas.

#### **INDUSTRY ADVANCEMENT**

Through our involvement in knowledgebuilding platforms and international conventions, we support and advance our chosen industries and spur collaboration between stakeholders in these industries.

A founding sponsor of the Singapore International Water Week (SIWW) since its inauguration in 2008, Keppel Corporation showcased the water capabilities and projects of Keppel Integrated Engineering (KIE), its environmental technology and engineering arm at SIWW 2011 (see page 71).

Keppel Corporation also sponsored the Singapore International Energy Week (SIEW) 2011, an annual week-long platform for energy professionals, policy makers and commentators to discuss and share best practices and solutions to shape a new energy landscape. First held in 2008, SIEW is organised by the Singapore Energy Market Authority and facilitates the exchange of ideas and discussions on pertinent energy-related issues, while simultaneously meeting the strategic goal of Singapore in becoming a leading global energy hub.

Through its active involvement in major industry events in 2011, Keppel Offshore & Marine (Keppel O&M) contributed to the knowledge base of its industries.

Keppel 0&M continues to support various academic events which inspire research and discussions on issues relating to the offshore and marine industry. Through long-term initiatives such as the Keppel Professorship at NUS, Keppel 0&M helped to jump-start research programmes and encouraged the development of new offshore technologies. The Keppel Professorship also organises the Keppel Offshore & Marine Lecture series, which bring academics and industry professionals

together to share their insights and experiences. Besides academic events, Keppel 0&M's global network of yards also actively supported trade and industry conventions and exhibitions, by learning and sharing best practices and the latest industry trends and development.

Keppel O&M had a strong presence at the 25th Offshore Technology Conference (OTC) held in Houston, Texas, as well as the first OTC held in Rio de Janeiro, Brazil. Keppel O&M showcased its global yards, technologies and capabilities alongside international oil and gas companies and service providers.

In addition, the company was profiled strongly at Sea Asia 2011, which covered a range of topics including ship finance, technical rules and regulations and the most recent industry developments.

### COMMUNITY INVESTMENTS AND VOLUNTEERISM

Where possible, we align our community investment activities with national and social priorities.

Our overall social investment contribution falls into six broad categories:

- Programmes that advance and improve the well-being of the poor and underprivileged.
- Community development projects that foster social inclusion and equality, and create opportunities for the community to work together towards common social goals.
- Education initiatives including but not limited to scholarships, grants and financial assistance.
- Initiatives that protect and improve the environment, and enhance biodiversity in local landscapes.
- Initiatives that foster and develop interest and appreciation of the arts, culture and sports.
- Healthcare, including medical and scientific research, and the provision of medical facilities and services.

To make a difference in the lives of the disadvantaged, the Keppel Group donated generously to the Community Chest of Singapore, the fund-raising division of the National Council of Social Service.

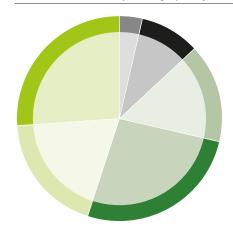




**Keppel Corporation Limited** Sustainability Report 2011



#### Social Investment Spending by Project Type, 2011 (%)



<ul> <li>Care for the Underprivileged</li> </ul>	26.0
Community Development Projects	18.9
<ul> <li>Education Initiatives</li> </ul>	26.4
<ul> <li>Environment Initiatives</li> </ul>	15.5
Arts and Sports Initiatives	9.3
Health Initiatives	3.8

Data note: \$5.85 million invested in social causes in 2011

The Community Chest supports over 300,000 beneficiaries in 219 programmes run by 82 charities. The contributions of Keppel's business units were recognised at the Community Chest Awards Presentation Ceremony in 2011. Keppel FELS was conferred the 5-Year Outstanding SHARE Platinum Award. Keppel Singmarine received the SHARE Platinum Award while

Keppel Logistics and Keppel Shipyard garnered SHARE Gold Awards.

Keppel also leverages its network and group strength in support of worthy causes. At the Keppel Group Charity Golf Tournament 2011, 144 enthusiastic golfers, comprising staff, customers and business associates, took to the greens at the Ria Bintan Golf Resort in Indonesia. Their generous

contributions, coupled with donations by Keppel's business units, enabled the Keppel Group to raise \$360,000 in support of Gawad Kalinga (GK) Indonesia, Singapore Red Cross as well as for education and needy students in Bintan.

#### **KEPPEL VOLUNTEERS**

Keppel encourages its employees to be responsible citizens who are concerned for the well-being of others, especially the less fortunate in society. As such, employee volunteerism is a key thrust of the Group's community engagement programme.

Keppel Volunteers was started in 2000 as a Group-wide volunteer movement. Harnessing the Group's diverse resources, strengths and talents, Keppel Volunteers spearheads activities that make a positive impact on local communities.

Across the Group, employees are given up to two days of paid volunteerism leave each year to participate in activities organised by Keppel Volunteers.

In 2011, Keppel Volunteers launched fresh volunteerism initiatives that leveraged employees' skills and interests, such as handyman work, first-aid and photography, and expanded its range of supported causes to include elderly care, environmental protection, education, and animal welfare.

Keppel Volunteers runs activities in collaboration with Keppel's adopted charity, the Association for Persons with Special Needs (APSN), which comprises five learning institutes, namely Chaoyang School, Katong School, Tanglin School, Delta Senior School and the Centre for Adults (CFA).



- Singapore's President Mr Tony Tan (left) and Mr Tong Chong Heong, CEO of Keppel O&M at the Community Chest Awards Presentation Ceremony, where Keppel FELS was conferred the 5-Year Outstanding SHARE Platinum Award, while Keppel Singmarine garnered the SHARE Platinum Award.
- Keppel Volunteers runs activities with APSN that are tailored to encourage learning and develop the beneficiaries' social skills.

#### Nurturing Communities Community and Society



Keppel believes in playing an active role in the development of the beneficiaries. In line with this philosophy, activities are tailored to encourage learning and develop the beneficiaries' social and life skills, so as to help APSN students assimilate into society.

Activities in 2011 included excursions to the ArtScience Museum; National Day Parade Preview and the Promontory at Marina Bay, among other educational programmes.

Keppel Volunteers supports APSN in its fundraising efforts. Keppel Volunteers regularly organises handicraft and festive bazaars to sell items prepared by APSN beneficiaries at Keppel yards, worksites and offices.

Keppel Volunteers and beneficiaries from APSN took to the streets in a walkathon organised by the Children's Charities Association (CCA). The annual event, which comprises a 1.5 km walk along Orchard Road and a fair, raised funds for more than 75,000 less fortunate children under the care of the CCA's six member charities, including APSN.

Keppel Group supported the National Blood Programme by the Health

Sciences Authority and the Singapore Red Cross to collect sufficient blood to meet the needs of patients in Singapore. For the fourth consecutive year, the Group organised blood donation drives over four days at its worksites across Singapore in 2011, collecting more than 450 packets of blood.

### ENHANCING THE QUALITY OF LIFE OF THE UNDERPRIVILEGED

To bring cheer to needy elderly, and to improve their living conditions, Keppel Volunteers launched home maintenance programmes in Singapore's Toa Payoh and Telok Blangah districts in 2011. The programmes were rolled out in partnership with Toa Payoh and Telok Blangah Moral Senior Activity Centres, and involved monthly cleaning and maintenance of one-room apartments occupied by elderly residents. The donation of new beds and mattresses were also arranged for beneficiaries in need.

In the Philippines, Keppel Batangas Shipyard led the Group's efforts in the development of the Keppel-Gawad Kalinga (GK) Eco Village to house 60 families in need (see pages 64–65). Employees of Keppel Batangas Shipyard also took part in Alay Lakad, an annual initiative to raise funds for out-of-school youths in the Philippines.

In Brazil, Keppel FELS Brasil donated R\$80,000 to the Pestalozzi Association of Angra dos Reis, which aims to promote the treatment and care of those diagnosed with intellectual disability and developmental delays. Employees of Keppel FELS Brasil also helped to brighten the lives of elderly folks by providing a fresh coat of paint to 0 Bem Querer A Casa Do Idoso, an aged care facility in Japuiba, Angra dos Reis.

Keppel Singmarine Brasil has also been extending support to the community. The yard made contributions to a local school, Escola Municipal Izilda Reiser Mafra, to promote community bonding.

In the US, Keppel AmFELS held the seventh edition of its annual charity golf tournament in November, raising US\$50,000 for its adopted charities. Keppel AmFELS also participated in Relay for Life, which raises funds for cancer research and honours cancer survivors, and organised three blood donation drives that saw the participation of over 200 employees.

Keppel Corporation Limited Sustainability Report 2011







### PROMOTING THE ARTS, CULTURE AND SPORTS

Keppel continued its pledge of support for the Clipper 11-12 Round the World Yacht Race, the world's most celebrated amateur sailing race. For the fourth year, Keppel Corporation is Team Sponsor for the Singapore yacht and Official Host Port for the Singapore stopover. Keppel Bay Sailing Academy (KBSA) is also the only accredited training centre for the Clipper Race outside of the UK. KBSA is the first sailing academy in Singapore to provide sailing courses that are accredited by the internationally recognised Royal Yachting Association (RYA) from the UK.

As part of the Group's commitment to nurture talent, three Keppel Ambassadors – Darryl Tai, Celina Chan and Karel Vandegehuchte – were sponsored to crew the Singapore yacht on different race legs. Representing Singapore in the race, they join more than 50 participants from 11 nationalities between the ages of 18 to 67.

To groom young sportsmen into the champions of tomorrow, Keppel Corporation signed an agreement with Singapore Table Tennis Association

(STTA) to provide funding of \$300,000 over three years towards a zone training centre in Clementi. Talented players from Kindergarten Two to Primary Six are currently receiving intensive training at the new Clementi zone, and will have the opportunity to join STTA's Youth Development Squads when they reach Primary Six.

From the classical to the contemporary, from budding artistes to established performers, Keppel's enduring support of the arts reaches out to a myriad of audiences.

Keppel Corporation's sponsorship resulted in a successful collaboration between renowned Singaporean violinist Siow Lee-Chin and USA's acclaimed Oberlin Orchestra, for a debut performance on 6 January 2011 at the Esplanade Concert Hall. Siow is the first Singaporean to teach at the famed Oberlin Conservatory of Music.

Keppel also lent its support to two other great musicians, by sponsoring their performances in Singapore.

The first was the concert of seven-time Grammy Award-winning Brazilian singer, guitarist and songwriter, Gilberto Gil, who has, over 46 years, made an indelible mark in the history of Brazilian popular music. He performed at Esplanade Concert Hall.

The second was the concert of Lebanese master musician Marcel Khalife, who performed at the Yong Siew Toh Conservatory of Music (YSTCM) Concert Hall. Marcel Khalife is one of the Arab world's most celebrated musicians.

Thanks to scholarships from Keppel Corporation, talented young Vietnamese musicians have enlivened the Singapore music scene through their contributions in YSTCM concerts. The Keppel Music Scholarship, established at YSTCM in August 2003, is one of Keppel's many initiatives to engage the community. The Scholarship has funded the training of ten music scholars.

- The Keppel Group supported the National Blood Programme by the Health Sciences Authority and the Singapore Red Cross by organising blood donation drives over four days at its worksites across Singapore.
- . Keppel is the Team Sponsor for the Singapore yacht and the Official Host Port for the Singapore stopover in the Clipper 11–12 Round the World Yacht Race.

### Nurturing Communities Community and Society

In appreciation of Keppel's support of their studies through scholarships, past and present students and friends of the YSTCM at NUS came together in 2011 to perform French chamber music. The concerts were held in both Singapore and Hanoi, and performed by a multi-national ensemble from China, Malaysia, Singapore, and Vietnam.

Keppel's gift has given students at the Conservatory the opportunity to learn from some of the most experienced and world-renowned musicians, who help develop their talent and technical skills.

In support of cultural exchange between Brazil and Singapore, Keppel Offshore & Marine sponsored the first Women's Capoeira Festival in Singapore in 2011. Capoeira is a Brazilian art form that encompasses elements of martial arts, dance and music. Originally an activity for men, it was introduced to women as well, to inspire disadvantaged women and build up their confidence.

#### **ENVIRONMENTAL CONSERVATION**

Despite its small land mass and highly urbanised environment, Singapore is a haven to an amazing variety of wildlife that thrives despite the multiple threats to the island's fragile ecosystem.

As a leading corporate champion of environmental conservation, Keppel Corporation contributed \$250,000 to fund the publication of Singapore Biodiversity, an encyclopedia that represents the first-ever comprehensive guide to nature in Singapore. The book was launched on 18 July 2011. This donation also helped create a special endowment fund in NUS, with matching funds provided by the government. Proceeds from this endowed fund will be used to support NUS' new Bachelor of Environmental Studies degree programme. The valuable compendium of Singapore's diverse biota serves as a definitive educational resource on Singapore's biodiversity.

Development and industrialisation have reportedly led to the loss of 60% of Singapore's original coral reefs. However, Singapore still boasts high bio-diversity with almost 200 species of reef-forming hard corals. This accounts for about 25% of the global total species.

To preserve Singapore's biodiversity and underwater habitats, Keppel Group strongly supported the launch of a coral nursery project in 2007. The nursery is located underwater at a site off Pulau Semakau. Carried out in collaboration with National Parks Board, the National University of Singapore and the National Environmental Agency, the project sought to enhance marine habitats by maximising the survival chances of naturally-occurring corals.

Keppel donated \$250,000 over two years to support the conservation project. Beyond funding, employees from across the Group regularly saw to the maintenance of the coral nursery. which encourages hard coral fragments to grow. The fragments suitable for propagation of coral colonies were then transplanted to coral reefs off the southern coast of Singapore. The introduction of new corals helps to enhance the ecological health of the coral reefs. Volunteer divers helped to clean and transplant the corals once every month. 36 Keppel employees took part in the project, which was completed in 2011.

Keppel continues to support a number of eco-friendly initiatives and encourage its employees to adopt environmentally-friendly habits.

Keppel Philippines Marine, Keppel Subic Shipyard and Keppel Batangas Shipyard worked with Philippines environmental authorities to carry out mangrove planting and convert used oil drums into garbage bins, which were then donated to the community to help ensure a litter-free environment.

To mark World Environment Day, Keppel Land organised an environmental lunch talk with invited speakers including guests from World Wide Fund for Nature (WWF) and The Climate Project. The Company also held a mini eco-bazaar of eco-lifestyle products and recycled items, followed by a guided tour of the Greenmark Platinum award-winning Ocean Financial Centre for over 100 staff, tenants and business associates.

Exhibitions were held at Keppel Land and K-REIT Asia's buildings to raise awareness on climate change and recycling among tenants. An urban butterfly trail walk led by the Nature Society of Singapore was also organised for staff to raise awareness of Singapore's biodiversity.

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### Special Feature: Sustainable Water Solutions



Some 150 million urban dwellers face perennial water shortages today. With growing population and rapid urbanisation, this number is expected to grow to one billion by 2050, and the problem will be further exacerbated by climate change.

The Singapore International Water Week (SIWW) is a global platform for the sharing and co-creation of innovative water solutions, and the event in 2011 brought together global leaders from the public and private sectors as well as academia, to identify governance, business and technological solutions to address common water challenges.

Reflecting the emphasis placed on water management by governments and industries in today's challenging global landscape, SIWW 2011 attracted a record of some 13,500 participants from 99 countries and regions.

A founding sponsor of the SIWW since its inauguration in 2008,

Keppel Corporation showcased the projects of Keppel Integrated Engineering (KIE), its environmental technology and engineering arm at SIWW 2011.

KIE, through its subsidiary Keppel Seghers, offers a complete range of water and thermal technologies for municipal and industrial clients with advanced water solutions that cover the full water cycle, including wastewater treatment, process and drinking water, desalination and water reuse.

Through business forums at the event, Keppel also shared with participants its insights as a provider of environmental solutions.

Mr Choo Chiau Beng, CEO of Keppel Corporation, was the chairperson of the Europe business forum, while BG (NS) Tay Lim Heng, CEO of KIE, was a panelist at the Middle East and North Africa (MENA) business forum roundtable. At Singapore International Water Week, senior management from Keppel briefed Mr Lee Hsien Loong, Prime Minister of Singapore (third from right), and Dr Vivian Balakrishnan, Singapore's Minister for The Environment and Water Resources (extreme left), on KIE's water projects and capabilities.

# Global Reporting Initiative (GRI) Content Index

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References to Keppel Corporation's Annual Report 2010 are expressed as "AR page number". The Annual Report is available on www.kepcorp.com.

GRI Indicator	Description	Disclosure	Reference Page <sup>1</sup>
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### Global Reporting Initiative (GRI) Content Index

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GRI Indicator	Description	Disclosure	Reference Page <sup>1</sup>
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#### Legend

### **GRI Statement**



# Statement GRI Application Level Check

GRI hereby states that **Keppel Corporation Limited** has presented its report "Definitively Keppel" (2011) to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 15 June 2012



Deputy Chief Executive
Global Reporting Initiative



The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 7 June 2012. GRI explicitly excludes the statement being applied to any later changes to such material.

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**Edited and Compiled by**Group Sustainability Working Committee, Keppel Group

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