Operating & Financial Review

We aim to be the preferred solutions partner in the global offshore & marine industry.

Offshore & Marine

Profit Before Tax

$699m

as compared to FY 2014’s $1,365 million.

Net Profit

$481m

as compared to FY 2014’s $1,040 million.

Major Developments in 2015

- Entered into an agreement to acquire Cameron’s offshore rig business, which comprises the LETOURNEAU™ jackup rig designs, rig kit business and aftermarket services.
- Reinforced expertise as a total solutions provider for the offshore & marine industry with the delivery of the world’s deepest FPSO vessel, Turritella, to SBM Offshore.
- Signed a contract with Golar to perform the conversion of a third Moss Liquefied Natural Gas (LNG) carrier into a Floating Liquefaction facility (FLNG).

Focus for 2016/2017

- Execute existing backlog of orders on time and on budget.
- Continue to rightsize operations in tandem with workload requirements.
- Invest prudently in R&D, productivity and core competencies for long-term growth.
The Offshore & Marine (O&M) Division was entrusted with $1.8 billion of new orders, bringing the value of its net orderbook to $9.0 billion as at end-2015, with deliveries and revenue visibility extending to 2020. Non-drilling solutions make up more than a third of the net orderbook.

The Division’s revenue of $6,241 million for the year was $2,315 million or 27% lower than in 2014, due mainly to lower volume of work done and cessation of work on Sete Brasil’s projects as at end-2015.

A provision of about $230 million was made for the Sete Brasil projects in 4Q 2015, after assessing the construction progress, payment status and amounts due to vendors amongst other areas.

Excluding this provision, the Division turned in a strong operating profit margin of 13.4% for FY 2015, attesting to its robust core operations. Pre-tax earnings of $699 million was $666 million or 49% lower year-on-year, due to lower operating results and the aforesaid provision, partially offset by higher contributions from associated companies.

Net profit of $481 million for the year was $559 million or 54% lower than in 2014.

Market Review
After plunging from a high of over US$100 per barrel in June 2014, oil price continued on a downward trend throughout 2015 before closing at a 12-year low of US$30 per barrel at the start of 2016, due to the mismatch in global demand and supply.

Against this backdrop, oil companies have not only cut back on capital expenditures but also
renegotiated contracts with rig owners to lower dayrates in return for longer charter periods. Several drilling contractors have scaled back their fleet renewal and expansion plans. New orders for production units have also slowed down, as operators defer their investment decisions in this low oil price environment.

Meanwhile, confidence in Brazil, one of the world’s largest energy producers, has been further shaken by political and economic challenges, as well as ongoing investigations into corruption allegations against national oil company Petrobras and its business associates. Sete Brasil, the owner of 29 rigs meant for the pre-salt exploration for Petrobras, was affected with financial difficulties and had ceased payments to all its vendors since November 2014.

Meanwhile, decommissioning work is expected to increase with a rising number of aging platforms in the North Sea that need to be retired safely.

Keppel O&M will continue to focus on rightsizing its operations, improving productivity and optimising resource deployment to meet the challenges of the current downturn in the offshore sector.
Leveraging its flexibility to scale and redeploy manpower, Keppel O&M has been able to channel resources from offshore to marine operations, where there is an ongoing stream of repair and conversion projects. During the year, the company’s direct global staff strength was brought down by 17%. Over the same period, its subcontract workforce in Singapore was reduced by 24%.

Notwithstanding the headwinds, Keppel O&M remains steadfast in delivering its projects safely, on time and within budget to the satisfaction of its customers. During the year, it delivered seven jackup rigs and several non-drilling projects including a Depletion Compression Platform to Shell Philippines Exploration, a Floating Production Storage/Offloading (FPSO) vessel to SBM Offshore, an accommodation semisubmersible to Floatel International and three ice-class vessels to Bumi Armada. In particular, the delivery of ultra-harsh jackup rig, Maersk Integrator, to Maersk Drilling 30 days ahead of schedule, on budget and with a perfect safety record, reinforces its quality hallmark.

**Significant Events**

**January**
Keppel FELS delivered YUNUEN, a KFELS B Class jackup rig, to PEMEX.

Keppel Singmarine secured three contracts worth a total of $330 million to build a multi-purpose vessel, a multi-task Anchor Handling Tug and a liftboat.

**February**
Keppel FELS delivered the fourth high-specification accommodation semisubmersible to Floatel International.

Keppel FELS delivered the ultra-harsh jackup rig, Maersk Integrator, to Maersk Drilling 30 days ahead of schedule, on budget and with a perfect safety record.

Keppel FELS delivered PV Drilling VI, a KFELS B Class jackup rig, to PV Drilling Overseas. It is the 100th jackup rig built by Keppel FELS since 1970.

Keppel Subic Shipyard delivered a Depletion Compression Platform, the first such platform to be constructed in the Philippines, to Shell Philippines Exploration BV.

N-KOM repaired its 100th LNG carrier.
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Even as Keppel O&M works at reducing costs and optimising operations, it is still investing prudently in R&D as well as improving its productivity and core competencies. To enhance its market position, the Company entered into an agreement with Cameron International Corporation to acquire its offshore rig business, which comprises the LETOURNEAU™ jackup rig designs, rig kit business and aftermarket service businesses. This opportunity and strategic acquisition will broaden Keppel O&M’s suite of jackup rig design offerings, enable the sale of rig kits, as well as offer customers an expanded range of aftermarket products and services.

In July 2015, Keppel O&M established a new design and technology arm, Gas Technology Development Pte Ltd (GTD), with the aim of deepening its capabilities and innovative solutions for the gas sector. Since its formation, GTD has been working with trendsetting owners and operators to develop reliable and cost-effective solutions across the gas value chain, including both onshore and offshore liquefaction and LNG transportation.

Making further headway in the gas business, Keppel O&M together with BG Group (BG) were awarded a licence in 2016 to supply LNG bunker to vessels in the Port of Singapore. A 50-50 joint venture will be formed to deliver end-to-end bunkering solutions, leveraging BG’s diversified LNG portfolio and Keppel O&M’s expertise in servicing LNG vessels.

Offshore

In 2015, seven jackup rigs were delivered safely, on budget, and on time to customers including Arabian Drilling, Ensco, Maersk Drilling, PEMEX and PV Drilling. Keppel O&M continues to work closely with its customers to ensure that projects are delivered to their satisfaction.

Besides being the global leader in the design and construction of offshore rigs, Keppel FELS is also trusted for quality repair and modification projects. During the year, Keppel FELS completed 16 repair projects for drilling contractors like Ensco, Diamond Offshore and Stena Drilling.

Keppel FELS intensified its focus on the non-drilling market and secured a new liftboat order from Crystal Heights Holdings. This solution was designed by Keppel O&M’s design subsidiary, Bennett Offshore, in collaboration with Keppel FELS.

BrasFELS delivered the FPSO Cidade de Itaguai MV26 project to MODEC, which is the yard’s fifth FPSO delivery since 2010.
All five projects were completed safely and ahead of schedule. The yard also repaired semisubmersibles for Ensco and Odebrecht, as well as a pipelaying support vessel for Technip/Odebrecht.

On average, the construction of the first four semisubmersibles for Sete Brasil had progressed by less than 4% each quarter since the start of 2015, while minimal work had been done on the last two rigs. With the cessation of payments from Sete Brasil since November 2014, BrasFELS had stopped work on all six rigs for the customer as at end-2015.

Significant Events

- **March**
  Keppel FELS delivered a KFELS B Class jackup rig, KUKULKAN, to PEMEX safely, on time and on budget.

- **May**
  Keppel FELS held the world’s first triple rig naming ceremony for three KFELS B Class jackup rigs – CANTARELL I, CANTARELL II and CANTARELL III – built for Grupo R.
  Asian Lift, a joint venture between Keppel O&M and Smit Singapore, celebrated the naming of Asian Hercules III, the largest and most versatile sheerleg crane of its kind in the world.

- **July**
  Keppel FELS secured a contract from Crystal Heights to build a high-specification liftboat worth US$85 million.
  Keppel Shipyard signed a contract worth about US$684 million with Golar Gandria N.V. to perform the conversion of a Moss type LNG carrier, the GANDRIA, into a Golar Floating Liquefaction facility.
  Keppel O&M won 34 awards at the 2015 Workplace Safety and Health Awards.

- **August**
  Keppel Shipyard secured an FPSO conversion contract as well as three repair, upgrade and modification contracts worth a total of about $125 million.
  Keppel O&M entered into a Stock and Asset Purchase Agreement with Cameron International Corporation, to acquire its offshore rig business, which comprises the LETOURNEAULTM jackup rig designs, rig kit business and aftermarket services for US$100 million.
Over in Brownsville, Texas, Keppel AmFELS continued to fortify its longstanding partnerships with customers, sealing contracts from Noble Drilling to upgrade a semisubmersible for deployment in the Gulf of Mexico. The yard is also constructing its fifth jackup for Perforadora Central. Keppel AmFELS is also currently constructing one of the world’s largest land drilling rigs, which is capable of operating in harsh conditions.

In the Netherlands, Keppel Verolme completed several repair jobs to the satisfaction of its customers. These included two semisubmersibles, a jackup rig and a heavy lift vessel. The yard was also active in tendering for jobs to decommission old platforms. With its strategic location and expertise in complex offshore work, Keppel Verolme is well-placed to serve the decommissioning market in the North Sea.

**Marine**
Keppel Shipyard maintained its shiprepair volume in Singapore, servicing a total of 428 vessels for the year. The yard also converted and upgraded two FPSOs, fabricated four turrets and modified a mooring system. To date, Keppel Shipyard has completed 118 conversion and upgrading projects, including FPSOs, and 75 turrets/mooring systems, entrenching its market leadership in this segment.

During the year, Keppel Shipyard secured a contract from Golar LNG Limited to perform the conversion of a third Moss LNG carrier into a Floating LNG Vessel. It also won a contract from TOTE Services to convert the world’s first large Roll-on/Roll-off cargo vessel which will operate on a dual-fuel diesel LNG propulsion system. The Roll-on/Roll-off cargo vessel is expected to arrive in the second half of 2016. A new 250-tonne quay crane was recently installed at Keppel Shipyard’s Benoi facility to support the execution of a steady stream of marine work.

In China, Keppel Nantong successfully delivered the Asian Hercules III floating crane to Asian Lift, two ice-class supply vessels to Bumi Armada, as well as the Giant 6 and 7 semisubmersible barges to Boskalis. It is presently working with the Nantong authorities on the necessary approvals to construct a new airbag launching slipway that will enable the yard to build larger and heavier vessels.
Meanwhile, its sister yard Keppel Nantong Heavy Industry delivered about 21,000 tonnes of jackup and semisubmersible components to Keppel FELS.

Keppel Batangas and Keppel Subic repaired a total of 107 vessels and achieved 7.5 million safe working man-hours without any lost time incidents. They also supported Keppel FELS in its offshore construction projects.

During the year, Keppel Batangas continued to improve on operational efficiency, adding new equipment and modifying its yard layout to improve workflow and productivity, as well as reduce costs.

Keppel Subic, having expanded its plate storage area, is now able to handle steel plates easily. The yard will continue to work with Keppel Shipyard to secure high value jobs such as FPSO and other marine conversion projects.

Together, Nakilat-Keppel O&M (N-KOM) in Qatar and Arab Heavy Industries (AHI) in the United Arab Emirates, are poised to serve more customers in the Arabian Gulf.

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Keppel FELS delivered UMW Naga 8, a KFELS B Class jackup rig, to Malaysia’s UMW Oil & Gas Corporation Berhad. It was completed 32 days ahead of schedule, on budget and with a perfect safety record.

Keppel Singmarine delivered three ice-class vessels on schedule and with a perfect safety record to Bumi Armada.

Keppel FELS delivered ARABDRILL 70, a KFELS B Class jackup rig, to Arabian Drilling Company. It was completed three days ahead of schedule, on budget and with a perfect safety record. The ARABDRILL 70 is the fourth KFELS B Class jackup rig to work for the customer.

Keppel Shipyard delivered the world’s deepest FPSO vessel, Turritella, to SBM Offshore.

Keppel Shipyard delivered three conversion contracts – an LNG FSU vessel for Armada Floating Gas Storage and an FPSO vessel awarded by Yinson Production (West Africa).

BrasFELS secured an FPSO integration contract awarded by MODEC Offshore Production Systems (Singapore).

CSC secured a barge enhancement contract awarded by BP Exploration (Shah Deniz).
AHI is an established provider of an entire spectrum of shiprepair, conversion, shipbuilding and steel fabrication services. In 2015, AHI repaired 138 vessels for both international and local customers such as Boskalis, McDermott International and Middle East Dredging Co, and also began constructing a Self-Installing Platform for TOA Corporation.

Meanwhile, N-KOM’s versatility has enabled it to secure and execute a diverse range of projects. In 2015, the yard completed the world’s first Main Engine Gas Injection conversion project for a Nakilat Q-Max LNG carrier. This vessel was modified to run on LNG as an alternative fuel. During the year, N-KOM’s new floating dock, which is the largest of its kind in the world, drydocked its first vessel.

**Specialised Shipbuilding**

In 2015, Keppel Singmarine sealed several new contracts including an ice-class multi-purpose vessel for New Orient Marine, a multi-task Anchor Handling Tug for repeat customer Seaways and a contract to provide technical services for N-KOM.

Keppel Singmarine is set to deepen its track record for the design and construction of ice-class vessels. Including the latest contract with New Orient Marine, Keppel Singmarine has been involved in constructing a total of 12 ice-class vessels. Of these vessels, three were delivered to Bumi Armada in 2015.

During the year, Keppel Singmarine expanded its suite of solutions to meet the demand for specialised ships in the LNG sector. Riding on the prestigious Gastech conference, it launched new designs for LNG carriers, bunker vessels, barges and tugs, including a 65-tonne dual-fuelled LNG Azimuth Stern Drive (ASD) tug, which was the winner of the Maritime and Port Authority of Singapore’s Outstanding Maritime Research and Development and Technology Award.

Keppel O&M has undergone several challenging cycles throughout its history, emerging stronger and more resilient each time.
Over in Brazil, Keppel Singmarine Brasil delivered the last of six harbour tugs to Rebras-Rebocadores do Brasil. In 2016, the yard will continue to focus on completing two 4,500 deadweight tonnage platform supply vessels.

Keppel O&M is well-positioned to capture opportunities in the Caspian Sea through Caspian Shipyard Company (CSC) and Baku Shipyard in Azerbaijan.

CSC secured two major upgrade contracts in 2015 from repeat customers Caspian Drilling Company (CDC) and BP. The construction of Azerbaijan’s first modern semisubmersible rig, the DSS 38M™ semisubmersible, is progressing well at CSC and is scheduled for delivery by end-2016. Baku Shipyard, one of the most modern shipbuilding and repair facilities in the Caspian Sea, secured and completed 31 repair and upgrading projects during the year. These included the upgrading of the semisubmersible Dada Gorgud for CDC.

Industry Outlook
Keppel O&M has undergone several challenging cycles throughout its history, emerging stronger and more resilient each time. The present offshore downturn presents the opportunity to enhance the company’s long-term sustainable, competitive position as it readies itself for the upturn.

Offshore Rigs
With oil prices at current low levels, the replacement cycle for aging rigs might be accelerated as new rigs entering the market at lower dayrates are forcing old units out of the market. The attrition of old rigs will hasten a rebalance of demand and supply for the rig market in the longer term.

Since June 2014, 14 jackups and 42 floaters have been removed from the global rig fleet, compared to just 10 jackups scrapped in the preceding one and a half years.
Keppel Shipyard delivered the world’s deepest FPSO vessel, Turritella, to SBM Offshore in August 2015.

Mr S Iswaran (centre with red tie), Singapore Minister for Trade and Industry (Industry), being briefed by Mr Michael Chia (left), MD (Marine and Technology), Keppel O&M, and Mr Chor How Jat (right), MD, Keppel Shipyard, at the opening of the Gastech Singapore Pavilion.

The rig market in the Middle East has been resilient, with the number of rigs employed remaining constant. In addition, the lifting of sanctions in Iran could bolster rig demand. In Mexico, the award of three shallow-water blocks by the country’s Natural Hydrocarbons Commission is an encouraging sign and may stimulate demand for jackups and floaters eventually. Even with the current low oil prices, the long-term fundamentals of Mexico’s offshore oil and gas industry remain strong. Keppel O&M is well-positioned to capture opportunities from the opening up of Mexico’s oil and gas sector.

With its extensive suite of proprietary solutions and prudent investment in R&D, Keppel O&M is able to serve a wide spectrum of customers in both drilling and non-drilling markets. Non-drilling solutions made up more than a third of Keppel O&M’s orderbook as at end-2015. With its own series of liftboat and multi-purpose vessel designs, Keppel O&M will be able to support its customers in the maintenance of most shallow-water oil and gas fields.

**Shiprepair**

The shiprepair market is expected to remain subdued, with charter rates staying low for most merchant vessel types. Dry bulk and container operators continue to be affected by weak growth in global trade and persistent overcapacity. While tanker rates have picked up slightly in the last quarter of 2015, ship owners are observed to only perform essential work.

Nonetheless, pockets of opportunities have emerged in the area of retrofit work such as dual-fuel conversion. Keppel O&M will continue to maintain its existing client base while expanding its market.

**Production Units**

It is estimated that more than half of the 251 floating production system projects under planning are FPSO units and liquefaction/regasification floaters. According to Douglas-Westwood, global LNG capital expenditure could reach as much as US$259 billion by 2019. This would include spending on baseload onshore and offshore liquefaction equipment, LNG carriers and regasification for onshore and offshore terminals.
LNG Solutions

Building on its experience and track record for complex offshore conversion projects, Keppel O&M is poised to become a total solutions provider for the LNG industry. In 2008, it successfully converted the world’s first Floating Storage and Regasification Unit (FSRU), which was closely followed by the award of two more FRSU projects. In 2014, it became the first shipyard to undertake an FLNG conversion.

In recent years, the company has equipped itself to capture a wider range of opportunities in the gas business, expanding its offerings to include both onshore and offshore liquefaction, as well as LNG transportation solutions.

PreNEx (Pre-cooled Nitrogen Expansion) is Keppel’s proprietary natural gas liquefaction technology. It offers a simple, safe and reliable liquefaction alternative and can be employed for offshore and onshore purposes. LNG produces considerably lower emissions than conventional marine fuel and can significantly reduce a vessel’s environmental impact.

With the licence to supply LNG bunker to vessels in the Port of Singapore, Keppel O&M and BG will collaborate to deliver end-to-end bunkering solutions, combining LNG sourced from BG’s diversified LNG portfolio and Keppel O&M’s expertise with LNG vessels. The first LNG bunker delivery is slated for 2017.

The prospect of supplying LNG as a fuel for ships in Singapore, one of the world’s most strategic ports, is encouraging. As the shipping industry’s demand for green solutions continues to rise, Keppel O&M will also be able to meet the needs for sustainable shipping by offering solutions such as barges, carriers and dual-fuel tugs that can run on LNG, as well as the retrofitting of vessels to run on this fuel source.

Looking ahead, Keppel O&M’s concerted gas strategy and its enhanced suite of non-drilling solutions, will help to create new opportunities for the company and cushion the impact of weak demand for drilling rigs.