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### **CENTRESPREAD**

Yard of choice for the Gulf of Mexico 21-24



To commemorate the triple naming ceremony of CANTARELL I, II and III, Mr Chow Yew Yuen (left), CEO of Keppel Offshore & Marine presented a painting of the three KFELS B Class jackup rigs to Mr Ramiro Garza (right), CEO of Grupo R.

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## World's first rig triplets

## The three rigs will bring the total number of KFELS B Class rigs that Keppel has delivered to Mexico to 11.

Keppel FELS is on track to deliver three KFELS B Class jackup rigs to Mexican company, Grupo R, on time, on budget and with a perfect safety record.

The rigs were named at the world's

first triple rig naming ceremony held on 30 May 2015 at Keppel FELS' yard. Mr Chan Chun Sing, Singapore's Minister in Prime Minister's Office and Secretary-General of the National Trades Union Congress was the Guest-of-Honour. Built to Keppel's proprietary KFELS B Class design, the three identical rigs were named CANTARELL I, CANTARELL II and CANTARELL III, after the Cantarell oil field in offshore Mexico. They are the first three of five rigs that Keppel FELS

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Continued from page 3...

is building for Grupo R, and will bring the total number of KFELS B Class rigs that Keppel FELS has delivered to Mexico to 11.

Speaking at the ceremony,
Mr Chan said, "Keppel's
achievement in the naming of
these three rigs underscores
Singapore's capabilities as a
world leader in rig building. To
continually sharpen Singapore's
competitive edge, the Government
will continue to collaborate actively
with the industry in research
and development, productivity
improvements and skills training.

"Singapore is the only country in Southeast Asia that doesn't have any oil in our grounds, yet we have transformed ourselves to be a leading oil rig builder globally. All these is only possible with the bold vision and hard work of our pioneers. What we see today is a celebration of the Keppel Can Do! spirit, which is also part of the Singapore spirit."

Mr Chow Yew Yuen, CEO of Keppel Offshore & Marine, added, "We are pleased to name the first three of five rigs for Grupo R which are on track for a safe and timely delivery. We have reaped synergies from working on five rigs at one time to maximise resources and improve efficiencies in the construction process. This is extremely helpful especially when we will be delivering 15 rigs this year, which is the second highest number of deliveries in a year.



Celebrating the world's first triple rig naming are (first row from left to right) Mr Tong Chong Heong, Senior Advisor, Keppel O&M; Mr Chow Yew Yuen, CEO, Keppel O&M; Mr Loh Chin Hua, CEO, Keppel Corporation and Chairman, Keppel O&M; Lady Sponsor, Mrs Gabriela Garza; Mr Chan Chun Sing, Minister, Prime Minister's Office and Secretary-General, National Trades Union Congress; Lady Sponsor Ms Karla Garza; Lady Sponsor Ms Mariella Garza; Dr Lee Boon Yang, Chairman, Keppel Corporation

"When delivered, the three rigs will bring the total number of KFELS B Class rigs working in Mexico to 11. The KFELS B Class is the dominant rig design in the region, with those already in operation turning out robust, efficient and economical performances for Mexico. Besides two more rigs for Grupo R, we currently also have another two under construction for other Mexican customers."

The KFELS B Class jackup is designed to operate in water depths of up to 400 feet and drill to depths of 30,000 feet. Developed by Keppel's Offshore Technology Development (OTD), the KFELS B Class jackup is equipped with an advanced and fully-automated high capacity rack and pinion jacking system, and Self-Positioning Fixation System. It has accommodation with full amenities for 150 persons.

Mr Ramiro Garza, CEO of Grupo R, said, "In spite of the current low oil price environment, Mexico is focused on finding new resources to increase its oil production in the face of a long-term decline. Our new KFELS B Class jackup rigs are highly efficient with a proven track record. Combined with our expertise and experience, these five rigs - three now and two later – will strengthen our position as the leading drilling contractor in Mexico.

"We have built these rigs with Keppel FELS to ensure costefficiencies in getting customised and high quality products that are able to exceed the expectations of our customers. We look forward to continuing this win-win partnership as we grow our fleet of rigs."

Keppel has delivered projects to Mexico since 2004 when it

was awarded a contract to build two accommodation platforms. Besides building new jackup rigs for Mexico, Keppel has also repaired and serviced a total of 18 rigs that have been deployed in Mexico.

**ON MEXICO** 

In an interview with the media during the naming ceremony, Mr Chow Yew Yuen, CEO of Keppel O&M, said the prospects for growth in Mexico are rosy.

"With the country's energy reform in 2013, Mexico is looking to boost oil and gas exploration and production, which have been in decline for the past 10 years. It has some 70 billion barrels in proven or probable reserves. Even with the current low oil price, the fundamentals of Mexico's offshore oil and gas market looks strong. Industry estimates have put the cost of extraction from Mexico's shallow water fields at less than US\$20 a barrel."

Despite Pemex's recent budget cuts, Mexico still hopes to boost oil production, which has been in decline for the past decade, as a result of drying oil wells. In April this year, the country reiterated its ambition to boost its oil production up to at least three million barrels per day. Production was about 2.33 million barrels per day in April 2015, down from its peak of about 3.5 million barrels per day in 2004.

Mr Chow added, "Mexico's energy reform, which launched in 2013,

allows it to bid out some of the oil blocks and a lot of companies are now bidding for it. We are watching them very closely. Over 30 companies have qualified to bid in the first shallow water blocks on offer."

To maximise their operations in these fields, Mexico's national oil company, PEMEX, has also been renewing its fleet, replacing old rigs with newer, higher specification and more efficient rigs.

## Union of strength



Mr Chan Chun Sing (first row, third from left), Minister, Prime Minister's Office and Secretary General, National Trade Unions Congress, seen here with the Keppel FELS Employees Union and Keppel senior management at the naming ceremony

Strong labour-management relations is a key factor of Keppel's success.

Noting this at the naming ceremony, Guest-of-Honour Mr Chan Chun Sing said, "I am happy to note that Keppel's success is also a result of the strong labour-management relations that have been nurtured over the past 32 years with the union. The trust shared between the company and the union has resulted in high employee morale, a conducive working environment, and increased productivity and quality.

"Every time I visit Keppel, I am struck by the sense of the Keppel family. Employees and management work closely together to ensure everyone's safety and every project is delivered on time and within budget.

"This is only possible with the trust between the union and the management, which is not to be taken for granted. This strong relationship is the result of many years of hard work and requires continuous efforts to ensure we maintain this strong tripartite relationship that will be Singapore's competitive advantage."

## Milestones for Asian Lift

Since it started in 1985, Asian Lift, a joint venture between Keppel Offshore & Marine (Keppel O&M) and Smit Singapore, a member of the Boskalis Group of Companies, has grown from strength to strength. The heavy lifting service provider recently celebrated significant milestones that bear testament to its unparalleled lifting capabilities and robust growth over the years.

## FLEET EXPANSION WITH WORLD'S LARGEST SHEERLEGS

On 15 May 2015, Asian Lift celebrated the naming of Asian Hercules III, which is the largest and most versatile heavy-lift sheerlegs of its kind in the world.

The self-propelled floating sheerlegs can perform single lifts of up to 5,000 tonnes and carry out tandem lifts exceeding 5,000 tonnes with multiple cranes.

Asian Hercules III increases
Asian Lift's fleet size to a total of
5 sheerlegs, which includes the
400-tonne Asian Helping Hand III,
the 1,600-tonne Asian Hercules and
the 3,200-tonne Asian Hercules II,
enabling the company to service
even more complex shipbuilding
and offshore construction projects.

The sheerlegs were built by Keppel Nantong Shipyard, Keppel O&M's yard in Nantong, China, which delivered the crane with a perfect safety record of no lost-time incidents.

Mr Chow Yew Yuen, CEO of Keppel O&M and Chairman of Asian Lift, said, "Asian Hercules III is a



Asian Hercules III, the largest heavy-lift sheerlegs of its kind in the world, can perform single lifts of up to 5.000 tonnes

reflection of how Asian Lift has grown from strength to strength since Keppel and Smit forged a strategic partnership to form the joint venture 30 years ago. Today, Asian Lift is known for its unparalleled lifting capabilities. We are confident that Asian Hercules III will help to broaden Asian Lift's coverage and opportunities beyond its traditional markets to include offshore installations and decommissioning work, and to also further its reach into international markets.

"Keppel O&M will benefit from Asian Lift's expanded capabilities as the company continues to contribute to our quality execution of projects ranging from the construction of high-specification rigs to ship conversions and specialised shipbuilding."

Measuring 106m long and 52m wide with a hook height of at least 120m, Asian Hercules III had taken on its first assignment in Singapore upon delivery earlier this year.

Together with Asian Hercules II, Asian Hercules III had carried out a tandem lift for the 5,400-tonne upper hull of an accommodation semisubmersible that Keppel FELS is constructing.

### THREE DECADES OF EXCELLENCE

To commemorate its 30th anniversary, Asian Lift's board directors, senior management, customers, partners and business associates came together for a night of celebration at Regent Singapore on 30 June 2015.

At the anniversary dinner,
Mr Chow Yew Yuen, CEO of Keppel
O&M and Chairman of Asian Lift,
recounted how Asian Lift started
30 years ago to become a key
development for the offshore
and marine industry in Singapore,
allowing for larger blocks and
modules to be lifted so that marine
construction can be done more
effectively.

Mr Chow said, "Today, Asian Lift, which services customers in the region and beyond, has come to be known for its unparalleled lifting capabilities that provides reliable and quality heavy lifting services to ports, shipyards and major civil projects.

"Our cranes have participated in some major projects around the world...and undertaken a diverse range of projects across different geographical locations – from the installation of the iconic 1,100-tonne Gateshead Millennium Bridge in Newcastle-upon-Tyne in the UK,to the offshore installation of a compression module in East Java, Indonesia."

Mr Frank Verhoeven, Member of the Board of Management of Royal Boskalis Westminster and Board Director of Asian Lift, shared his thoughts on the key factors which have brought Asian Lift to where it is today.

"We need to constantly ask ourselves what is needed to bring our clients the best and most cost effective solutions. If we keep this as our main focus and act on it,

Asian Lift will continue to be the leading service provider in heavy lifting.

"Besides being customer-focused, Asian Lift can draw from the expertise of the joint venture partners which have a wealth of knowledge from over 150 years of history and experience. With this synergistic partnership, more customer value can be created."

During the event, Mr John Chua, GM of Asian Lift, presented a donation cheque to the Samaritans of Singapore, a non-profit organisation whose mission is to provide a lifeline to anyone in crisis. This is the third year that Asian Lift has given its support to the organisation.



As part of its anniversary celebrations, Asian Lift organised a golf game during the morning of 30 June 2015 for its clients, partners and business associates. Present at the games were (from left to right) Mr Sander Bikkers, Director, Transport & Marine Services, Dockwise; Mr Chow Yew Yuen, CEO, Keppel O&M, and Chairman, Asian Lift; Professor Anthony Teo; Mr Choo Chiau Beng, Senior Advisor to Keppel Corporation



Celebrating Asian Lift's three decades of excellence at its anniversary dinner are (from right to left) Mr Keith Teo, General Manager (Marketing), Keppel FELS; Mr Abu Bakar, MD, Keppel Singmarine; Mr Michael Chia, MD (Marine & Technology), Keppel O&M; Mr John Chua, General Manager, Asian Lift; Mr Choo Chiau Beng, Senior Advisor to Keppel Corporation; Mr Chow Yew Yuen, CEO, Keppel O&M, and Chairman, Asian Lift; Mr Frank Verhoeven, Member, Board of Management of Boskalis; Ms Lee Sook Fung, General Manager, Smit Singapore; Mr Chor How Jat, MD, Keppel Shipyard, and Board Director, Asian Lift; Mr Wong Ngiam Jih, CFO, Keppel O&M; and Mr Jan Wolter Oosterhuis, Regional Director Asia & Australia, Boskalis

## Successful launch of ice-class

On 15 May 2015, Keppel Singmarine successfully and safely launched the ice-class multipurpose duty rescue vessel that it is constructing for Bumi Armada. Following the launch, commissioning and sea trials will be conducted before the vessel is delivered in 3Q 2015.

The multipurpose duty rescue vessel is one of three ice-class vessels that Keppel Singmarine has been contracted by Bumi Armada to build. The other two are supply vessels that Keppel Nantong Shipyard, a shipyard of Keppel Offshore & Marine located in Nantong, China, is building.

The two supply vessels were launched earlier in March 2015 safely and ahead of schedule.



Project teams from Keppel Singmarine and Bumi Armada, as well as surveyors from the appointed classification society, celebrate the successful launch of the ice-class multipurpose duty rescue vessel

## Seaways' tug underway

Keppel Singmarine achieved a significant milestone when it laid the keel on 16 June 2015 for a multi-purpose Anchor Handling Tug (AHT) vessel that the shipyard is building for Seaways International (Seaways). The keel laying ceremony was conducted in the presence of Keppel and Seaways management and project teams, as well as vendors and subcontractors.

Suitable for an array of offshore activities, the AHT vessel will have a designed bollard pull of more than 100 tonnes, and will be equipped with Class 1 and 2 fire-fighting capabilities, dynamic positioning systems Class 2, oil recovery Class I capabilities and a host of other equipment.

When completed in 2Q 2016, this vessel will be the fifth AHT unit that Keppel Singmarine has built for Seaways.



Celebrating the keel laying milestone for the AHT vessel (from left to right) are Mr Abu Bakar, MD, Keppel Singmarine; Deepu S.L., Manager (New Builds), Seaways International; Siah Poh Chiang, Project Manager, Keppel Singmarine and Mr Arun Varma, Director, Seaways International

## Strong track record in Brazil

As a testament to its ability to execute projects with excellence, BrasFELS, Keppel Offshore & Marine's shipyard in Angra dos Reis, Brazil, recently delivered a project to its client's satisfaction and won a new repair job from a longstanding customer.



BrasFELS has delivered FPSO Cidade de Itaguai MV26 (vessel on the left) safely and ahead of schedule to MTOPS

"The successful execution of the FPSO Cidade de Itaguai MV26 project is another milestone in the partnership between BrasFELS and MTOPS. We are glad to have the continued support of repeat customers as this is the best testament to our commitment to safe, on-time, on-budget and quality deliveries."

Mr Kwok Kai Choong CEO and President Keppel FELS Brasil and BrasFELS

## **QUALITY DELIVERY**

BrasFELS demonstrated its commitment to quality, safe and timely execution with the recent delivery of the Floating Production Storage and Offloading (FPSO) vessel Cidade de Itaguai MV26 to MODEC and Toyo Offshore Production Systems Pte Ltd (MTOPS).

BrasFELS delivered the project ahead of schedule and with an excellent safety record. This is the yard's third FPSO project for MTOPS, a joint venture between MODEC, Inc. and Toyo Engineering Corporation.

BrasFELS undertook module installation and integration for FPSO Cidade de Itaguai MV26.

Mr Kwok Kai Choong, CEO and President of Keppel FELS Brasil and BrasFELS, said, "The successful execution of the FPSO Cidade de Itaguai MV26 project is another milestone in the partnership between BrasFELS and MTOPS. We are glad to have the continued support of repeat customers as this is the best testament to our commitment to safe, on-time, on-budget and quality deliveries.

"Over the years, BrasFELS has grown its capabilities for FPSO conversion as well as module fabrication and integration. FPSO Cidade de Itaguai MV26 is BrasFELS' fifth FPSO project in five years, and all the projects were completed safely and ahead of schedule. We look forward to supporting the

Brazilian offshore market with more of such projects."

### **NEW REPAIR PROJECT**

BrasFELS also has a robust track record in repair and upgrading projects.

Continuing the strong relationship between Keppel and Ensco, the latter's semisubmersible rig, ENSCO 6002, arrived at BrasFELS for repair works in May 2015. The rig is expected to leave the yard in 3Q 2015.

Since 2007, BrasFELS has undertaken 50 repair and upgrading projects for Brazilian and international customers including Ensco, Diamond, Noble Drilling, QGOG, Aban Offshore, McDermott and Transocean.

## Completing mission impossible

## Stena Clyde gets new lease of life in double guick time.

The work on the semisubmersible drilling rig, Stena Clyde, which in normal circumstances would require at least a few months, was completed by Keppel FELS in less than one month and delivered to long-standing customer Stena Drilling, so that the rig could be mobilised for work in offshore Australia as scheduled.

It seemed like mission impossible when Stena Drilling first approached Keppel FELS with the fast track project to install a new helideck as well as two blisters on Stena Clyde.

In addition to the deadline of the rig's drilling programme, it would take two to three weeks for the rig to be towed from Singapore to Australia, leaving the yard with only about five weeks to complete the job.

Yet, the yard was committed to respond to the needs of its customer and harnessed every ounce of its Can Do! mentality to meet the challenging task ahead.

To build a helideck from scratch and meet the deadline was not feasible so the yard sourced for an existing helideck instead. However, the installation of the helideck and its associated structures added over 100 tonnes to the weight of the rig, which then required for two forward blisters to be installed to balance the rig.

The team from Keppel FELS worked round-the-clock to design and commence pre-fabrication in just over a week in what would have normally taken a couple of months. In fact, the team took a calculated risk to procure the blister material even before any engineering drawings had even been produced.

When Stena Clyde arrived in Keppel FELS on 28 April 2015, the truss for the helideck was only partially completed while the blisters and platform of the helideck were in loose material form. In addition, the accommodation had to be taken apart to access bulk heads and ceilings to install major steel reinforcements.

The project teams of Stena Drilling and Keppel FELS were running at full speed to complete the work required.

Within three weeks from the first project meeting, Keppel FELS had designed, fabricated and lifted the two blisters into position. After the installation of the two blisters, the helideck truss was lifted onboard and subsequently the helideck's platform. Four heavy lifts were done in less than a week.

Installation works of the helideck was safely completed, with over 100 tonnes of steel added, on 23 May 2015, 11 days ahead of schedule.

Mr Loe Hauw Sheong, Assistant General Manager (Operations), Keppel FELS shared, "We were

able to pull off this technically demanding feat only because of the strong teamwork with Stena Drilling, and the Can Do! spirit exhibited by everyone on the project. We had to be creative, always vigilant so that we could execute to perfection."

The achievement of the project was also detailed in Stena's inhouse publication, Flowline. It read, "Mission accomplished, Eleven Days ahead of yard contract delivery, and over 100 tonnes of steel added.

"The helideck scope of work was completed on 23rd May. The hard work, team work and dedication from all parties involved in this project paid off. This project would have never taken off, if it had not been for the long and trusted relationship between Stena Drilling and Keppel FELS. The Keppel FELS teams from management down through the ranks are commended on their performance and commitment, making this project the success it was."

Earlier in the year, Stena Clyde docked at Keppel FELS for its five-yearly special periodic survey (SPS). The rig departed on 23 February 2015 upon the successful completion of its SPS, which included mooring winch system replacements and lifesaving equipment upgrade.

## **ROUND-THE-CLOCK WORK ON STENA CLYDE**



10 May 2015: Within three weeks from the first project meeting on 22 April 2015, Keppel FELS had designed, fabricated and lifted into position the two blisters



11 May 2015: After the installation of the two blisters, the Helideck Truss was lifted onboard



23 May 2015: Following the successful installation of the helideck and the earlier completion of its five-yearly special periodic survey (SPS), Stena Clyde leaves Singapore with a new lease of life

## Early delivery of Ensco's DS-9

Besides being the global leader in the design and construction of offshore rigs, Keppel FELS is also well sought after for repair and modification projects.

On 30 April 2015, Ensco's ultradeepwater drillship DS-9 arrived in Keppel FELS to undergo upgrade and modification works. Equipped to drill to 40,000ft deep, the drillship came from a shipyard in Korea for further upgrading.

The work scope includes the installation of a Managed Pressure Drilling (MPD) package to enhance drilling efficiency, as well as a Mud Cutting Dryer system that improves drilling waste management. For safer underwater interface monitoring, Remotely Operated

Underwater Vehicles (ROV) were added to the drillship. Other rig enhancement works, including the installation of a Mud Logging Unit, which improves the overall safety and functionality of the drillship were also carried out.

Prior to the commencement of the job, the project team from Keppel FELS, embarked on a detailed rig survey with numerous hours spent on technical work scopes clarifications with key stakeholders in March 2015.

Advanced planning and close collaboration between Keppel FELS and Ensco allowed for the DS-9 modification project to be successfully completed two days ahead of the compact 45-day schedule on 12 June 2015.

Mr Loe Hauw Sheong, Assistant General Manager, Operations, Keppel FELS said, "To meet the drilling requirements for operations in different regions, we work closely with our customers to provide customised solutions and value-added services. Over the years, we have gained the trust of international drilling contractors like Ensco and we will continue to ensure that our deliveries are safe and timely."

Earlier in 2012, Ensco's DS-6 drillship was also in Keppel FELS for upgrading works, which included an improvement to the blow-out preventer and controls, modifications to the accommodations and the installation of a 30-tonne winch.



# New sheen of pride for Ocean Monarch



Diamond Offshore's semisubmersible drilling rig, Ocean Monarch, was onboard a heavy lift vessel, Dockwise White Marlin, for lower hull cleaning from 16 to 23 June 2015

On 16 June 2015, Diamond Offshore's semisubmersible drilling rig, Ocean Monarch arrived in Keppel FELS for lower hull cleaning.

Taking the size and weight of the rig into consideration, the project team came up with the solution of having Ocean Monarch seated on a heavy lift vessel, Dockwise White Marlin, moored at Keppel FELS quayside so that the job can be carried out safely and efficiently.

With strong teamwork, the project was completed two days ahead of

schedule and departed
Keppel FELS on 23 June 2015.
Keppel FELS was awarded
US\$50,000 by Diamond Offshore as
a Shipyard Performance Bonus for
a timely and safe delivery.

A repeat customer of Keppel O&M, Diamond Offshore has worked with Keppel for more than a decade and had previously upgraded semisubmersible rigs, including Ocean Voyager, Ocean Baroness, Ocean Rover, Ocean Endeavour and Ocean Monarch, with Keppel O&M.

## **HSE** sharing worldwide

To ensure that we maintain high safety standards across our network of yards worldwide, Keppel Offshore & Marine's (Keppel O&M) Health, Safety and Environment (HSE) team conducts regular safety sharing sessions.

On 23 and 24 June 2015, Mr Yong Chee Min, Director (HSE & Special Projects), Keppel O&M conducted safety workshops for Keppel Nantong's management, employees and sub-contractors. Covering a range of topics, including findings from Keppel O&M's HSE cross audit, as well as an analysis of root causes from workplace incidents in Keppel O&M's yards, the workshop

saw over 230 participants in attendance.

Mr Yong shared, "With more than 30,000 Keppelites in our yards worldwide, it is crucial that communication channels between our yards remain open and

active. Such safety workshops are important as they provide a platform for the HSE personnel in Singapore to guide, support and align safety standards. By sharing our safety programmes and messages, we can learn from one another's best practices."



To strengthen Keppel Nantong's safety culture, Mr Yong Chee Min (centre in blue), Director (HSE & Special Projects), Keppel O&M conducted safety workshops for the yard's management and subcontractors.

## Safety: Our core value

With safety as a core value, Keppel Offshore & Marine (Keppel O&M) is committed to improving our safety practices through active participation in seminars and conferences, as well as safety promotional campaigns.

### **REAFFIRMING COMMITMENT**

To reaffirm the goals of 'Safety Excellence 2020', Nakilat-Keppel Offshore & Marine (N-KOM) organised a Safety Excellence Day on 15 June 2015. 'Safety Excellence 2020' was introduced in 2014 to steer the shipyard towards achieving an incident and injuryfree work environment by 2020. The event, which was attended by over 150 Keppelites, customers and stakeholders, showcased the efforts that have been implemented in the past year to take the company a step closer to its safety vision.

Mr Chandru Rajwani, CEO of N-KOM, also announced a slew of new safety initiatives, which include a training programme to enhance the knowledge and skills of engineers in the enforcement of yard safety regulations.

A three-day safety carnival was also held to raise awareness

on High Impact Risk Activities amongst the workforce and to strengthen their knowledge of the right safety gear and equipment to use for different tasks and working environments.

Since the launch of 'Safety Excellence 2020', N-KOM has seen an improvement in its lost-timeincident (LTI) rate, which currently stands at zero for 2015, despite higher man-hours from a greater volume of repair work and offshore construction carried out this year.

### **SHARING BEST PRACTICE**

The Keppel O&M HSE team in Singapore was invited by two organisations to share about the company's safety practices in April 2015.

During the annual Air Defence and Operations Command Safety Forum organised by the Republic of Singapore Air Force on 13 April 2015, Mr Chin Sze Kiong, HSE Manager, Keppel Shipyard, gave a talk on Keppel O&M's safety management system, as well as the company's programmes and initiatives to strengthen safety culture.

On 22 April 2015, Keppel O&M hosted a delegation from SIA **Engineering Company who wanted** to know more about Keppel O&M's multi-pronged approach to safety. Mr Colin Ng, Senior HSE Officer, Keppel FELS, presented on Keppel O&M's safety enhancement strategies, which include strong commitment towards HSE by the company's leadership, structured training programmes, as well as HSE promotional campaigns. It was a fruitful discussion for both companies who were able to learn from each other's approach towards safety.



The Keppel O&M HSE team, led by Mr Yong Chee Min (third from right), Director (HSE & Special Projects), engaged in a fruitful discussion on safety best practices with a delegation from SIA **Engineering Company (SIAEC)** 



Mr Chandru Rajwani (fifth from right), CEO of N-KOM, and employees of N-KOM pledged their robust commitment to safety during the yard's Safety Excellence Day

# First to combust emulsified 0.10% sulphur gas-oil without additives





Dr Jerry Ng (right in the left photo), Founder and CEO, Blue Ocean Solutions (BOS), celebrating the successful installation of BOS Emulsified Fuel System on Diamond S Shipping's tanker, MT Agean Wave (main engine room seen in the right photo), with Diamond S Shipping and Korean Register of Shipping

Keppel Offshore & Marine's subsidiary, Blue Ocean Solutions (BOS), has become the first company in the world to offer an Emulsified Fuel System (EFS) solution that does not require chemical additives for vessels to burn emulsified Marine Gas Oil (MGO) with 0.10% sulphur content. This comes after the requirement for vessels to burn only fuel oil with no more than 0.10% sulphur content in designated sulphur emission control areas (SECA) kicked in on 1 January 2015.

MT Agean Wave, a tanker owned by Diamond S Shipping, is one of the first two vessels in the world to run on emulsified 0.10% sulphur MGO after being installed with BOS EFS – achieving fuel efficiency while complying with the International Maritime Organisation's (IMO) latest regulation in SECA at the same time. Diamond S Shipping has so far installed the system on two of its tankers, with both vessels achieving more than 2% savings in fuel.

BOS' EFS solution is a proprietary technology that can ensure fuel savings of 2-5% while cutting down on nitrogen oxides emissions. This is a significant achievement as the burning of emulsified MGO in marine diesel engines has never been done before without using chemical additives as a stabiliser since MGO and water separate out quickly.

The key innovation of BOS EFS is a patented emulsifier which has a close-loop system that recirculates unconsumed fuel so that it can be re-emulsified for combustion. In this close-loop system, the water and fuel oil are prevented from separating and does not require chemical additives.

The system has been gaining traction, with more and more vessel owners showing confidence and interest in investing in such a system, especially since it does not lead to any downtime to operations during the installation stage. Although fuel oil prices have dropped substantially, fuel cost still constitutes about 30% of the operating costs for vessels, which continues to make fuel savings using BOS EFS compelling.

Apart from tankers, BOS EFS has also been installed in a diverse range of vessels, including container ships, car carriers, bulk carriers and cruise ships. To date, BOS EFS has been installed in about 10 ships, with 10 more currently undergoing installation.

## Strengthening networks

BrasFELS, Keppel Offshore & Marine (Keppel O&M)'s shipyard in Angra dos Reis, Rio de Janeiro, Brazil, hosted visits by government and industry delegations to share more about Keppel and its operations in Brazil.

### **GOVERNMENT DIALOGUE**

Mr Eduardo Braga, Brazil's Minister of Mines and Energy, visited BrasFELS on 22 May 2015 to learn about the history and the contributions of the yard to Brazil's offshore and marine and energy industries.

Accompanying Minister Braga were government and industry representatives including Federal Congressmen Mr Luiz Sérgio Nóbrega de Oliveira and Mr Fernando Jordão, Electrical **Energy Secretary Mr Ildo Wilson** Grudtner, President of Electrobras Mr Jose da Costa Carvalho Neto, and Mayor of Angra dos Reis Madam Conceição Rabha.

The delegation was received by Keppel management led by Mr Kwok Kai Choong, CEO and President of Keppel FELS Brasil and BrasFELS.

### **CUSTOMER ENGAGEMENT**

On 10 June 2015, BrasFELS, together with its customer Modec and Toyo Offshore Production Systems (MTOPS), hosted a visit by Shell representatives. MTOPS is a joint venture between MODEC, Inc. and Toyo Engineering Corporation.

During the yard tour, the Shell delegation took a closer look at some projects, including the Floating Production Storage and Offloading (FPSO) vessel Cidade de Itaguai MV26. The vessel is the third FPSO collaboration between BrasFELS and MTOPS.

Keppel Shipyard, another Keppel O&M subsidiary, is currently undertaking an FPSO conversion for Shell. Earlier in the year, a Shell delegation led by its Chairman Mr Chad Holliday visited the shipyard in Singapore.

### **AGENCY EXCHANGES**

A Singapore government delegation which was in Rio de Janeiro for a study visit was received by BrasFELS management on 8 June 2015. The delegation, led by Mr Lim Chee Hwee, Senior Director of Programmes, Municipal Services Office, learned more about Keppel O&M's experience of operating in Brazil, as well as the group's Near Market, Near Customer strategy of setting up a global network of yards.

### **TECHNOLOGY INSIGHTS**

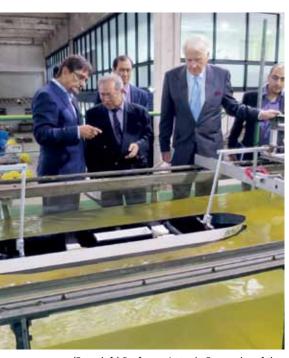
A Keppel Technology Advisory Panel (KTAP) delegation led by its Chairman Mr Sven Ullring and comprising Professor Chan Eng Soon and Mr Charles Foo, Director/ Advisor of Keppel Offshore & Marine Technology Centre, made a study visit to the Federal University



Mr Kwok Kai Choong (fourth from left), CEO and President, Keppel FELS Brasil and BrasFELS, and Mr Low Tiau Tong (extreme left), Special Duties Director, BrasFELS, hosted a visit by Mr Eduardo Braga (fourth from right), Brazil's Minister of Mines and Energy. Accompanying the Minister here were Federal Congressman Mr Luiz Sérgio Nóbrega de Oliveira (second from left); Councilman of Angra dos Reis Mr Chapinha do Sindicato (third from left); (third from right to extreme right) Mayor of Angra dos Reis Madam Conceição Rabha; Councilman of Angra dos Reis and President of the City Council Mr Marco Aurélio Andrade; and Federal Congressman Mr Fernando Jordão



Led by Mr Kwok Kai Choong (fourth from right), CEO and President of Keppel FELS Brasil and BrasFELS, the yard's management, together with its customer MTOPS, showed Shell representatives around the yard during a visit on 10 June 2015



(From left) Professor Antonio Fernandes of the Federal University of Rio de Janeiro, together with KTAP members Mr Charles Foo, Professor Chan Eng Soon and KTAP Chairman Mr Sven Ullring, touring a laboratory at the university

of Rio de Janeiro (UFRJ) and University of São Paulo (USP) on 5 May and 7 May 2015 respectively.

Receiving the KTAP delegation at UFRJ was Professor Antonio Fernandes of COPPE/UFRJ. COPPE refers to the Alberto Luiz Coimbra Institute of Graduate Studies and Engineering Research.

At UFRJ, the delegates visited a lab affiliated with fKN, a consortium formed by FloaTEC, Keppel Offshore & Marine and the National University of Singapore, and learnt about its work through technical and research presentations and demonstrations.

In São Paulo, the delegation was joined by KTAP member Professor

Kazuo Nishimoto, who is based in USP, and who helped to host the visit at the university in São Paulo.

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

Over the years, KTAP members have contributed to a broad range of ideas and developments in Keppel. The areas include drilling and production technology, offshore wind, coal gasification, waste-to-energy, as well as potentially disruptive technologies.

## Yard outreach

## Keppel Nantong and Keppel Subic Shipyard hosted visits in May.

From government agencies to service providers in the maritime and offshore industry, Keppel Offshore & Marine maintains strong ties with its stakeholders through regular interaction and exchanges.

**ABS IN NANTONG** 

To foster closer working relations with the classification society, Keppel Nantong Shipyard hosted a visit by a management team from American Bureau of Shipping (ABS), led by Mr Tony Nassif, **Executive Vice President & Chief** Operating Officer, on 26 May 2015. Led by Mr Edmund Lek, President, Keppel Nantong Shipyard, the management team gave an overview of the operations of the yard and conducted a tour of its key facilities.

Given the emphasis that both **Keppel Nantong Shipyard and ABS** place on safety, the tour included a visit to the safety training centre where the ABS visitors gained a deeper understanding of the yard's safety programme and initiatives.

The exchange on safety included a training session conducted on the next day for the shipyard's management team and contractors conducted by Duncan Peart, Assistant Chief Surveyor, ABS (Greater China Division), during which he shared safety best practices that can be adopted at the shipyard.

### **IE SINGAPORE IN SUBIC**

A delegation from International Enterprise (IE) Singapore,

comprising its board members and senior management, visited Keppel Subic Shipyard (Keppel Subic), one of two yards owned by Keppel Offshore & Marine in the Philippines, on 8 May 2015. The site visit was part of IE Singapore's visit to the Philippines.

The delegation, led by its Chairman, Mr Seah Moon Ming, toured the yard. During the visit, the delegation learnt about Keppel's experience of operating in the Philippines, as well as the yard's facilities, which included the 1,500-tonne gantry crane, the biggest of its kind in the country.



The Keppel Nantong Shipyard management team, led by President Mr Edmund Lek (fifth from right), hosted a visit by ABS management including Executive Vice President and Chief Operating Officer Mr Tony Nassif (fifth from left) on 26 May 2015



A delegation from IE Singapore led by its Board Chairman Mr Seah Moon Ming (seventh from left) visited Keppel Subic Shipyard as part of the agency's visit to the Philippines in early May

## **Key appointments**



Mr Ong Leng Yeow Chris

As part of its ongoing efforts to bolster its management team, Keppel Offshore & Marine (Keppel O&M) announced a number of new appointments on 26 June 2015.

Mr Ong Leng Yeow Chris assumed the role of Deputy Managing Director, Keppel FELS. As Deputy MD, he will continue to oversee the commercial-related departments, while taking on the added responsibilities of leading the Engineering department as well as Project Management.

Mr Ong's preceding appointments in Keppel FELS include Executive Director (Commercial), Acting Executive Director (Operations) and General Manager (Engineering) where he oversaw the various aspects of the business in the respective departments.

Mr Jeffery Shiu Chow has been appointed Director (Legal),



Mr Jeffery Shiu Chow

Keppel O&M. He began his career at Keppel FELS as Administrative Manager in 1990, and has led the Legal department of Keppel FELS and Keppel O&M before his eventual appointment as General Manager (Legal), Keppel O&M in 2011.

Dr Lee Chay Hoon will assume the role of Director (Organisation Development & Human Resources), Keppel O&M. As Director of Organisation Development and Human Resources, Dr Lee is responsible for the people management and development strategy of Keppel O&M. Prior to this, Dr Lee has been General Manager of Keppel O&M's Organisation Development department since she joined Keppel in 2007.

Other notable appointments include Mr Kenneth Chong Yun Kien who will be taking up the role of General Manager



Dr Lee Chay Hoon

(Legal), Keppel O&M. His responsibilities include the provision of general legal advice and services to the company's business.

Mr Ang Ting Yang has been appointed as General Manager (Corporate Development), Keppel O&M. Mr Ang was formerly the Senior Manager of Corporate Development at Keppel Corporation from early 2010 before moving to Keppel O&M in 2014 as Assistant General Manager (Corporate Development).

Mr Goh Han Bin Max assumed the role of General Manager (Operations), Keppel FELS.
Since he started his career as a Management Trainee with Keppel FELS in 2004, Mr Goh has held a number of appointments, including Mechanical & System Manager (Piping) and Deputy Shipyard Manager.

## Showcase in Azerbaijan

While the construction of Azerbaijan's most modern semisubmersible rig is underway at Keppel's subsidiary, Caspian Shipyard Company (CSC), a miniature model of it was on display at the 22nd Caspian Oil and Gas exhibition, the largest event in the energy sector in the Caspian Region where key leaders from the industry meet. CSC is Keppel Offshore & Marine's shipyard in Baku, Azerbaijan.

The semisubmersible is being built to Keppel's DSS™ 38M design for Caspian Drilling Company (CDC), a subsidiary of the State Oil Company of Azerbaijan (SOCAR).

During the exhibition held in Baku, Azerbaijan, from 2 to 5 June 2015, President of Azerbaijan, Ilham Aliyev, stopped by the rig model on display at CDC's booth and was updated on the rig's smooth construction progress, which was 58% completed as at end May 2015. The pontoons, bracings and columns have been integrated and welded, with four out of 10 upper hull blocks successfully erected.

With the rig expected to be completed and delivered by December 2016, President Aliyev said he was very pleased that an ultra-modern sixth generation rig is being built in Azerbaijan and expressed for more of such rigs to be built in the country.

The DSS<sup>™</sup> 38M rig is the most advanced semisubmersible to be built in the Caspian region and has been designed for the



President of Azerbaijan, Mr Ilham Aliyev (extreme left), was briefed on the progress of the country's most modern semi by (from second from left to right) General Director of Caspian Drilling Company, Mr Farid Akhundov, President of State Oil Company of Azerbaijan, Mr Rovnag Adbullayev, and CEO of Caspian Shipyard Company, Mr Lau Kuat Pin

operational environment of the Caspian Sea. Equipped with 20,000 PSI BOP ready technology, which was initiated by CDC, the rig will be the first shallow water semisubmersible able to perform drilling and expand the areas of operation in the oil fields of Azerbaijan.

A representative of Caspian Drilling Company said, "As part of Caspian Drilling Company's objective to be one of the world's leading drilling contractors, having one of the first semi-submersible drilling rigs that has the capability to be equipped with a 20,000PSI BOP allows us to be in a position to support the future drilling operations planned for the Caspian Sea. Using the Keppel Deepwater Technology Group and Gusto-Marine Structure Consultants DSS<sup>TM</sup> 38M design, Caspian Drilling Company and Keppel FELS were able to easily incorporate modifications during the engineering phase where minimal works will be required to install a future 20,000PSI BOP system."



Established since 1990, Keppel AmFELS extends its solid track record with multiple projects in the yard

## Yard of choice for the Gulf of Mexico

Keppel AmFELS, Keppel's yard in Brownsville, Texas, has been bustling with activity as it received a number of new projects in its yard and undertook upgrades that have significantly improved the yard's capabilities and productivity.

### **BUSTLING WITH PROJECTS**

First built by Keppel AmFELS in 2002, the Q4000 semisubmersible (semi) recently returned to the yard in April 2015.

The Q4000 arrived at Keppel AmFELS for a few repairs and to service its eight thrusters. This required the semi to be docked on the yard's floating dry dock. The replacement of thrusters include two bow thrusters, two retractable thrusters amidships and four stern

thrusters used for propulsion and station keeping.

Work on the semi also included the inspection and painting of four sea chests as well as the inspection, repair and testing of all the sea valves.

The upgrade and repairs were successfully completed and Q4000 sailed off on 31 May.

Another ongoing project at the yard is the construction of a fifth jackup rig for Perforadora Central. Built to the KFELS B Class design, work on the rig is progressing safely on track towards an early 2Q 2016 delivery. Current work includes the commissioning of the jacking system with the rig due to be

launched from the launch way in September 2015.

Long-standing customer
Noble Drilling has contracted
Keppel AmFELS to upgrade the
semi Noble Paul Romano for its
future deployment in the Gulf
of Mexico. The yard's job scope
includes removing equipment such
as the bow crane, living quarters,
helideck and lifeboat davits from
another semi, the Noble Jim
Thompson, and reinstalling them
on the Noble Paul Romano. Work is
expected to complete by 3Q 2015.

## EQUIPPED FOR GREATER CAPABILITIES AND EFFICIENCY

The Port of Brownsville is looking at deepening the channel which would allow Deep Draft Semis to transit the channel.

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## CENTRESPREAD

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The yard leveraged its floating dry dock and floating crane to undertake thruster repairs and replacements on the Q4000 semi

Mr Simon Lee, President of Keppel AmFELS said, "The proposed deepening of the channel will certainly be beneficial to our customers as it will allow deep draft semis to be able to come to our yard for work. Our yard has a floating dry dock with a lifting capacity of 37,000 LT (long tonnes) and capability to dry dock a wide variety of offshore rigs including semis, jackups and ships.

"These upgrades enable us to service the deep draft semi market and provide our customers with more value-added services and faster turn-around times."

A 70ft x 450ft x 450ft deep hole in front of Keppel AmFELS' dry dock enables the yard to undertake underwater thruster removal and installation as well as trial and commission a vessel's thrusters prior to entering the Gulf of Mexico. Inclining test for semis can also be done in the deep hole.

## Robotic 2D/3D plasma cutting machine

A recent addition to the yard's production equipment is the Steel Pro 900 robotic 2D / 3D plasma cutting machine. The device is designed to cut various sized beams and plate into precise sections. The efficiency of the machine in cutting a beam as compared to a regular bed type plasma cutter is approximately 15 times faster.

### **Additional shelters**

The addition of 26 mobile covers to shelter the work areas from the sun and the rain has also significantly improved the yard's production environment. A delay due to the weather can jeopardise delivery dates. The timely introduction will help to protect



With the Steel Pro 900 2D/3D plasma cutting machine, one person is able to complete in 20 minutes what takes a crew of two approximately five hours for the same job



The specially designed domes for the outside assembly areas provides shelter from rain or shine to improve productivity

against the effects of El Nino, which brings plenty of rain to the region every few years.

### Floating crane

Another key equipment in the yard is the Atlantic Giant, a floating crane. As the hull of the crane wore out, a new hull was manufactured within the yard, giving the Atlantic Giant a new lease of life in 2014. The crane has a capacity of 700 tonnes (large hook) with an 80 tonne whip line (small hook).

## Floating dry dock

The floating dry dock, Solomon P. Ortiz, enabled the yard to undertake the smooth thruster removal on the Q4000. Acquired in 1998, the extra wide dry dock is able to accommodate drilling rigs. The dry dock's mooring system is designed to withstand up to 110 mph winds with a 12' tidal surge (with a full capacity vessel on dock).

### **Manitowoc 21000 Crane**

Adding to the lifting capabilities of Keppel AmFELS is the Manitowoc 21000 Crane which has a 1000 tonne lifting capacity and a reach of 640 feet. The Manitowoc 21000 has provided the yard with enough lifting capacity to lift derricks in two sections completely outfitted as well as lift entire BOP's from the quay side to the precise location on semis.

## **Systems certified**

The high Quality, Health,
Safety and Environment (QHSE)
management standards of the
Keppel AmFELS yard in Brownsville,
Texas, have been certified by
DNV (Det Norske Veritas), a leading
international provider of assurance
and certification services.

The certificates for ISO 9001 Quality, ISO 14001 Environmental and OHSAS 18001 Occupational Health & Safety were received in a ceremony at the Offshore Technology Conference (OTC) in Houston on 4 May 2015.

Mr Simon Lee said, "Over the years, we have steadily improved our systems in the yard. Applying for these three prestigious certifications is an affirmation and recognition of our QHSE management systems and we are committed to maintain these high standards."

Continually innovating to improve safety, the yard is utilising technology to enhance communication such as having an online mobile phone notification system to update all relevant personnel on work stoppages or delays and ensure that proper measures are being taken to correct the issues.

In addition, the Keppel AmFELS Safety Awareness Program has the participation of customers in its weekly safety meetings where employee wellbeing is emphasised and a token of appreciation is given to employees for their HSE performance.

## DEVELOPING A STRONG WORKFORCE

Besides being well equipped, the yard also constantly develops its workforce to maximise their potential. It recently launched its 2015-2016 Leadership Development Program (LDP) geared to empower all



Keppel AmFELS certified by DNV (Det Norske Veritas) for ISO 9001 Quality, ISO 14001 Environmental and OHSAS 18001 Occupational Health & Safety

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supervisory personnel with leadership skills.

To attract young talent, an Operational Leadership Training Programme has been designed to enroll qualified graduates from local colleges and universities to begin a career path at Keppel AmFELS. The two year development programme exposes each trainee to a wide spectrum of business operations. At the latest intake, after a stringent selection process, 11 candidates were successful out of 75 applicants.

### **HONOURING LONG SERVICE**

Over 1500 Keppelites were present during Keppel AmFELS' Independence Day Observation and Service Awards Ceremony on 2 July 2015. In the course of the event, 33 employees were honoured for achieving service milestones ranging from five to twenty-five years and were presented with a crystal plaque, an award gift and a certificate of recognition.

Among the top achievers were Project Superintendent, Mr Jose Isaac Hernandez, and Production Supervisor, Mr Zacarias Selvera, who celebrated 25 years of dedication to Keppel AmFELS. Gracing the event was the Honorable Senator Eddie Lucio Jr. of Texas, who commended the long service award employees and also declared Keppel AmFELS as "number one in Texas!"

## **Congressional visit**

U.S. Congressional Representative, Mr Filemon Vela and five of his colleagues from Congress visited the Keppel AmFELS yard in the Rio Grande Valley, in Brownsville Texas to learn more about the company and the region on 20 February 2015.

The delegation was given an insight into the yard's projects, operations, organisation and productivity initiatives.

As part of the visit, they toured

a completed oil rig bound for the Gulf of Mexico, where Keppel AmFELS employees explained the importance of the channel deepening project.

Accompanying Mr Vela were U.S. Congressional Representatives, Mr Bill Pascrell, of the 9th District of New Jersey, Mr Dave Loebsack, of the 2nd District of Iowa, Mr Matt Cartwright, of the 17th District of Pennsylvania, Mr Tim Walz, of the 1st District of Minnesota, and Mr Rick Nolan, of the 8th District of Minnesota.

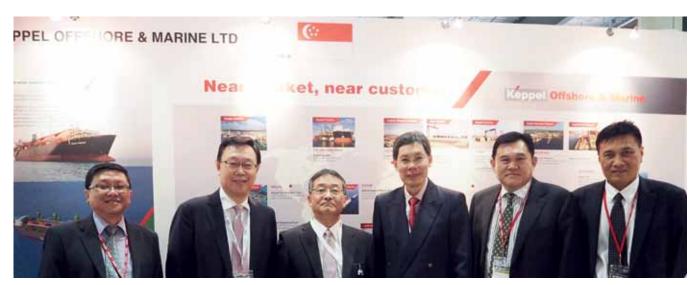


Congressman, Mr Filemon Vela, (fifth from left) accompanied by five U.S. Congressional Representatives on a tour of Keppel AmFELS



Mr Eddie Lucio Jr. (first, row, third from left), Texas State Senator, and Mr Simon Lee (first row, fourth from left), President of Keppel AmFELS, together with Mr Eduardo A. Campirano (first row, second from right), Port Director and CEO for the Port of Brownsville, celebrating America's Independence Day and the employees of Keppel AmFELS

## **Networking in Norway**



Singapore's Minister for Transport and Second Minister for Defence Mr Lui Tuck Yew (third from right) and Mr Hiroshi Muto (third from left), Japan's Vice Minister for Transport, Tourism and International Affairs, were hosted at Keppel O&M's booth at Nor-Shipping 2015 by Keppel O&M senior management comprising (L-R) Mr Louis Chow, ED (Commercial), Keppel Shipyard; Mr Michael Chia, MD (Marine & Technology), Keppel O&M; Mr Chor How Jat, MD, Keppel Shipyard; and Mr Abu Bakar, MD, Keppel Singmarine

Keppel Offshore & Marine (Keppel O&M) touched base with customers and industry partners and explored the future of the global maritime industry together at the Nor-Shipping Conference and Exhibition (Nor-Shipping) held in Oslo, Norway, from 1 to 5 June 2015.

Featuring insightful conference and dialogues, extensive networking opportunities and an exhibition of the best and latest in maritime technology and solutions, the biennial event drew leading global offshore and marine players.

At the Singapore Pavilion of the exhibition, Keppel O&M helped to promote the country's maritime industry through a showcase of its broad-ranging capabilities and services.

Singapore's Minister for Transport and Second Minister for Defence Mr Lui Tuck Yew officially opened



Singapore's Minister for Transport and Second Minister for Defence Mr Lui Tuck Yew (centre) opening the Singapore Pavilion at Nor-Shipping 2015

the Singapore Pavilion, which was coordinated by Singapore Maritime Foundation (SMF) and Association of Singapore Marine Industries, and supported by Maritime Port Authority of Singapore and International Enterprise Singapore.

SMF also held a Singapore Nite Reception on 3 June 2015, which allowed participants in the Singapore Pavilion and Norwaybased Singaporeans to network over Singaporean cuisine. Nor-Shipping 2015 marks the 50th anniversary of the event which had an expanded programme this year to celebrate the occasion.

New initiatives included Brazil@

Nor-Shipping, which focused on the risks and rewards of doing business in Brazil, and the Women@Nor-Shipping Waves of Change Conference, which focused on women who set the agenda in the leadership and future of the maritime industry.









Customers, partners and friends catching up at Keppel's party (from L-R in each photo): 1. Mr Carl Trowell, CEO, Ensco; Mr Loh Chin Hua, CEO, Keppel Corporation and Chairman, Keppel O&M; Mr Tong Chong Heong, Senior Advisor, Keppel O&M; 2. Mr Frederik Smidth, Chief Technical Officer, Maersk Drilling; Mr Morten Poulsen, Technical Director, Maersk Drilling; Mr Choo Chiau Beng Senior Advisor, Keppel Corporation; Mr Harold Linssen, MD, Keppel Verolme; 3. Ms Wang Look Fung, Director, Group Corporate Affairs, Keppel Corporation; Mr Chow Yew Yuen, CEO, Keppel O&M; Mr David Williams, Chairman, President & CEO, Noble Corporation; Ms Julie Robertson, Executive Vice President & Corporate Secretary, Noble Corporation; Mr Choo Chiau Beng; Mr Jonathan Fairbanks, Partner and Co-founder, Global Energy Capital; 4. Mr Wong Kok Seng, MD, Keppel O&M (Offshore) and Keppel FELS; Mr Luong Van Cuong, Director of PVD Logging, PV Drilling, Mr Pham Tien Dung, President & CEO, PV Drilling

## Strong camaraderie in OTC Houston

A highlight of the annual Offshore Technology Conference (OTC) in Houston, Texas, USA, is Keppel Offshore & Marine's (Keppel O&M) cocktail reception, where the company's senior management meets with customers and partners from oil and gas companies, drilling and production operators, classification societies and key equipment providers.

Held on 5 May 2015 at the Westin Galleria, Keppel O&M's reception at OTC 2015 drew about a thousand guests together to network, talk business and renew friendships.

Guests also learned more about Keppel O&M's businesses through the display panels and product models on exhibit. These included updates on the company's yards in Brazil and Texas as well as its latest technological offerings such as Liftboats, Plug and Abandonment jackup rigs and Floating Liquefaction Vessels.

Founded in 1969, OTC is one of the world's largest oil and gas conferences.

OTC 2015 saw more than 94,700 attendees from 130 countries gather to advance knowledge for the safe and sustainable development of offshore oil and gas resources.



5. Mr Chor How Jat, MD, Keppel Shipyard; Mr Curtis Lohr, Project Manager, Projects & Technology, Shell International Exploration and Production; 6. Mr Abu Bakar Mohd Nor, MD, Keppel Singmarine; Mr Jorge Villalpando, Perforadora Central; Mr Chow Yew Yuen; Mr Patricio Alvarez Morphy, General-Director, Perforadora Central; 7. Professor Chow Yean Khow, ED, Maritime Institute@National University Singapore; Mr Choo Chiau Beng; Mr N. Pharr Smith, Senior Vice President, Operations Support, Rowan Companies; 8. Mr Loh Chin Hua; Mr Takashi Nishino, Executive Managing Officer, MODEC; 9. Mr Tong Chong Heong; Mr Alan Quintero, Senior Vice President, Operations West, Transocean; 10. Mr Wong Kok Seng; Mr Ramiro Garza Vargas, CEO, Grupo R; Mr Chow Yew Yuen; 11. Mr Louis Chow, ED, Commercial, Keppel Shipyard; Mr Stein Rasmussen, MD Houston, SBM Offshore; 12. Mr Chow Yew Yuen; Mr Geir Ove Eikill, Vice President, Mobile New Builds, Statoil; 13. Mr Keith Teo, GM, Marketing, Keppel FELS; Mr Toshiki Abe, Deputy GM, Japan Drilling Company; Mr Chris Ong, ED, Commercial, Keppel FELS

## Promoting industry growth



Mr Chow Yew Yuen, CEO of Keppel O&M, has been elected President of the Association of Singapore Marine Industries Council

Members of the Association of **Singapore Marine Industries** (ASMI) have elected Mr Chow Yew Yuen, CEO of Keppel Offshore & Marine (Keppel O&M), as the new President of the 15-member ASMI Council. Mr Chow joined the ASMI Council as an elected Vice President in June 2011.

As the Council's President, Mr Chow will continue to work towards promoting the offshore and marine industry and bringing its members closer together for stronger ties, better cooperation and a greater sense of belonging.

ASMI is a non-profit trade association formed in 1968 to promote the interests of the marine industry in Singapore. It represents a wide cross-section of the Singapore ship repair, shipbuilding and rig building industry.

Engaging trade associations is one of many ways that Keppel O&M actively contributes to the growth of the industry. Other ways include sponsorships, collaborations, scholarships and the promotion of welfare for industry workers.

## **Telling the Singapore Maritime story**

An active contributor to the growth of Singapore's maritime industry, Keppel Offshore & Marine (Keppel O&M) is the Gold sponsor of a documentary that the Maritime and Port Authority of Singapore (MPA) and Singapore Shipping Association have commissioned National Geographic to produce in conjunction with Singapore's 50th birthday celebrations in 2015.

The documentary, Inside Maritime Singapore, aims to capture the growth and success of Singapore's maritime industry while offering a glimpse into its future.

Given the significant presence of the offshore industry in Singapore, the documentary includes a dedicated offshore segment which prominently features Keppel O&M.

Inside Maritime Singapore premiered on 30 June 2015 on the National Geographic channel in Southeast Asia and Hong Kong.



Keppel O&M is featured in a National Geographic documentary

## Strong union partnership



Celebrating Keppel FELS' wins at the May Day Awards were (first row, from fourth from left to right) Mr Chow Yew Yuen, CEO, Keppel O&M; Mr Vincent Ho, President, KFEU; Mr Tharman Shanmugaratnam, Deputy Prime Minister and Minister for Finance; Mdm Halimah Yacob, Speaker of Parliament and NTUC Advisor for International Affairs; Mr Wong Kok Seng, MD of Keppel Offshore & Marine (Offshore) and Keppel FELS; Mr Chan Chun Sing, Secretary-General, NTUC and Minister, Prime Minister's Office and Ms Atyyah Hassan, General Secretary, KFEU

To develop a motivated and productive workforce, Keppel O&M actively engages our unions. Our efforts in cultivating a close union relationship has been recognised by awards and accolades over the years.

## RECOGNITION FOR STRONG UNION TIES

For making significant contributions towards promoting good industrial relations and enhancing workers' welfare, Mr Wong Kok Seng, MD of Keppel Offshore & Marine (Offshore) and Keppel FELS, received a Medal of Commendation at the May Day Awards organised by the National Trades Union Congress (NTUC) held at Orchid Country Club on 29 April 2015.

Vincent Ho Mun Choong, Senior Draftsman, Keppel FELS, was also conferred the Comrade of Labour Award for his active contributions as President of the Keppel FELS Employees Union (KFEU). To develop a motivated and productive workforce, Keppel Offshore & Marine makes a consistent effort to actively engage the unions and maintain strong relations through regular dialogue and other interaction sessions.

### **MODEL EMPLOYEES**

Two Keppelites from Keppel Singmarine, Than Soe Oo, a supervisor in the Machinery Department, and Hossain Shahadat, a worker in the Hull Department, and one Keppelite from Keppel Shipyard, Ang Hong Siong, an electrician, were conferred May Day Model Partnership Awards organised by the National Trades Union Congress (NTUC) on 23 May 2015.

They were among 62 individuals, 44 companies and 173 partners receiving recognition for championing the spirit of teamwork and work excellence at the annual NTUC May Day Model Partnership Awards.



Hossain Shahadat (third from left) from Keppel Singmarine receiving the May Day Model Partnership award from Mr Chan Chun Sing (third from right), Secretary-General of NTUC. The presentation was witnessed by Mr David Loh (extreme left), GM (Operations) of Keppel Singmarine, and Mr Razali Bin Maulod (second from left), President of Keppel Employees Union

Mr David Loh, GM (Operations), Keppel Singmarine, who was at the ceremony to support the Keppel Singmarine awardees, said, "Soe Oo and Shahadat are exemplary employees who have worked hard for the betterment of the company and the co-workers around them. I am happy that their hard work has been recognised."

## Thriving through innovation



During his opening address, Keppel Corporation CEO and Keppel O&M Chairman, Mr Loh Chin Hua exhorted Keppelites to sharpen their innovative edge and remain hungry in seeking out ways to advance Keppel's businesses

"Think big, start small, act fast."
With this call to arms, Mr Loh Chin
Hua, CEO of Keppel Corporation,
kicked off the inaugural Keppel
Innovation Convention 2015.
Held on 15 June 2015 at Keppel
Leadership Institute, the event was
conceived as an annual platform
to foster an innovative culture and
recognise outstanding innovations
across the Group.

The convention also aims to encourage Keppelites to exchange best practices and embrace new ideas and methodologies, thereby driving higher productivity while ensuring the profitable, safe and responsible execution of the Group's businesses.

About 150 participants were present, comprising board directors, senior management and Keppelites.

### **PLANTING WHILE HARVESTING**

Mr Loh said in his opening address, "We need channels for ideas, big and small, status quo-preserving or disruptive, to surface and be noticed...We have a chance to develop an innovation ecosystem that runs alongside our existing profit generating businesses. It is akin to planting seeds as you harvest."

Drawing inspiration from a recent conference he attended in Seattle, USA, with many CEOs of tech start-ups, Mr Loh exhorted Keppelites to emulate the grit and gumption of Silicon Valley entrepreneurs in pushing forth ideas. "Simple ideas can grow into commercial hits in response to real, unmet needs. Never underestimate a simple idea that questions the status quo."

### **SPURRING ON COMPETITION**

The innovation competition, the main component of the convention, attracted 58 entries from various business units as well as Keppel Corporation, underscoring the importance of innovation not only to business operations, but also to how the Group is led and managed.

Besides entries from business units in Singapore, teams from the Group's operations in other countries including Belgium, Brazil, China, the Philippines, Qatar and Vietnam, joined in the fray.

Cognizant that innovation takes many forms, the organisers designed the competition to have three categories – Realised Innovation, Early-Stage Innovation and Productivity Gems.

"We have a chance to develop an innovation ecosystem that runs alongside our existing profitgenerating businesses. It is akin to planting seeds as you harvest."

Mr Loh Chin Hua CEO, Keppel Corporation and Chairman, Keppel O&M



Project teams from Keppel O&M presented various innovation ideas to the panel of judges

The first category, Realised Innovation, was for projects that have significantly added value to Keppel's products, processes, service quality or business models. The second, Early-Stage Innovation, was for projects that are still in the design, detailed engineering or prototyping stage. Lastly, Productivity Gems was for incremental or small-scale projects that have improved productivity, or raised the quality of existing products or services.

With innovation as one of Keppel's hallmarks, Mr Loh challenged Keppelites to sharpen their dynamic edge and remain hungry in seeking out ways to advance Keppel's businesses. "We need a healthy sense of insecurity regarding existing businesses that are already doing well. Big innovation may look contrarian, or even foolish at first. Eventually, however, the best ideas generate huge returns."

## **INNOVATION CONVENTION 2015 KEPPEL O&M WINNERS**

Category	Business unit	Project name	
Realised innovation*	1. Keppel FELS	B Class Jackup 2013	
	2. Keppel Shipyard	Conversion of the Golar Hilli LNGC to a Golar Hilli FLNGV	
	3. Keppel FELS (BrasFELS)	FPSO Cidade de Mangaratiba – flare tower lifting	
	Keppel Shipyard (special mention)	Keppel safety training centre	
Early-stage innovation*	1. Keppel FELS	Arctic jackup	
	2. Keppel FELS	CAN DO drillship	
Productivity gems	Keppel FELS	CAN DO barge	
	Keppel Shipyard	Automated blasting system	
	Keppel Shipyard	Universal lock-out tag-out system	
	Keppel Shipyard	Vacuum-packed electrode	
	Keppel Nantong Shipyard	Panel line mobile platform	
	Keppel Singmarine	6 Axis robotic welding	
	Keppel Singmarine	Auto-welding carriage for erection joint welding with quantum lift	
	Keppel Singmarine	MPS automated fabrication process	
	Keppel Singmarine	SAW 1G welding innovation for flat and curved plate joining	
	Keppel Singmarine	SM3D piping support	
*Only Popliced Innovation and Early Stage Innovation winners were ranked			

<sup>\*</sup>Only Realised Innovation and Early-Stage Innovation winners were ranked

## Ace students

## Keppelites on study programmes excel.



Mr Chow Yew Yuen (second from right), CEO of Keppel O&M, sharing a proud moment with Xiao Kun (extreme left), Somnath Das (second from left) and John Kartigan (extreme right) at their Graduation Ceremony at Ngee Ann Polytechnic on 23 May 2015

As part of its people development strategy, Keppel Offshore & Marine (Keppel O&M) readily provides opportunities and support to employees for continuous growth and realisation of their full potential.

O&M Newsletter speaks to four individuals who, encouraged by the company and colleagues, recently completed or will soon complete their further studies with excellent achievements, proving themselves to be outstanding both at school and the workplace.

## FINDING SUCCESS IN SINGAPORE

Juggling a full-time job and parttime diploma studies is no mean feat. Undeterred, Somnath Das, a Shipwright Supervisor at Keppel Shipyard, and Xiao Kun, a Piping Technician at Keppel Shipyard, hit the books whenever they had a chance in their free time. Das, 30, hails from India while Xiao, 29, is from China.

Their diligence ultimately paid off. Somnath and Xiao Kun graduated as the top student in their respective engineering courses in Ngee Ann Polytechnic. Somnath achieved a perfect Grade Point Average (GPA) for his Diploma in Marine Engineering course while Xiao Kun obtained his Diploma in Mechanical Engineering with a GPA of 3.9 out of 4. For graduating top of their cohorts, Somnath and Xiao Kun each received a \$200 book prize.

To attain such stellar results, both Keppelites spent six to 10 hours a week studying, completing assignments or revising for exams in their dormitories at Acacia Lodge. This was on top of their thrice-weekly night classes that spanned three hours per session.

Somnath, who left his hometown in India to join Keppel five years ago, shared, "Since my studies were sponsored by the company, I did not want to let the organisation or my supervisors down. I challenged myself to maintain my grades throughout the course of my studies.

"It was a pretty stressful two and a half years of working and studying at the same time, but I am thankful to have very supportive roommates who encouraged me and accommodated me in little ways, such as by lowering the volume of the television whenever I was revising."

Xiao Kun left China eight years ago to embark on a career with Keppel. Wanting to upgrade himself so that he could take on more roles and responsibilities, he enrolled in a diploma course which he paid for himself.

He shared, "I believe that learning never stops no matter how old you are. To advance in our careers, we have to keep seeking new knowledge. I am glad to have successfully completed my diploma and plan to study either Mechanical Engineering or Naval Architecture in a local university in Singapore."

### **LOCAL BOYS ACE THEIR COURSE**

John Kartigan, a Superintendent from Keppel FELS, is a Keppel O&M scholarship recipient with plenty of reason for cheer. Not only did the 29-year-old graduate with a Marine Engineering Diploma from Ngee Ann Polytechnic with commendable grades, he also got married, purchased a house and became a father in the two and a half years he took to complete his studies.

Recounting his hectic days as a part-time student, John chuckled as he shared, "There were a number of very busy periods

as many assignment deadlines coincided with project deliveries. I studied whenever I could find the time, such as during lunch breaks. I even studied in the hospital when my wife was in labour!"

Presently leading a team of as many as 20, John has come a long way since he first started out as a Technical Associate with Keppel O&M five years ago. "When I joined Keppel in 2010, I was totally new to the industry and was not sure if I could rise up to the challenge. Thankfully, I had very supportive supervisors who not only mentored me in my work, but also encouraged me to take up further studies."

Beyond excelling academically and performing well at work, Mercado Aldrich Gail Deposoy, a Technical Associate (Machinery) from Keppel Singmarine, has been recognised with the Lee Kuan Yew Model Trainee Award for outstanding conduct and leadership.

The 23-year-old Singaporean, who is currently pursuing a Higher National Institute of Technical Education (ITE) Certification (NITEC) course in Marine & Offshore Technology under the Technical Associate Scheme with Keppel O&M, was selected from over 500 trainees for the award, which was presented at the ITE Student Achievers' Awards Ceremony on 28 May 2015.



Mercado Aldrich Gail Deposoy (right), Technical Associate (Machinery), Keppel Singmarine, receiving the Lee Kuan Yew Model Trainee Award at the ITE Student Achievers' Awards Ceremony from Mr Bruce Poh (left), Director & CEO of ITE

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"I believe that learning never stops no matter how old you are. To advance in our careers, we have to keep seeking new knowledge."

Xiao Kun, Piping Technician, Keppel Shipyard

"To be able to work in a huge company like Keppel O&M is a great first career step for me and I want to do my best so that I make my family proud."

Mercado Aldrich Gail Deposoy, Technical Associate (Machinery), Keppel Singmarine

The award recognises NITEC and Higher NITEC trainees for their outstanding leadership qualities or exemplary personal attributes.

Noticing that some of his classmates had more difficulty following the mathematics lessons due to their weaker foundations in the subject, Mercado decided to set up a study group. The group met thrice a week on weeknights to revise, discuss problems and solve challenges in assignments.

"My greatest satisfaction is seeing the big improvements that my classmates have shown in their studies over time," Mercado shared.

Scheduled to complete his Higher NITEC course in October 2015, Mercado is determined to achieve good results to do his family proud.

He shared, "My father, who is also working in the marine industry as a lead engineer, has been a huge inspiration for me. He used to share stories about his daily work at the yard which sparked my

interest in the offshore and marine industry. To be able to work in a huge company like Keppel O&M is a great first career step for me and I want to do my best so that I make my family proud."

Mr Chow Yew Yuen, CEO of Keppel O&M, had a tea session with the four outstanding Keppelites on 29 May 2015 to learn more about their work and study journey. Mr Chow said, "Despite a heavy workload, these four Keppelites managed to do exceedingly well in school and have definitely exemplified our Can Do! spirit. Their hunger for knowledge and desire to improve themselves are traits we can all learn from."



Chatting over tea, the four outstanding Keppelites shared their work and study journey with Mr Chow Yew Yuen (centre in blue), CEO of Keppel O&M

## Lasting legacy at KRC

## President of KRC hands over the reins.



Mr Hoe Eng Hock, MD (Special Projects), Marine Division, Keppel Offshore & Marine, has been a dedicated President of Keppelite Recreation Club since 2010

With a belief in the power of recreational activities to bring people together outside of the workplace, Mr Hoe Eng Hock, MD (Special Projects), Marine Division, Keppel Offshore & Marine, devoted considerable energy to doing just that as President of Keppelite Recreation Club (KRC) for the past six years.

Mr Hoe has passed the torch to Mr Lim Tow Fok, GM of Property Management and Knowledge Management at Keppel Land.

## **IGNITING WITH PASSION**

In his three terms as President since 2010, Mr Hoe was passion personified as he led efforts to unite Keppelites through sports and recreational activities. These activities ranged from outings to local fish farms to overseas excursions to Cambodia, Vietnam, Korea, Hong Kong and hikes to mountains in Malaysia and Taiwan. Throughout the varying activities over the years, the man at the helm remained constant with his strong spirit and steady words of encouragement.

Under his leadership, KRC strengthened its expertise in organising sporting events, which enabled the club to successfully take over the responsibility of organising Keppel's annual Group-wide sports meet,

Keppel Games, four years ago from Keppel Scholars.

Mr Hoe shared, "Through such recreational activities, you can see the bonds between the participants strengthen right before your eyes even within a short period of time. Teamwork and synergy amongst Keppelites at work as well as at play, coupled with healthy competition, is the reason for the establishment of KRC. With the continued support of top management and the firm commitment from our sub-committees across the business units, KRC will continue to scale greater heights."

## K-Star Search finds a winner!



Muhd Hafiz bin Senin of Keppel FELS (second from right), was crowned Keppel's first-ever K-Star at the K-Star Search Final Showdown on 19 June 2015. CEO of Keppel Corporation Mr Loh Chin Hua (extreme right), presented Hafiz with a trophy and a cheque of \$5,000, in the presence of judges Benjamin Kheng (extreme left), frontman of local band The Sam Willows, and veteran awardwinning singer-songwriter Jimmy Ye (second from left)

The first-ever K-Star Search a Keppel Group-wide singing competition organised by Keppelite Recreation Club culminated in a final showdown on 19 June 2015 at The Star Performing Arts Centre.

Over 1,200 Keppelites from across the business units, together with families and friends of the contestants, turned up in full force with their clappers, banners (some of which even lit up!) and fan paraphernalia to support the 11 semifinalists.

Lending glamour to the event were local celebrities such as the hosts. comedians Chua Enlai and Patricia Mok, who had the audience in stitches with their banter and jokes

in English, Mandarin and even Hokkien.

The Sam Willows frontman Benjamin Kheng, artiste Tabitha Nauser – the singer behind the 28th Southeast Asian Games theme song – and veteran award-winning singer-songwriter Jimmy Ye were the judges for the evening.

Cheers from adoring fans filled the auditorium as the contestants unleashed star power of their own, belting out songs which showcased their incredible vocal ranges, honed through professional training under renowned vocal coach Chen Peter.

Md Lugman bin Mohdari from Keppel FELS enthralled the

audience with his suave vocals and prowess on the guitar, performing jaunty acoustic renditions of popular hits. Lugman, who has his own YouTube channel, eventually came in first-runner up.

But the brightest glow was to be found in the smile on the face of Keppel FELS' Muhd Hafiz bin Senin when he was crowned the first ever K-Star for his winning combination of powerful vocals, confident stage presence and unbridled star quality.

Cheering on from the front row with his wife was Mr Loh Chin Hua, CEO of Keppel Corporation. Singing the contestants' praises, he said "From the performances tonight, the passion of our Keppelites is evident. We can also see, from how the audience cheered, the tremendous support that they gave to their colleagues.

"One of the goals of Keppelite Recreation Club is to promote the spirit of a unified Keppel. The singers have done themselves proud; even the judges themselves told me onstage what a remarkable group of talents we have in the Group."

The competition comprised two rounds, with the top five performing a second song each in the final round. Besides the top three awards, which included cash prizes of \$5,000, \$3,000 and \$1,000 respectively, there were also prizes for "The X-Factor" and "Best Dressed". Keppel Shipyard's Cindy Chew walked home with the "Best Dressed" award.

## **MEET SOME OF THE STARS**



## MUHD HAFIZ BIN SENIN, Keppel FELS – K-Star Search Champion

Hafiz attributes his success in the competition to an important figure in his life, his mother. "Thanks to my mother, I am deeply influenced by old Malay rock songs. The second song that I performed, "Kembali Padaku", which means "come back to me" in Malay, is my original composition and a tribute to her.

"I am humbled to be named as the first-ever K-Star. After all, I only joined Keppel six months ago. However, I am deeply thankful for the support from my supervisors and colleagues throughout this exciting journey which has definitely brought me closer to them."



### **GWEN FOONG, Keppel FELS – Fifth place**

With her soulful, powerhouse vocals, Gwen Foong of Keppel FELS moved the audience with her renditions of Adele's "Make You Feel My Love" and Christina Perri's "Human".

Gwen shared, "It's hard to imagine what it would be like without music in my life. I started singing and playing musical instruments since I was five, and took music as an 'O' Level subject. Making it to the top five of K-Star Search is a dream come true!"



## **WONG MUN KEONG, Keppel Shipyard – Most senior contestant**

Sixty three-year-old Wong Mun Keong is a Keppel veteran, having been with the company for 36 years. No stranger to singing competitions, Mun Keong has won the championship title for a singing competition organised by a community centre, as well as the last karaoke competition organised by Keppelite Recreation Club.

Undeterred by not having made it to the finals, Mun Keong is raring to compete again. "I really enjoy singing as I believe it is good for health – it keeps my lungs strong! I know I can do better in K-Star Search and cannot wait for the next run!"



## **VINCENT LIM, Keppel Singmarine – Semifinalist**

Sole representative of Keppel Singmarine, Vincent Lim mesmerised the audience with his jazzy rendition of Nat King Cole's "L-O-V-E".

Recounting on his singing journey, Vincent shared, "I picked up singing during my secondary school days when I worked part-time in a karaoke lounge. I did not imagine that 14 years down the road, I would be representing my business unit in a singing competition. It has been an incredible experience and I'm glad I plucked up my courage to participate in K-Star."

## Unbreakable sporting spirit

The 28th Southeast Asian (SEA) Games, held from 5 to 16 June 2015, saw Singapore achieve its best performance to date with a record haul of 259 medals. Keppelites who were part of Team Singapore share how they brought their Can Do! spirit onto the regional stage.

Compared to his maiden SEA Games experience in Thailand in 2007, archer Leow Ting Hao, Assistant Superintendent, Keppel FELS, found competing on home turf "much more electrifying and unforgettable". Ting Hao, who represented Singapore in the Individual and Team Compound events, enthused, "There was a huge turnout for all the matches and the cheers from the home crowd was a huge morale booster for all of the Singapore athletes."

Sharing that the unwavering support from his family, supervisors and fellow colleagues spurred him on to give his best, Ting Hao said, "Our training sessions were grueling and intensive, but my manager from Keppel FELS, Mr Thanaraj Krishnasamy, was very understanding. He granted

me two months of leave so that I could focus on the Games. During the competition period, my colleagues cheered me on constantly by sending me texts of encouragement."

Ting Hao was captain for the Team Compound event, in which Singapore came in fourth place. "Even though we came in fourth, this has been a very fulfilling journey. We gave our best and are more determined to perform better at the next SEA Games. With an unflagging Can Do! spirit, we will be able to do just that."

Zoe Seet, Graduate Engineer, Piping (Production), Keppel FELS, was another Keppelite who took away precious memories from the event as one of Singapore's representatives in volleyball.

Despite being in the reserve team, Zoe got over her initial disappointment to cheer her teammates on from the sidelines.

"All of us trained very hard and I wanted badly to play in the SEA Games together with my sister, Grace, who was selected for the squad. Nonetheless, it is a great honour to be a part of the national team. When we won the match against Myanmar to clinch the Bronze medal, it was such a joyous moment that all of us were in tears. Our years of training paid off and that victorious feeling was simply incredible."

Zoe's fellow Graduate Engineer, Heng Yang Ling, contributed to the success of the SEA Games in a different capacity - as a National Technical Officer for Table Tennis. Likewise, Keppel FELS' Wong Xinyi, Project Manager, officiated Shooting, while Yeo Teck Chye, Assistant Marketing Manager, and Thomas Mok, Draftsman, officiated Taekwondo.

"It has been 10 years since I represented Singapore as an athlete in Shooting during the SEA Games held in Philippines. Although I'm not playing this time around, it is still a great honour to officiate for such a big sporting event held on home ground," Xin Yi shared.



Leow Ting Hao, Assistant Superintendent, Keppel FELS, had an unforgettable experience competing in front of a home crowd as a member of Singapore's archery team (Picture credit:

## Sowing environmental awareness

World Environment Day, held annually on 5 June, is an initiative by the United Nations Environment Programme to raise global awareness on climate change and environmental protection. In support of the campaign, Keppelites across the globe undertook activities with the communities in which they operate to spread the green message.

**BRAZIL** 

In Angra dos Reis, Brazil, BrasFELS volunteers gave a presentation on water conservation to about 200 students from Cornelis Verolme Municipal School on 3 June 2015. The students also learnt how to create homemade mosquito traps by reusing plastic bottles.

BrasFELS' Environmental Technician Douglas Andrade said, "It was very rewarding to see the children's enthusiasm in doing their part to preserve the environment. We are happy to play a role in helping to guide these children to be socially responsible citizens."

### **QATAR**

Nakilat-Keppel Offshore & Marine (N-KOM) and Nakilat co-sponsored a nationwide Environmental Photography Competition organised by a local non-profit youth organisation, The Youth Company, to raise environmental awareness amongst youth. By using the popular photo-sharing social media platform, Instagram, the organisers hope to engage more young people to participate in the competition.

Back at their yard, N-KOM organised an 'Adopt a Tree' campaign which saw employees sponsoring trees to be planted within the shipyard to add more greenery to their workplace. A total of 80 trees were planted.



BrasFELS volunteers teaching students from Cornelis Verolme Municipal School how to make mosquito traps by reusing plastic bottles



Mr Chandru Rajwani, CEO of N-KOM, giving the "green" thumbs-up to environmental preservation during the tree-planting activity at the shipyard

## **Singapore Day**

Singaporeans in Brazil celebrate Singapore's 50th anniversary in Brasilia on 16 June 2015. They were joined by government officials and business associates at this event organised by Singapore's Ministry of Foreign Affairs (MFA).

H.E. Choo Chiau Beng, Singapore's non-Resident Ambassador to Brazil and Senior Advisor to Keppel Corporation, and Dr Tan Lian Choo, Charge d'Affaires of Singapore's Embassy in Brazil, hosted the event.

The highlight of the event was the Singapore cuisine, cooked up by chefs flown in from Singapore. The 400-odd guests from Brazil,

Singapore and other parts of the world, mingled and bonded over good food and cultural exchange.

A major Singaporean investor in Brazil since 2000, Keppel Offshore & Marine (Keppel O&M) was proud to be one of the event's anchor sponsors.



Celebrating Singapore's 50th anniversary in Brasilia were H.E. Choo Chiau Beng (fourth from left), Singapore's non-Resident Ambassador to Brazil and Senior Advisor of Keppel Corporation, together with H.E. Thiripyanchi U Tun Nay Lin (fifth from left) Myanmar's Ambassador to Brazil, H.E. Pitchayaphant Charnbhumidol (right), Thailand's Ambassador to Brazil, and Mr Kwok Kai Choong (left), CEO and President of Keppel FELS Brasil, and numerous other government and business representatives





Representatives from Keppel Singmarine Brasil, Keppel FELS Brasil, Singapore Airlines and other companies as well as government officials came together at the dinner reception organised by Singapore's Ministry of Foreign Affairs

## **Port of Call**

H.E. Choo Chiau Beng (second from left), Singapore's non-Resident Ambassador to Brazil and the Senior Advisor to Keppel Corporation, and Dr Tan Lian Choo (third from left), Charge d'Affaires of Singapore's Embassy in Brazil, and Mr Marcos Falcao, Partner of Gama Investimentos, and son (second and first from right) were hosted on a visit to BrasFELS by Mr Kwok Kai Choong (left), CEO and President of Keppel FELS Brasil on 20 June 2015.



## **Bonding through sports**





An annual affair, Keppel Nantong's fifth sports meet saw over 550 Keppelites and subcontractors participating in a series of adrenaline pumping track and field events and telematches

To encourage Keppelites to maintain an active and healthy lifestyle, Keppel Nantong organised its fifth annual sports meet on 23 May 2015. The highly-anticipated sporting event saw over 550 Keppelites and subcontractors participating in a series of adrenaline pumping track

and field events and telematches at Nantong Polytechnic.

The sports meet was the grand finale to an action-packed month of sporting activities in May, during which Keppelites competed in a wide range of games, including basketball and soccer.

After a day of intense competition, the top three athletes for each sporting event were presented with a medal and souvenir each. Beyond the medals and prizes, participants took home with them new friendships and strengthened bonds.

## Joy in donating blood



Keppelites across the Group gamely heeded the call for blood donors

Supporting the efforts of the Singapore Red Cross Society, Keppel Volunteers organised the ninth run of the Keppel blood donation drive from 9 to 12 June 2015. Over 100 Keppelites responded to the call for blood donors.

Since 2008, Keppel Volunteers has been organising Group-wide blood donation drives. To make it more convenient for Keppelites to participate, the blood drive was held in multiple locations in the various yards, including Keppel FELS, Keppel Shipyard and Keppel Singmarine.

One of the blood donors, Goh Si Hui, Engineer, Keppel Shipyard, shared, "Keppel's blood donation drive encourages many of my colleagues to participate, especially since most of us find it difficult to find the time to visit the blood bank because of work and family commitments. It is a great and accessible way to make a difference to someone's life."

## Gifts of kindness

Committed to contribute to the communities in which it operates, Keppel Offshore & Marine (Keppel O&M) plays an active role in meeting the needs of the vulnerable segments of societies.

During a visit to Mother Teresa - Sister's Monastery, an old folks home in Baku, Azerbaijan, volunteers from Caspian Shipyard Company (CSC), Keppel O&M's yard in Azerbaijan, discovered that the home was lacking in medical supplies and other items. Determined to help, the management of CSC decided to contribute a hospital bed, a wheelchair and medical supplies for the home's elderly residents.

On 15 May 2015, Mr Lau Kuat Pin, CEO of CSC, visited the home and presented the items to the

residents, taking the opportunity to chat with the residents and staff.



Mr Lau Kuat Pin (centre in suit), CEO of Caspian Shipyard Company (CSC), along with other CSC employees, paid a visit to Mother Teresa – Sister's Monastery and presented gifts of medical supplies and equipment

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## **FLNGV Gimi secures charter**

The second Floating Liquefaction Vessel (FLNGV) conversion project, which Keppel Shipyard will be undertaking for Golar LNG Limited (Golar), has secured a 20-year charter contract for operations in Block R, Equatorial Guinea, starting from the first half of 2019.

On 5 May 2015, Golar, which awarded the conversion contract to Keppel Shipyard, announced that it had signed a binding Heads of Terms with Ophir Energy Plc (Ophir) and GEPetrol, for the provision of the FLNGV, the Gimi. Gimi is the second Moss Liquefied Natural Gas (LNG) carrier which Golar has entrusted Keppel Shipyard to convert into an FLNGV.

The Heads of Terms was formally ratified the following week by GEPetrol, Golar's partner in Block R in Equatorial Guinea.

The agreement is being structured as a 20-year tolling contract, and establishes the key commercial

terms for Golar to build, operate and maintain the FLNGV and related facilities at Ophir's operated Fortuna floating LNG project in Block R.

The Heads of Terms between Golar and Ophir is a positive development reflecting the interest the market has in midsized FLNGV conversion solutions, which are faster and more cost effective than conventional liquefaction facilities.

Full construction activities on the Gimi will commence when Keppel Shipyard receives a notice to proceed.

At full capacity, the Gimi FLNGV will have a contracted capacity of 2.2 million tonnes of LNG per annum. Keppel Shipyard will provide the design, detailed engineering and procurement of the marine systems and all of the conversion-related construction

Keppel Shipyard has engaged Black & Veatch to provide design, procurement and commissioning support services for the topsides, as well as the liquefaction process utilising its established PRICO® technology.

The award of the conversion contract of the Gimi from Golar to Keppel Shipyard in end 2014 marked the exercise of the first of two options, which were part of an earlier firm contract awarded by Golar to Keppel Shipyard for the conversion of the first Moss LNG carrier, the Hilli, into an FLNGV. The Hilli is scheduled to commence commercial operations in Cameroon during the first half of 2017.

Following the signing of this Heads of Terms with Ophir, Golar and Keppel Shipyard will commence discussions on the third FLNGV conversion project.



Management from Keppel Shipyard, Golar LNG and Ophir Energy celebrate the signing of a binding Heads of Terms between Golar LNG and Ophir Energy. The signing at Keppel Shipyard was witnessed by H.E. Gabriel Mbaga Obiang Lima (centre in blue shirt and grey suit), Minister of Mines, Industry and Energy of Equatorial Guinea