

BUSINESS REVIEW

OFFSHORE BUSINESS

MISC's Offshore Business segment offers a comprehensive array of innovative offshore solutions from concept selection, engineering design, project management and operations right up to decommissioning in the floating production systems (FPS) market. We cater to marginal, conventional and deepwater field developments for national and international energy companies. We possess exceptional production and operations performance track records for all our facilities.

As one of the leading floating offshore solutions providers in the world with 14 assets, MISC's business reach spans Malaysia, Vietnam, Thailand, Brazil and other strategic locations to meet the global demands of the energy industry.

Further details on Offshore Business
<https://www.misc.com.my/solutions/offshore-business>



KEY HIGHLIGHTS



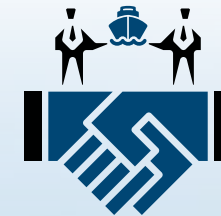
FPSO average uptime of **98.86%**

FSO average uptime of **100%**

Fleet average uptime of **99.34%**

Malaysia Vietnam Offshore Terminal (L) Limited (MVOT)'s *FPSO Golden Star* successfully received the

1st condensate for the Sao Vang and Dai Nguyet (SVDN) Project offshore Vietnam



Extended contract with Shell for *FPSO Espirito Santo* by another

5 years



Strong HSE culture with **ZERO** fatality recorded and LTIF of **0.22**



Awarded the **Mero 3 FPSO** project by Petrobras

FINANCIAL PERFORMANCE



Revenue **RM1,289** million



Operating Profit **RM566** million



SYED HASHIM SYED ABDULLAH
Vice President, Offshore Business

OFFSHORE BUSINESS VICE PRESIDENT'S REMARKS

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2020 has been an extremely challenging year on all fronts, as the impacts of the COVID-19 pandemic extended beyond public health and safety concerns to affect the global economy. Reflecting the interconnectedness of today's world, the pandemic led to massive uncertainties that resulted in volatilities in the financial and commodities markets, including price volatilities in the crude oil market. As the Offshore Business segment is dependent on contracts from oil and gas players, we were not sheltered from these fallouts.

Despite this, we recorded key wins during the year, the result of our employees' unwavering focus, resilience and passion, as they continued to perform at their best levels in very trying circumstances. They adapted well to changes in work methodologies and were able to work around the constraints that the pandemic caused to deliver on our business goals. We were able to meet our financial targets, despite having to contend with requests for discounts from our oil and gas clients who were undergoing their own difficulties as a result of a drastic drop in demand for oil.

An achievement we are particularly proud of is being awarded a project by Petróleo Brasileiro S.A. (Petrobras) for an FPSO

to be installed in the Mero field belonging to the Libra block in Brazil's Santos Basin (the Mero 3 FPSO project), as well as its corresponding operations and maintenance services in August 2020. The project signifies our maiden venture into the Brazilian premium FPSO market and marks our acceptance as a player to contend with on the global stage.

This award is extremely meaningful for us, forming part of our large-scale capability building initiative which we commenced in 2018 to transform the Offshore Business segment into an international player by focusing our investments on people, processes, partners and technology. Since then, we have been steadily growing our capabilities and capacities, and were able to submit a technically competent proposal to the client that offered them the best value. Despite travel restrictions that prevented us from meeting our clients face to face, we were able to leverage on digital platforms to successfully negotiate and conclude the signing of the contract.

While the pandemic had caused many projects that we had set our sights on to either be deferred or cancelled, we were able to successfully negotiate contract extensions for our existing operational works, most notably for five years in Brazil on our joint venture *FPSO Espirito Santo*. As a result of the lockdowns, closures of borders, and heightened health and safety requirements, we encountered some challenges in terms of contract deliveries. Nevertheless, we did our best to deliver on our projects according to our clients' expectations.

Our *FSO Golden Star*, successfully received the first condensate for the Sao Vang and Dai Nguyet (SVDN) Project offshore Vietnam in December 2020. We maintained progress on all our existing FPSO and FSO assets, which continued to perform well. As well as that, we have been working closely with all our clients to improve their commercial returns on our operations and maintenance contracts.

The business has remained on our upward growth trajectory, as demonstrated by the expansion of our workforce which increased from 100 a few years ago, to close to 400 today. In 2020, whilst many companies halted their new hire programmes in what has been the worst recession since the Great Depression in the 1930s, we continued to bring on board new talent, as we maintained our focus on talent management, training and knowledge transfer.

HSSE was our utmost priority, and we received several awards in 2020 from the Malaysian Society for Occupational Safety and Health (MSOSH) validating our efforts to build an excellent safety culture. In particular, our *MAMPU 1* asset received the Gold Merit Award, while the *FSO Orkid* received the Gold Class 1 Award.

While the pandemic did affect various aspects of our business, I believe we were able to manage the impacts and mitigate the risks well. It was challenging to continue with business as usual with movement controls and quarantines in place. There was some slowdown in terms of planned work schedules, but for the most part our employees were able to quickly adapt to the new normal and employ innovative and new ways of getting their job done. Having already embedded digital and online tools within the Offshore Business segment, we accelerated our adoption of these applications and used them almost seamlessly as the pandemic evolved.

We had carefully structured plans in place to manage our employees' work schedules whilst safeguarding their health. The greatest impacts were felt by our site-based employees, operations and logistics as a result of uncertainties in travel, visas, quarantine and associated protocols. However, by working closely with our clients, we were able to successfully navigate the difficult operational environment. We stepped up on our engagements with our employees, shifting to virtual communication platforms to allay their fears and keep them motivated. Our leaders showed tremendous resolve to capably and empathetically manage their teams.



A significant focus area for the year ahead is to embed Environmental, Social and Governance (ESG) pillars we have identified within the MISC Sustainability Strategy 2021-2025 into our own sustainability strategy. These will be delivered progressively by project owners within the Offshore Business segment. As well as that, we have established a dedicated project team that shall be examining new business opportunities and sustainability projects centred on through the environmentally friendly sources of energy and other new technologies that will further enhance our future outcomes, in line with the transition to decarbonisation.

As we move into the year ahead, we are keenly focused on delivering on the best health, safety and environmental outcomes, as we continue to invest in our employees and growing our teams' capabilities and support systems. Since conducting a gap analysis of our organisation two years ago to identify areas that required improvements, we have been steadily progressing on not just closing up these gaps, but also strengthening our capabilities.

Having successfully obtained and invested significantly in the Mero 3 FPSO project, failure is not an option. Our primary focus for the year ahead is to progress with the project on time and on budget. We will continue to maintain and enhance our existing contracts' operational performance, whilst working towards contract renewals and securing new awards from targeted opportunities. We will leverage on our strengths to

drive the globalisation of our business as we meet the challenges of new client demands and market shifts in these challenging and evolving times.

As we move into the next phase of our growth journey in the post-COVID-19 era, we have fine-tuned our strategy by taking into account market shifts that we expect in these unprecedented times. In the medium term, as the world slowly recovers from the pandemic, we expect FPSO and FSO project opportunities to increase particularly in South America. Bearing this in mind, in addition to our core markets of Malaysia and Southeast Asia, we will continue to selectively pursue opportunities farther afield in South America, especially in Brazil and around the Gulf of Mexico, with Africa remaining an area of interest for us. We will also be looking towards effecting inorganic growth by acquiring key assets that will complement our strategic expansion within the next one to two years. With the Group's robust financial position and strong cash flow, we believe that we are well placed to do so.

Fuelled by our diverse and skilled workforce from around the world, and with the strong support of the MISC Board and leadership, we will maintain our journey of continuous improvement and growth. We are optimistic that our focused approach will continue to engender new opportunities for us in the years to come.

SYED HASHIM SYED ABDULLAH
Vice President, Offshore Business

MARKET REVIEW

In the recent past, the average production capacity of FPSO units have been steadily increasing for both leased and owned units, of which the latter tend to possess larger processing capabilities compared to the former. Growth has mainly been driven by projects located in Brazil with processing capacities of over 200,000 barrels of oil equivalent (boe) per day. As of January 2021, there are 296 FPS in service.

The top five regions for installed FPS are Southeast Asia (93 units), Africa (73 units), South America (72 units, majority which are located in Brazil (67 units)), Gulf of Mexico (54 units) and Northern Europe (47 units). FPSO units comprises 56% of the installed FPS.

Over the next five years, it has been forecasted that between 35 to 70 FPSO orders will be awarded. Assuming oil prices remain steady at around USD50 per barrel, these awards should follow through, arising mainly from Brazil, followed by Southeast Asia and Africa. As a result of the COVID-19 pandemic, many energy majors have committed to accelerating their energy transition strategies, and are emphasising on the sustainability agenda as a key element to drive their future growth. This in turn will impact MISC in terms of FPS solutions that are innovative and eco-friendly.

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KEY DEVELOPMENTS

A milestone contract the Offshore Business segment secured in 2020 was the Mero 3 FPSO project, located in Brazil. More information on this project can be found in the Vice President's Remarks in this Business Review.

In December 2020, we entered into an agreement with Shell to renew leasing and operations contracts for a further five years for the *FPSO Espirito Santo* in Brazil. The contractual lease and operate period has now been extended to December 2028, thus securing MISC's long-term income stream. MISC holds 49% equity ownership in the *FPSO Espirito Santo*, while SBM Offshore N.V. holds 51%.

In 2020, all of our existing FPSO and FSO contracts continued to contribute to MISC's cash flow. The contracts that have been extended will sustain our revenue into 2021 and beyond. Among these are contracts with PETRONAS for the *FPSO Bunga Kertas* and *FSO Puteri Dulang*, PETROFAC for the *FPSO Cendor*, Vestigo for *MAMPU 1*, REPSOL for *FSO Orkid*, Murphy Oil Corporation for *FPSO Kikeh*, Sabah Shell Petroleum Company for *Semi-FPS Gumusut Kakap*, PC Vietnam Limited for *FPSO Ruby II*, Chevron for *FSO Benchamas*, and Hess Exploration for *FSO Mekar Bergading*.


On the business development front, we pursued the highly anticipated PETRONAS deepwater FPSO in Limbayong offshore Sabah which was re-tendered in September 2020. Apart from that, we have participated in several market surveys out of Asia Pacific and Brazil, and have been closely engaging with major clients to support field developments in Africa and the Americas. These activities are set to continue into 2021 and beyond.

During the year, our exemplary HSSE culture was externally validated by a number of awards. Among them was the Repsol Marine Vessel Safety and Operational Excellence Award for the *FSO Orkid*.







SUSTAINABILITY

In 2020, we maintained our sustainability commitments within the Environmental, Social and Governance (ESG) spheres.

Sustainability Pillar	Initiatives and outcomes
Shareholders 	In 2020, we established our Special Projects team that is focusing on capturing valuable sustainability-centred opportunities that will drive our future growth. The team will look into how to better manage greenhouse gas (GHG) emissions and improve our water and waste management efforts throughout our FPS operations. They are also identifying new technologies that could potentially improve our fleet efficiency or enhance our commercialisation capabilities. As well as that, they are exploring the use of wind, current and wave as new sources of clean energy for our fleet. By exploring these sustainability long-term opportunities, we are also gearing towards increasing shareholder value, as the world continues to drive the climate change agenda.
Customers 	A customer survey was conducted during the year and the Offshore Business segment obtained excellent feedback. Respondents indicated they were satisfied with our overall services and facilities provided. We scored a rating of 'Meeting Expectation'. Based on the outcomes of the survey, an action plan with respect to the identified gaps and areas of recommendation has been developed and is being progressively implemented.

For more details on the customers survey, please refer to the Anchoring Sustainability @ MISC section on page 104 of this Integrated Annual Report.

Sustainability Pillar	Initiatives and outcomes
Governance and Business Ethics 	In 2020, the Offshore Business segment embarked on the Social Risk Assessment (SRA) exercise by conducting an SRA awareness session for key employees. Based on the SRA materiality assessment, we have decided to conduct SRA on one of our joint venture assets in 2021.
Employees 	With regards to our employees, we have in place a Behavioural Health and Safety programme that promotes an excellent HSSE culture by offering practical ways that our employees can enhance their health and safety awareness and attitudes. Due to the challenges associated with COVID-19, we opted to implement the programme via a digital platform in 2020, which involved all our 340 employees.
Environment 	In 2020, we continued with our environmental contributions through the following initiatives: <ul style="list-style-type: none"> Electronic Waste (e-waste) Collection Initiative We created more awareness through our e-waste collection campaign which provided convenient e-waste collection points for all employees to responsibly dispose of their e-waste. A Department of Environment approved e-waste collector was appointed to manage e-waste collection and disposal. We disseminated information on this initiative through workplace talks and emails. Ozone Depleting Substance Phase Out Programme In line with MISC's sustainability agenda, we are progressively replacing R-22 as an air-conditioning refrigerant with more eco-friendly alternatives within all our FPS assets. The programme began in 2019 and will be completed in 2021. Green Ship Recycling The disposal of offshore floating assets after it reaches the end of its service life leaves a huge amount of waste, posing a potential hazard to the environment. While shipbreaking has emerged as the most common method of ship disposal, environmentally unsustainable shipbreaking practices have resulted in the dumping of dangerous toxic materials on beaches and other open spaces. Towards an effective greener and more responsible operations, we had embarked on our first green ship recycling experience with the demobilisation of <i>FSO Abu</i> in October 2018. In 2020, we continued with our green ship recycling efforts with the demobilisation of <i>FSO Cendor</i> and <i>FSO Angsi</i>. Our green ship recycling efforts are in line with our commitment towards the International Maritime Organisation's Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009.
Community 	The offshore business segment proactively supported community investment through the group initiatives in investing for the next generation of talent.

During the year, as part of the Group's community initiatives, we conducted a detailed study, the *FPSO Kikeh* GHG Emission Reduction Studies, which looked into available solutions and technologies to reduce GHG emissions on the *FPSO Kikeh*. The scope of the study is focused on the recovery of cargo vent gas that is currently released to the atmosphere via cold venting.

For more details on MISC's community initiatives, please refer to the Anchoring Sustainability @ MISC section on page 104 of this Integrated Annual Report.

MOVING FORWARD

The massive reduction in oil and gas companies' CAPEX in 2020 as a result of the crisis has led to some USD155 billion worth of greenfield projects that is now waiting to be sanctioned in 2021. This represents USD60 billion more than what was actually sanctioned in 2020. Given this shift, Energy Maritime Associates (EMA) shared that 137 FPSO projects will continue to be assessed from 2021 to 2025. We are expecting around 10 project awards in 2021, and potentially a further 35 until 2025.

Our oil and gas clients are more keenly focused on the energy transition which is opening up new opportunities for us. Our Special Projects team is looking into these opportunities, to identify those that will provide us sustainable long-term returns. We will also be looking at engendering greater collaborations with our clients on this front.

A large part of our forward moving plans is centred on our employees. We will continually improve our HSSE outcomes, to ensure the health and safety of our employees in their work environments. In the spirit of diversity and inclusion, we continue to invest in programmes to attract diversified talents whilst providing an inclusive environment and equal opportunities for our existing employees to thrive and upskill themselves.

Our main focus for the year ahead is to ensure that we deliver on the major projects we have secured during the year, on time and on budget. As part of the MISC's growth agenda, we will continue to explore potential projects that will serve MISC's best interests both locally and internationally. In addition to expanding in Brazil, Offshore Business segment remains open to opportunities in Asia Pacific, the Americas and Africa, as well as new partnerships that are related to our core business.