

EMBRACING CHALLENGES & OPPORTUNITIES

IN A CHANGING LANDSCAPE

SUSTAINABILITY REPORT 2019



CONTENTS

About The Report

Chairman's

Sembcorp Marine At A Glance

Our Approach To Sustainability

Our Value Chain Supply Chain Management

Delivering Sustainable And Innovative Solutions

18
Fulfilling The Needs Of Our Customers

26
Addressing Environmental Challenges

36 Nurturing Our Human Capital 46
Protecting
Our People

54
Caring For
Our Communities

62
Operating
A Responsible
Business

SUSTAINABILITY REPORT 2019

ABOUT THE REPORT

To showcase our increasing commitment towards environmental, social and governance (ESG) matters, we have prepared our Sustainability Report 2019 as a standalone publication. Through this report, we aim to share the progress we have made in a clear, concise, and informative way.

We have prepared this report in accordance with the Global Reporting Initiative (GRI) Standards: Core option. The GRI Content Index for this report is separately published on our website [www.sembmarine.com]. We have also aligned our sustainability reporting with the United Nations Sustainable Development Goals (UN SDGs) and the Oil and Gas Industry Guidance on Voluntary Sustainability Reporting issued by IPIECA, the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP).

This report can be accessed on our corporate website and should be read in conjunction with our sustainability disclosures online.



SCOPE OF SUSTAINABILITY REPORT

We have expanded the scope of our Sustainability Report 2019 to cover the yards under our operational control in Indonesia and Brazil, in addition to our operations in Singapore, unless otherwise stated. These three regions have the most significant impact on our organisation and our stakeholders. The data reported relates to the financial year ended Dec 31, 2019.

Within the Sustainability Report, the terms "Sembcorp Marine", "Sembcorp Marine Ltd", "the Group" and "we" are used interchangeably to reference operations and facilities in Singapore, Indonesia and Brazil, unless indicated otherwise.

The Group's entities included in the consolidated financial statements are detailed in the Notes to the Financial Statements of our Annual Report 2019, which is published separately.











ASSURANCE

We have engaged PricewaterhouseCoopers LLP for the third year to undertake an assurance engagement in respect of selected sustainability information of our report. The scope of assurance was conducted in accordance with the Singapore Standard on Assurance Engagements (SSAE) 3000 - Assurance Engagements other than Audits or Reviews of Historical Financial Information. Details can be found in the Independent Limited Assurance Report on Sustainability Information on our website.



SCAN FOR MORE INFORMATION



Sustainability Report 2019

- SGX Sustainability Reporting Index
 GRI Standards: Core Option Content Index
- Independent Practitioner's Limited
- Assurance Report



Annual Report 2019

 Read additional information on our financials, operations, corporate governance and risk management framework



To provide feedback on Sembcorp Marine's sustainability reporting, please email to sustainability@sembmarine.com.

SUSTAINABILITY REPORT 2019

CHAIRMAN'S FOREWORD



Intense heat waves, melting polar ice caps, rising sea levels and severe storms are alarming signs of climate change that hasten the call for sustainable development and a low-carbon economy. Like many responsible organisations, Sembcorp Marine heeds this imperative diligently. We have been reporting our sustainability performance in the Sembcorp Marine Annual Report since 2011, but starting this year we are pleased to present our sustainability vision, goals and progress in a standalone Sustainability Report.

Sembcorp Marine creates long-term stakeholder value by observing high governance standards and managing our environmental and social impact proactively. We aim to broaden our low-carbon products and solutions, reduce our environmental footprint and improve our communities. In 2019, our sustainable products and solutions accounted for 24% of our total revenue. We will raise this to 30% by 2025.

Across Sembcorp Marine's global operations, our 'Climate,

Ocean and Earth' sustainability programmes focus on cutting carbon emissions, conserving the oceans and managing natural resources conscientiously. We walk the talk by increasingly tapping renewable energy and adopting energy-efficient and waste-reducing equipment.

We rally our customers, vendors and employees towards a culture of Zero Harm to People, Property and the Environment. We are motivated to improve our safety practices continuously. In 2019, we won 24 awards for our workplace safety performance.

Sembcorp Marine also believes in nurturing our people in a fair, inclusive and respectful working environment, with equal opportunities for growth. We upskill our workforce constantly. In 2019, every employee received an average of 45 training hours.

Beyond the workplace, we aspire to be a socially responsible corporate citizen. In 2019, we contributed \$1.81 million and over 10,000 employee-volunteering-hours towards diverse social causes, including youth and education,

environmental conservation and community care. We create employment opportunities in our global operations and implement health and social initiatives for the local communities.

While Sembcorp Marine is fully committed to enhancing the well-being of individuals, society and the environment, Sustainability is a collective responsibility that all of us must commit to. Only then can we effectively ensure a greener planet and a better tomorrow for our present and future generations.

I encourage everyone to do their part. Together, we can and will make a difference.



Tan Sri Mohd Hassan Marican Chairman Semboorp Marine Ltd

SUSTAINABILITY REPORT 2019

SEMBCORP MARINE AT A GLANCE





24%

of annual company turnover from sustainable products and solutions



>2,100 tCO₂e¹

of carbon avoided from clean energy generated by the solar panels at Sembcorp Marine Tuas Boulevard Yard, equivalent to taking 660 cars off the road for a year



non-compliance with anti-competitive behaviour, anti-trust and monopoly policies



45

training hours per employee globally



(per million man-hours worked)



\$1.81 MILLION

invested in community programmes

- (1) tCO₂e refers to tonnes of carbon dioxide equivalent, a measure that allows comparison of the emission of other greenhouse gases relative to one unit of CO₂.
- (2) LTIR refers to Lost Time Injury Rate. For more details, please refer to page 47

SUSTAINABILITY REPORT 2019

OUR APPROACH TO SUSTAINABILIT



Sembcorp Marine takes a long-term approach to creating value for our stakeholders. We aim to minimise our environmental impact and support our communities, while achieving positive financial performance, business growth and high standards of governance.

Our commitment to sustainability is anchored to our mission, vision and values, which are the guiding principles for our business conduct.

In the course of our regular materiality reviews3, we identified seven key material issues and set corresponding sustainability performance targets in 2017. Last year, we expanded our reporting scope beyond Singapore to include Indonesia and Brazil. While our sustainability performance is assessed by the Sembcorp Marine Sustainability Council, Senior Management Committee and Board Executive Committee, we also engage our global stakeholders regularly for their feedback.

MATERIAL ISSUES



Innovation & Solutions

- Won Design-and-build 12,000-cubic-metre (cbm) LNG bunker vessel project Continued to market innovative gas terminal solutions (Gravifloat) Commercialised Semb-Eco IP Joined A*STAR's Industrial Internet-of-Things Innovation (I³) as a consortium member Achieved 24% of annual company turnover from sustainable products and solutions



Customer Alignment

- Delivered Sleipnir, the world's strongest dual-fuel semi-submersible crane vessel Secured order book of \$1.49 billion, with \$530 million relating to offshore gas, renewable energy and green technology retrofit projects Maintained 100% compliance with product safety and health Achieved 95% customer satisfaction for repair and upgrading projects



Environmental Sustainability

- Yard (TBY) 100% contracted responsible
- status for new corporate office building at TBY
- Continuing efforts towards ISO 50001 certification
- from non-compliance with environmental laws and regulations,

- Continue to grow client base and secure projects in new market segments
 Maintain 100% compliance with product safety and health
 Maintain above 90% customer satisfaction in all projects
 Maintain 100% quality, health, safety and environmental certifications
 Maintain high standards of customer security and data privacy protection

- Plus status at TBY Achieve ISO 50001 Energy

2020 TARGETS

2019 PERFORMANCE⁴

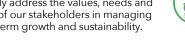
- (3) Aligns with Global Reporting Initiative (GRI) Standards 101 (clause 1.3), 102-44, 102-46 and 102-47 on defining content and boundaries. 2019 Performance included reporting of our progress towards our 2025 targets. For more information, please refer to Sembcorp
 - Marine's previously published Annual Report 2017, pages 71 to 73.
- (5) For more details, please refer to page 47.

SUSTAINABILITY REPORT 2019



Business Growth

We actively address the values, needs and priorities of our stakeholders in managing our long-term growth and sustainability.





Environmental Sustainability

We mitigate our environmental impact by improving resource and operational efficiency, reducing our carbon footprint, and developing sustainable products and solutions.



Social Growth

We create positive impact on our communities and for our stakeholders through our business and corporate social responsibility activities.



.....

Corporate Governance

We are committed to regulatory compliance, transparency, accountability and a proactive risk management culture with high ethical standards.















Sembcorp Marine aligns its programmes with 11 UN Sustainable Development Goals and other international frameworks relevant to the Group's business strategy. This is indicated in the subsequent sections on the seven material issues we have identified.



- \$4.7 million, equivalent to 1.13% of total payroll
- hours per employee globally



Total Workplace Safety & Health

- Rate, Accident Severity Injury Rate at 0.56, 89.79 and 147.12 respectively⁵
- safety induction for all yard visitors



Community Engagement

- Invested \$1.81 million in
- Staff dedicated more than 10,000 hours to activities
- School Book Assistance
- institutes in the Green Care Competition

Business Integrity

- Maintained 100% compliance with codes of conduct by

- Invest 3% of total competencies and talent
- hours over 5 training
- Vision Zero incidence
- yard visitors
- \$2 million annual
- Staff share 10,000
- SchoolBAG programme
- Attract more than 1,200 annual Green Wave **Environmental Care**
- national industry sustainability capability building

SUSTAINABILITY REPORT 2019

OUR VALUE CHAIN

Throughout the life-cycle of each project, Sembcorp Marine pays close attention to the environmental, social and governance impact of our activities. We see ourselves increasingly as an extension of our customers' sustainability value chain and work closely with them to fulfil our obligations towards the environment and the community.

INNOVATION & SOLUTIONS — DIPROCUREMENT DEVELOPMENT

- Research & Development
- Concept & Solution Engineering Simulation & Testing
- Raw Materials Sourcing













We build trust and maintain long-term relationships with our customers. By understanding and adapting to their changing requirements, we provide them with solutions that are effective. compliant, sustainable and within budget.

Through various channels, including exhibitions, conferences, surveys, dialogue sessions and social events, we engage our customers extensively to understand their needs and strengthen our connections with them.

We also have robust systems and practices that safeguard our customers' personal data, physical assets and intellectual property.



Beyond compliance, we work with our customers, suppliers and contractors to mitigate environmental impact, promote ethical business practices, and foster respect for human rights.

We collaborate through joint project planning, technology sharing, workplace safety and health (WSH) training and strict adherence to Sembcorp Marine's Code of Business Conduct and Supplier Code of Conduct.



We care for the well-being of our employees and contractors and have stringent workplace safety, environment and health processes in place. Across the Group, we promote a safety-first culture.

Besides providing our employees with a conducive working environment, we offer them equal opportunities for growth and merit-based career advancements.

We help our employees stay relevant and future-ready through continuous training and development.

SUSTAINABILITY REPORT 2019

Scan for more information on our value chain management



QUALITY, HEALTH, SAFETY & ENVIRONMENT

- Quality, Health, Safety & Environment Assurance
- Compliance Checks





- Towing Solutions
- Heavy Lifting
- Logistics Support



PRODUCT IN OPERATION

- Product Training & Documentation
- After Sales Support





We communicate with shareholders, investors, finance professionals and the media in a fair, transparent, accurate, and timely manner.

We update our stakeholders on Sembcorp Marine's financial performance, business strategies and developments through our results announcements, news releases, meetings, teleconference calls and our participation in investor conferences and non-deal roadshows.

We organise investor days, yard visits and various other events for investors, shareholders, analysts and media to interact with our key management teams.



Communities

As a member of the local communities where we operate our business, Sembcorp Marine has a responsibility to contribute to the interests of the stakeholders around us.

To improve the local economy, we offer training, educational and employment opportunities.

We serve our communities by providing monetary, volunteering and other in-kind support to students, youths and the underprivileged. We also spearhead and sponsor initiatives that enhance and preserve the physical environment in the community.



We partner with government agencies, industry bodies and private-sector organisations to advance the development of the offshore, marine and energy sectors through R&D collaborations, dialogues, networking events and outreach activities.

We organise regular dialogues and site visits for government authorities, surveyors, and industry associations to exchange knowledge, share best practices as well as promote quality, health, safety and environmental standards.

SUSTAINABILITY REPORT 2019

SUPPLY CHAIN MANAGEMENT

SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

Sembcorp Marine's supply chain management plays a vital role in ensuring that our products comply with the required specifications and performance delivery. To enhance our competitiveness, our procurement strategies aim to deliver cost savings, economies of scale and operational synergies that are aligned with our customers' needs. Our procurement team sources equipment, materials, parts and other items from a global network to reduce our transportation

costs and carbon footprint while catering for projects executed at our worldwide locations.

As part of our commitment to responsible sourcing, we ensure that the items we procure fulfil environmental regulations and public health requirements, meet our compliance and sustainability standards and do not originate from conflict-affected areas.



We expect our suppliers to operate ethically and responsibly and to declare their compliance with environmental, social and governance requirements set out in the Sembcorp Marine Supplier Code of Conduct and Code of Business Conduct. To assess their credentials and reliability, our due diligence processes include pre-qualification checks and regular audits. We also collaborate with these partners to establish best practices in production, delivery and sustainability.

We innovate our supply chain processes by integrating Industry 4.0 technologies such as digitalisation to improve lead-times and efficiency. To optimise our inventory levels and reduce wastage, we actively match the supply of raw materials and consumables at our shipyards against production requirements and establish advance delivery plans with our strategic bulk suppliers.

SUSTAINABILITY REPORT 2019



Working closely with our technology partners to develop design and engineering solutions



Conducting site audits for strategic bulk material procurement



Engaging supplier delegates from Norwegian Energy Partners



Sembcorp Marine's procurement function undergoing ISO 37001 Anti-bribery Management System audit



Sharing best practices with our key suppliers





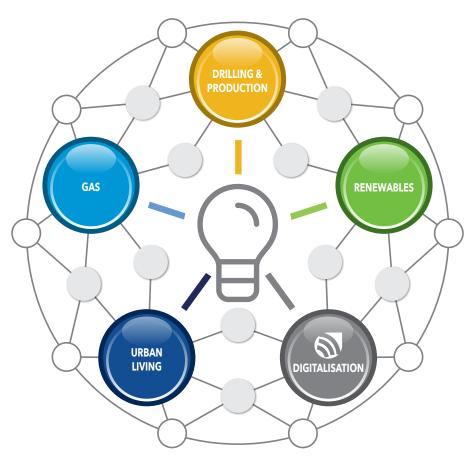
DELIVERING SUSTAINABLE AND INNOVATIVE SOLUTIONS

SUSTAINABILITY REPORT 2019

At Sembcorp Marine, we innovate continuously to develop sustainable and cost-competitive solutions that add value to our customers. In turn, we generate new income streams and create opportunities for future growth. Our pipeline of strategic technology research and solutions development programmes have led to a suite of safer, smarter and sustainable solutions.

A diversified product mix strengthens our versatility and resilience, and mitigates the cyclical risks typical of our industry. As a key business strategy, we continue to broaden our portfolio of products, services and technologies in Offshore Drilling and Production, Gas, Renewables and Urban Solutions.

OUR INNOVATION FOCUS



SUSTAINABILITY REPORT 2019

	Our Commitment	Our Efforts in 2019
Pursue new opportunities and emerging markets	Capitalise on acquired intellectual property and pursue new opportunities especially in green and sustainable products and solutions	 Secured Siccar Point FEED contract through Sevan SSP to develop cylindrical FPSO design solution for Cambo field Successfully installed first Semb-Eco LUV Ballast Water Management System (BWMS) on Transocean Norge, a semi-submersible rig
Develop greener and more sustainable products and solutions	 Develop internal capabilities in offshore production and gas solutions Generate 30% of annual revenue from sustainable products and solutions by 2025 	 Secured the design and construction of a liquefied natural gas (LNG) bunker vessel from MOL Awarded first design-and-build roll on/roll off passenger (ROPAX) ferry project Achieved 24% of annual company turnover from sustainable products
Create strategic build-and-deliver capabilities	 Invest and develop new infrastructure and enhance production efficiency and cost- savings 	 Installed a robotics steel fabrication workshop, 2 x 15,000 MT gantry cranes and an automated pipe workshop to improve production efficiency and operational safety
Build safer, smarter and sustainable shipyard	 Utilise Tuas Boulevard Yard as a living lab to test-bed and implement new advanced manufacturing technologies towards safer and more efficient products and processes Develop Industry 4.0 digitalisation capabilities to improve productivity and create smarter products 	 Collaborated with Singapore's Agency for Science, Technology and Research Industrial Internet-of-Things Innovation (A*STAR I³) in applying Internet-of-Things (IoT) to improve production efficiency Received our first certification from DNV GL qualifying our 3D printing procedures and specifications for components used in construction and repair projects



SUSTAINABILITY REPORT 2019

DELIVERING SUSTAINABLE AND INNOVATIVE SOLUTIONS

OUR FOUR KEY THRUSTS:

New Opportunities & Emerging Markets

We actively acquire new capabilities, through technology joint ventures and acquisitions, to develop new products and enter new markets. These strategic developments have translated into new products and contracts in new and emerging markets.



Award of cylindrical FPSO design

Sembcorp Marine was awarded an exclusive Front-End Engineering and Design (FEED) contract for our proprietary Sevan SSP circular hull. This hull design eliminates the need for a costly mooring turret while accommodating a larger number of risers and flexibility for future tie-ins.



Commercialisation of our proprietary Gravifloat Technologies

We continue to make good progress in commercialising our proprietary Gravifloat technologies for a variety of nearshore LNG terminal and gas infrastructure applications. Gravifloat offers high flexibility for site-specific and expandable requirements with its modularised system. Strategic installation of several modules forms a breakwater to create calmer sea conditions.

Greener & Sustainable Products & Solutions

Supported by a global team of more than 1,000 design engineers, we have developed a suite of safe, sustainable and high-specification solutions.



LNG bunker vessel designed by our subsidiary LMG Marin

This LNG bunker vessel is the largest of its kind to be built in Singapore, in terms of size and LNG tank capacity. Its two GTT Mark III Flex membrane tanks are more durable, safer for fuel transfer operations and reduce cargo loss through evaporation. The vessel's dual-fuel engine will contribute to cleaner propulsion with less carbon emissions.



Successful installation of patented Semb-Eco LUV Ballast Water Management System (BWMS)

We successfully installed our highly energy-efficient Semb-Eco LUV BWMS on Transocean Norge, a semi-submersible rig. This BWMS helps vessels mitigate the risk of invasive aquatic species in turbid or highly challenging tropical waters and hence protect ocean bio-diversity.

SUSTAINABILITY REPORT 2019

Strategic Build-and-Deliver Capabilities

We invest and develop game-changing facilities and infrastructure to automate production, resulting in faster delivery times, safer operations and enhanced quality.



Investment in game-changing facilities The 2 x 15,000 MT gantry cranes installed at Tuas Boulevard Yard are an important differentiator for Sembcorp Marine's project execution, enabling us to fabricate, assemble and install larger, heavier and more complex projects. Mega-structures such as FPSO topsides and hulls can leave the yard fully integrated, instead of being transported out in smaller parts which require further assembly.



Pushing the boundaries of production automation

As part of our smart yard development, Sembcorp Marine works closely with robotics manufacturers to customise and develop advanced robots that carry out multi-directional welding of large built-up structural blocks. This new capability is safer and more efficient and improves our product quality.

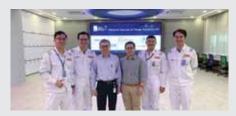
Safer, Smarter & Sustainable Shipyard

We envision a more sustainable manufacturing process and smarter products through digitalisation and automation, which are important components of Industry 4.0 development.



Advancing Additive Manufacturing

Our two-year collaboration with DNV GL, NAMIC and SIMTech paved the way for Sembcorp Marine to receive DNV GL certification qualifying our 3D printing procedures and specifications for components used in construction and repair projects. This development will allow us to unlock significant efficiencies and reduce supply chain risks, ensuring the sustainability of our operations.



Embracing new IoT technologies

Sembcorp Marine partnered with A*STAR's I³ to complete a proof of concept for applying IoT technologies to track steel materials. This development helps improve the traceability of materials, thereby enhancing overall productivity and reducing wastage.



Quantum of the Seas

In 2019, Sembcorp Marine completed overhaul and revitalisation works on Quantum of the Seas, a cruise liner operated by Royal Caribbean International. As Asia's top solutions provider for cruise ship repairs and upgrades, we continue to attract major projects from the world's leading cruise companies.







SUSTAINABILITY REPORT 2019

FULFILLING THE NEEDS OF OUR CUSTOMERS



As a provider of engineering solutions to the global offshore, marine and energy industries, Sembcorp Marine is proud of our customer-centric culture. We focus on building long-term partnerships based on a thorough and continuous understanding of our customers' requirements. By delivering safe, cost-competitive and reliable products and services that satisfy their expectations, we aspire to be our customers' partner of choice.

Our working relationships with industry players often go beyond the project scope. By collaborating with customers, vendors and suppliers in critical areas such as R&D, cyber-security, workplace safety and health, and sustainability management, we multiply our contributions across the value chain.



SUSTAINABILITY REPORT 2019

	Our Commitment	Our Efforts in 2019
Forging Strong Relationships	 Achieve high levels of economic productivity with our strong customer base and highly diversified portfolio by establishing sustainable business relationships with repeat and new customers 	 Participated in six international offshore, marine and energy marketing events, conferences and exhibitions to increase brand awareness and develop our sales pipeline. We reached out to more than 100,000 visitors globally
Reinforcing Brand Loyalty	Achieve high levels of customer satisfaction and retention through high-performance quality product solutions, health, safety and environment (HSE) compliance and sustainability, as well as operational excellence	 Met internationally recognised compliance audits for ISO 9001, ISO 45001, ISO 14001 and ISO 37001 Installed a new robotic-enabled steel fabrication facility and 2 x 15,000 MT cranes to strengthen our project execution Maintained 100% compliance with product safety and health Attained overall 95% customer satisfaction
Building Trust	 Achieve high levels of mutual trust, information confidentiality and data security, enabling effective long-term synergistic partnerships, solutions development and joint improvement 	 Supported customers' pre- and front-end engineering development projects, and co-developed new products and solutions Collaborated with classification societies to tailor cybersecurity policies and solutions for the maritime ecosystem Continued to protect customers' data and Intellectual Property (IP)

"Some \$530 million of our new orders last year - over one-third of the total - related to greener solutions, including scrubber and ballast water management system retrofits, and gas and renewable energy projects. Among them, the Group won a design-and-build contract from Mitsui O.S.K. Lines (MOL) for a 12,000 cbm capacity LNG bunker vessel."

- Extracted from Chairman and CEO's Joint Report in Sembcorp Marine Annual Report 2019



MOL LNG Bunker Vessel Strike-steel Ceremony

SUSTAINABILITY REPORT 2019

FULFILLING THE NEEDS OF OUR CUSTOMERS

New Partnerships & Contracts



Sembcorp Marine secured a floating production unit (FPU) construction and integration contract for Shell's Whale Field Development in the Gulf of Mexico. This project is testament to our yard capabilities and Shell's trust in us, following our successful bid for the Shell Vito FPU project in 2018.



We won a contract to fabricate two well-head platforms for North Oil Company-operated Al Shaheen oil field.



Sembcorp Marine signed our first repair and upgrade contract with NYK Cruises for a major refit of Asuka II, Japan's largest cruise ship.



Project management teams at the Mitsui O.S.K. Lines (MOL) LNG Bunker Vessel Strike-steel Ceremony in September 2019. This is our first LNG bunker vessel construction project.

REACHING OUT TO OUR GLOBAL CUSTOMERS AND PARTNERS





Sembcorp Marine representatives at Sea Asia 2019, a biennial exhibition attended by maritime players and international exhibitors.





Sembcorp Marine team with other delegates at Seatrade Cruise Global 2019, where we were the only Asian exhibitor.





Sembcorp Marine showcased its capabilities and innovative technologies at OTC 2019.

SUSTAINABILITY REPORT 2019

Celebrating
Key Milestones
& Achievements
together



Project management teams at the Norled Battery-powered ROPAX Ferries Strike-steel Ceremony, which took place in July 2019 at Tuas Boulevard Yard. This project marks our entry into the ROPAX ferry design and construction segment.



The Johan Castberg Floating Production, Storage & Offloading (FPSO) Vessel Keellaying Ceremony took place in March 2019 at Tuas Boulevard Yard. Our partnership with project owner Equinor strengthened Sembcorp Marine's brand in Norway.



We completed upgrading works on the 173,400 cbm Floating Storage & Regasification Unit (FSRU) BW Magna for BW LNG Pte Ltd in December 2019.





Sembcorp Marine President & CEO Mr Wong Weng Sun (left) introducing our projects to Senior Minister of State for Transport, Dr Lam Pin Min.





Mr Alfred Moujaes (second from right), Managing Director of Sembcorp Marine Gas & Process Solutions, interacting with visitors.





Sembcorp Marine attended the Offshore Energy Week 2019 in Amsterdam, the Netherlands.

SUSTAINABILITY REPORT 2019

FULFILLING THE NEEDS OF OUR CUSTOMERS

Our **Deliveries** in 2019



Distinguished guests with senior management of Sembcorp Marine and Heerema Marine Contractors at the Naming Ceremony for the Sleipnir. Our successful completion of this vessel demonstrates the Group's ability to deliver world-class projects that meet the best safety, quality and environmental standards.



Senior management of Sembcorp Marine and Helix Energy Solutions Group at the Naming Ceremony for the Q7000 well intervention semi-submersible rig. The vessel's -20°C structural design temperature demonstrates Sembcorp Marine's advanced engineering solutions for deeper, colder and harsher operating environments.



Our Estaleiro Jurong Aracruz (EJA) yard crossed a significant operational milestone in September 2019 with the completion of the Petrobras P-68 FPSO, its first floating production, storage and offloading project. In completing this project, EJA cements its status as a premier facility in Brazil capable of taking on full engineering, procurement, construction and commissioning work for large-scale offshore projects.

Repaired & upgraded **280** vessels with a total revenue of **\$605** million

Set a NEW industry record of **55** LNG-related Repairs & Upgrades Contracts in a single year Retained our position as Asia's TOP cruise vessel repair and upgrading company with **16** projects completed in 2019

Secured more than **200** orders for ballast water management system and gas scrubber retrofits

SUSTAINABILITY REPORT 2019

Trusted Partner in Advanced Technologies for a Sustainable Future



The unique membrane tanks of the 12,000 cbm Liquefied Natural Gas (LNG) bunker vessel, constructed for our customer MOL, will be fabricated under a licensing agreement with LNG containment specialist GTT. This project strengthens our track record in LNG-related engineering designs and solutions.

In 2018, Sembcorp Marine won a contract from Ørsted to build two topsides (right) for the Hornsea 2 Offshore Wind Farm in the UK North Sea.

We continue to strengthen our position in the renewable energy segment, partnering with Jan De Nul N.V. in 2019 to fabricate 15 jacket foundations for the 378MW Formosa 2 Offshore Wind Farm in Taiwan.





Sembcorp Marine's design and construction of three identical battery-powered ROPAX ferries for Norled AS showcase our zero emission energy solutions.





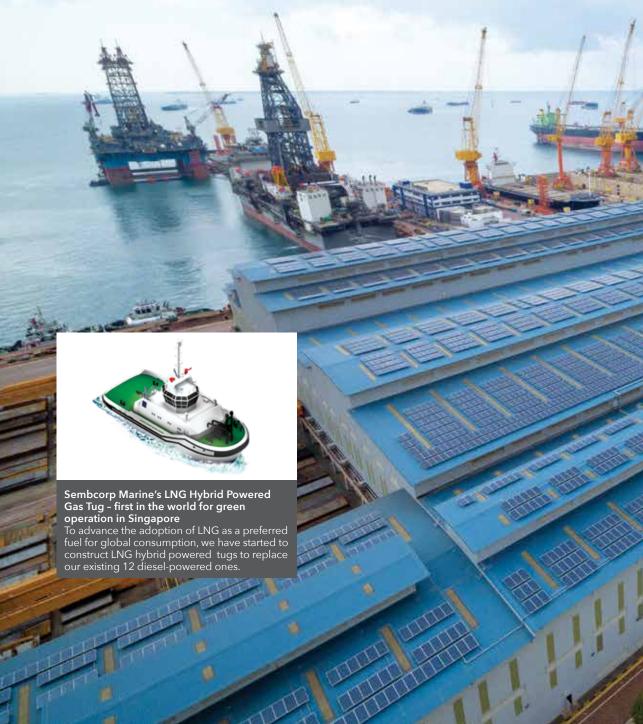














SUSTAINABILITY REPORT 2019

ADDRESSING ENVIRONMENTAL CHALLENGES



At Sembcorp Marine, we are actively managing the risks and opportunities brought about by climate change, ocean ecosystem degradation and resource availability.

We reduce emissions by operating more efficiently and increasing the proportion of renewable energy in our total energy use. With two of our largest yards already ISO 14001-certified, our environmental management goes beyond compliance with applicable laws, regulations and standards. By focusing on three key areas in our environmental programme, namely Climate, Earth and Ocean, we are constantly exploring new ways to improve our practices and minimise the environmental impact of our operations.

Sembcorp Marine, together with our sustainability partner Carbon Care Asia, has jointly developed a methodology to quantify our indirect carbon emission savings. This methodology provides a quantifiable assessment of the carbon dioxide equivalent (CO_2 e) savings attributable to our low-carbon energy solutions, including LNG-battery hybrid tug boats and battery-powered vessels.

In July 2019, Sembcorp Marine delivered the semi-submersible crane vessel (SSCV) Sleipnir to our customer, Heerema Marine Contractors. Sleipnir is the world's first dual-fuel crane vessel with engines running on MGO and LNG for sustainable operation across all environmental jurisdictions.

"Sleipnir scores several firsts in the industry: It is the largest crane vessel yet built; it has the strongest pair of revolving cranes; and it's also the world's first crane vessel with dual-fuel engines running on MGO and LNG, dramatically reducing harmful emissions. Sleipnir's innovative capabilities will place Heerema even firmer at the forefront of developments in the offshore oil, gas and wind energy industry for both installations and decommissioning."

- Mr Pieter Heerema, Chairman of the Board at Heerema Marine Contractors



Singapore's first ship-to-ship LNG bunkering was carried out on Sleipnir in 2019

SUSTAINABILITY REPORT 2019

Our Commitment

© CLIMATE

- Increase the proportion of renewal energy in our yard operations total energy use
- Replace diesel-powered mobile equipment with electric-powered or gas-powered equipment

Our Efforts in 2019

- Our 4.5MWp solar panels installed at Tuas Boulevard Yard are fully operational
- New corporate building at Tuas Boulevard Yard received Green Mark Gold standard certification⁵ from the Building and Construction Authority (BCA) of Singapore
- Started our tug fleet renewal programme. Sembcorp Marine's new liquefied natural gas (LNG) hybrid powered tugs will reduce greenhouse gas (GHG) emissions by 30% from our current diesel-powered fleet. We will operate our first hybrid tug in 2020



- Prevent and reduce marine pollution, including marine debris
- Sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impact
- Prevent and reduce the impact of invasive alien species on water ecosystems
- No significant fines arising from noncompliance with environmental laws and regulations and no significant oil spills
- Seabin, a floating debris collector, was piloted at Admiralty Yard in Singapore to remove marine plastics and debris from surrounding waters
- Our Brazilian subsidiary Estaleiro Jurong Aracruz (EJA) participated in beach and mangrove cleaning activities along Piraqueacu River



- Sustainable management and efficient use of natural resources
- Reduce waste generation through elimination, prevention, reduction, recycling and reuse
- Achieve environmentally sound management of chemicals and hazardous waste
- Rolled out our Eliminate, Reduce, Reuse, Recycle, Recover (E4Rs) Programme at Tuas Boulevard Yard and Admiralty Yard
- Achieved 100% contract responsible procurement spend
- Continuing efforts towards ISO 50001 certification
- Organised an Environmental Awareness Campaign at Tuas Boulevard Yard with our customer Transocean
- Launched 'For People Awareness' Programme at EJA
- EJA recycled oil drums for solid waste collection

⁽⁵⁾ The Green Mark Gold standard certification is part of the BCA Green Mark Scheme launched in 2005 as an initiative to drive Singapore's construction industry towards more environment-friendly buildings.

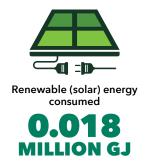
SUSTAINABILITY REPORT 2019

ADDRESSING ENVIRONMENTAL CHALLENGES

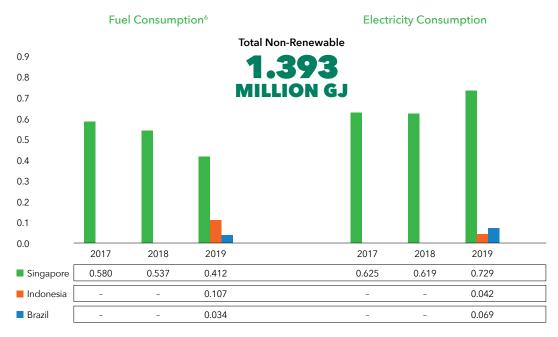
CLIMATE

To manage the environmental challenges associated with climate change, Sembcorp Marine reduces GHG emissions by streamlining our operations to harness energy and other resources more efficiently. We reinforced our commitment to carbon emission reduction by introducing the Climate Action Programme in all our yards in 2019.

Our Sustainability Report 2019 covers energy consumed by Sembcorp Marine yards in Singapore, Brazil and Indonesia. Our energy sources include electricity, diesel, LPG, CNG, acetylene and renewable solar energy. Our total energy consumption in FY2019 amounted to 1.411 million GJ, with electricity consumption accounting for approximately 59.6% of energy use.



Energy Consumed from Non-Renewable Sources (million GJ)



⁽⁶⁾ Net calorific values (NCV) were sourced from Emission Factors for Cross Sector Tools (March 2017). NCV for acetylene was referenced from S. McAllister et al., Fundamentals of Combustion Processes (2011).

 $^{^{\}prime\prime}$ - $^{\prime\prime}$ Figures for Indonesia and Brazil were not available for 2017 and 2018.

SUSTAINABILITY REPORT 2019

To get a better representation of our energy usage efficiency, we began measuring our energy use based on man-hours of operation in Brazil, Indonesia and Singapore in FY2019. Our energy intensity was 0.117 million GJ/man-hour for the year.

Sembcorp Marine's direct GHG emissions from sources we own or under our direct control, including fuel for vehicles, generators and air compressors (Scope 1), and indirect emissions from electricity consumption (Scope 2) are shown below. We have used the operational control approach to identify the GHG emissions. The boundaries of our reported emissions currently comprise our shipyards operating in Brazil, Indonesia and Singapore, excluding joint ventures.



Solar panels installed at Tuas Boulevard Yard generated 5,052 MWh of electricity, equivalent to:

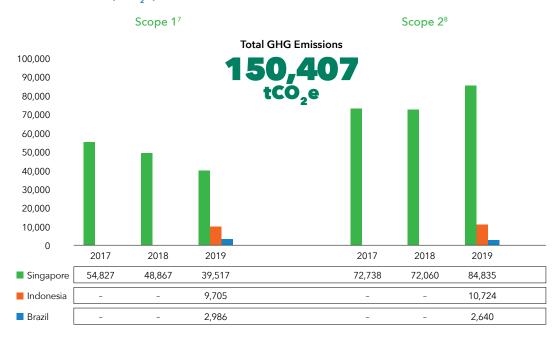
Avoiding emissions of approximately

>**2,100** tCO₂e Sufficient energy to power about

1,100

4-room flats for one year

GHG Emissions (tCO₂e)



- (7) Emission factors (EF) were sourced from Emission Factors for Cross Sector Tools (March 2017). The scope 1 calculations for 2017 and 2018 have been restated due to revised emission factors used for the fuels. Only CO₂ CH₄ and N₂O emissions are included in the calculation of direct GHG emissions. Global Warming Potential (GWP) factors used are from the 2014 IPCC Fifth Assessment Report. Emission data is derived from combustion of non-renewable fuels consumed in our yards and follows the requirement of GHG Protocol.
- (8) Grid EF for Singapore was obtained from Energy Market Authority (EMA), grid EF for Brazil and Indonesia were obtained from Institute for Global Environmental Strategies (2019) - List of Grid Emission Factors version 10.6. Scope 2 emissions for Singapore for 2018 has been restated based on latest Grid EF obtained from Energy Market Authority (EMA). Only CO₂ emissions are included in the calculation of indirect GHG emissions. Emissions data is derived from purchased electricity consumed in our yards and follows the requirement of GHG Protocol.
- " " Figures for Indonesia and Brazil were not available for 2017 and 2018.

SUSTAINABILITY REPORT 2019

ADDRESSING ENVIRONMENTAL CHALLENGES

The Green Mark Gold standard certification awarded to our Corporate Office recognises our best practices in environmental design and performance. All our yards have also adopted these practices in their workshops and offices.



AC variable voltage and variable frequency (VVVF) motor drive

with sleep mode features has been implemented on lifts and escalators to reduce electricity consumption.



Efficient Irrigation System

has been implemented to drip water onto plants at a controlled rate closer to soil level. The system is also fitted with rain sensors that reduce water usage when it rains.



Chiller Plants

are designed to have a maximum energy efficiency of 0.6kW/RT, which means 0.6kW or less electricity is consumed with each tonne of cooling.





Recycling Bins

are available for waste from daily work processes, such as plastic, paper and cans.



Compost Bins

are installed to combine landscape waste, dried plants and food waste for use on site, reducing the need for artificial compost.



Naturally Ventilated

multi-storey car park reduces the load on mechanical forms of ventilation.

SUSTAINABILITY REPORT 2019

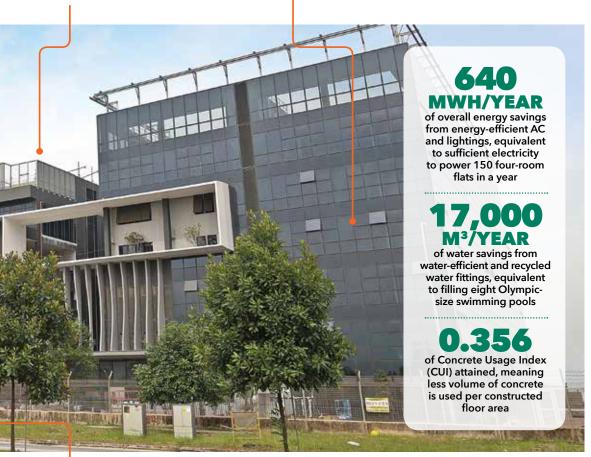


AC system designed with super-efficient cooling towers

that can run higher cycles of concentration to reduce the amount of water used. Condensate collected from the air handling units is also recycled.



are used in all areas and controlled by presence and motion sensors to reduce energy consumption.





with six lots in the car park designed for electric vehicle parking and charging, 80 sheltered bicycle parking lots and shared transport.

SUSTAINABILITY REPORT 2019

ADDRESSING ENVIRONMENTAL CHALLENGES

OCEAN

According to UNESCO, nearly 3 billion people around the world depend on marine and coastal biodiversity for their needs. The ocean absorbs approximately a third of the carbon dioxide produced by humans, which helps negate the impact of climate change? Many of our products and solutions operate at shore and near shore. Some are deployed across the world's oceans, including the fragile arctic frontier. With this in mind, Sembcorp Marine has implemented responsible corporate practices, policies and programmes as part of our ocean conservation efforts.

We also make sure our production operations comply with discharge requirements. We conduct emergency exercises to maintain our response preparedness to accidental spills. In 2019, Sembcorp Marine neither incurred any significant fines from non-compliance with environmental laws and regulations, nor caused any significant spills.

As a responsible ocean citizen, Sembcorp Marine removes marine plastics and debris from surrounding waters that drift into our yards seasonally. Over the years, we have removed more than 100 tonnes of waste material to protect marine wildlife. Our employees regularly participate in beach and mangrove cleaning activities.

We support and organise community activities that contribute and protect the marine and coastal ecosystems from pollution. Sembcorp Marine's Ocean Community Engagement Programme contributes to a cleaner environment for marine wildlife to thrive in waters surrounding our yards.



To commemorate the 2019 World Cleanup Day, EJA employees participated in beach and mangrove cleaning activities along the Piraqueacu River



In July 2019, we installed a Seabin device (above) at our Admiralty Yard in Singapore to remove floating debris from waters around the shipyard. The collected debris and trash, such as plastic particles, pellets and wrappers, were disposed of through environmentally-responsible methods. The Seabin helped remove 240kg of floating debris in the second half of 2019.

EARTH

Sembcorp Marine consumes material and equipment in our core operational activities, which comprise offshore engineering and construction, ship repairs and conversion and specialised shipbuilding. These activities produce waste and emissions that impact the environment.

Due to climate change, water is also becoming increasingly scarce globally 10. The Group recognises these challenges. We are committed to using our precious resources responsibly and we take necessary action to reduce our environmental footprint.

- (9) https://en.unesco.org/news/deep-sea-marine-science-key-unlocking-potential-our-oceans
- (10) https://www.unwater.org/water-facts/climate-change/

SUSTAINABILITY REPORT 2019



Sembcorp Marine's E4Rs programme promotes sustainable living

E4Rs represent:

- Eliminate: Remove any unnecessary use of resources or substitute with environmentallyfriendly resources
- Reduce: Use only what you need
- Reuse: Reuse materials that are in usable conditions for their original or new purpose
- Recycle: Convert waste into useful products
- Recover: Recover materials or energy from waste which cannot be reduced, reused or recycled

Our key raw materials include steel, copper, welding materials and paint products. We source and choose our materials responsibly during the solutions development, engineering and procurement stages of our project management. In 2019, the total non-renewable materials used by the Group amounted to 1,904,959 metric tonnes, compared to 1,699,320 metric tonnes in 2018. The non-renewable materials used include steel, copper grits and steel grits.

We have put in place environmentally-responsible waste disposal processes in our Singapore yards, including the use of licensed waste management vendors. Estaleiro Jurong Aracruz (EJA) in Brazil also reuses oil drums for solid waste collection, helping us avoid approximately 8,320 kg of metal waste in FY2019.

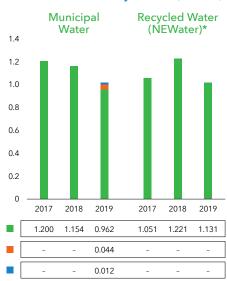
Besides monitoring water consumption closely during our operations, we conduct regular checks to reduce leaks in our shipyards' water networks. In 2019, Sembcorp Marine used 2.149 million m³ of water. By investing in new technology and adopting water efficiency practices such as using seawater for gearbox cooling, we achieved a 9.5% reduction in the consumption of municipal water and NEWater*, compared to 2018.

Waste by type (gigatons)



^{*}The figure for non-hazardous waste in 2018 has been restated to account for waste generated by our customers' vessels, which was previously excluded.

Water withdrawal by source (mil m³)



^{*} Recycled water (NEWater) is used only in Singapore.

[&]quot; - " Figures for Indonesia and Brazil were not available for 2017 and 2018.





SUSTAINABILITY REPORT 2019

NURTURING OUR HUMAN CAPITAL

People are at the heart of our business. We embrace the diversity and expertise that our employees bring to the Group and are committed to their growth, well-being and safety. We also respect human rights across our operations and value chain, aligning our human rights practices to various national and international frameworks.

Sembcorp Marine's philosophy of providing a conducive work environment is in keeping with several United Nations Sustainable Development Goals.

OUR HUMAN CAPITAL STRATEGY FOCUSES ON FIVE KEY AREAS:



Sembcorp Marine strives to be an employer of choice

SUSTAINABILITY REPORT 2019

	Our Commitment	Our Efforts in 2019
Fair Employment & Equal Opportunities	Practise zero discrimination policy and build a diversified and inclusive workplace	 Pledged our commitment to Sustainable Employment Practices proposed by Singapore Business Federation
		 Estaleiro Jurong Aracruz (EJA) celebrated the social, economic, cultural and political achievements of women on International Women's Day 2019
Talent Planning & Leadership Development	 Tap talent globally and groom leaders 	Established a new profiling method for assessing employees' competencies
		 Conducted Sembcorp Marine-Singapore Management University (SMU) Leadership programmes for the 4th year
		 Introduced the Mentorship Programme, an initiative pairing new and current employees with experienced professionals
Workforce Capability & Competency Development	 Instil a lifelong learning culture and develop a capable and competent workforce 	 Achieved 45 training hours per employee globally with a total of \$4.7 million training investment made
		 Implemented Augmented Reality-Virtual Reality (AR-VR) technology for gas containment system training and other LNG technical programmes
		 Attained the ISO 29990 Learning Service Provider (LSP) certification for conducting courses in general trade, hot works trade and painter trade
		 Signed a tripartite Memorandum of Understanding with Shipbuilding and Marine Engineering Employees' Union (SMEEU) and the Employment and Employability Institute Pte Ltd (e2i) to raise worker employability through skills and talent development, particularly in digital readiness
Employee Engagement & Well-being	Promote work-life balance and improve employees' well-being	 Implemented flexible work arrangement policies to help employees balance work and personal commitments
		 Provided employees with on-demand transport service between home and office
		Set up Workers' Welfare Committee to enhance communication and engagement
Human Rights Principles & Practices	 Respect globally recognised human rights principles 	 Formulated framework to align practices with globally recognised principles i.e. Building Responsibly and ETI Code
		Enhanced recruitment practices with adoption of "Employer Pays Principle" (EPP)

SUSTAINABILITY REPORT 2019

NURTURING OUR HUMAN CAPITAL

FAIR EMPLOYMENT & EQUAL OPPORTUNITIES

Sembcorp Marine is a signatory to the Tripartite Guidelines on Fair Employment Practices in Singapore.

We practise sustainable employment by fostering an inclusive culture and an equal-opportunity work
environment that respects our employees' diversity and rights.



Operating in a traditionally male-dominated industry, we aim to close the gender gap with an increased representation of women in senior leadership roles.

15%

of our Singapore executive workforce in *Operations* roles are female

39%

of our Singapore executive workforce in Commercial and Corporate Services roles are female



Sembcorp Marine also values the depth of knowledge and experience that people beyond the statutory retirement age can offer.

346

contracts were offered in 2019 to people past the statutory retirement age in Singapore

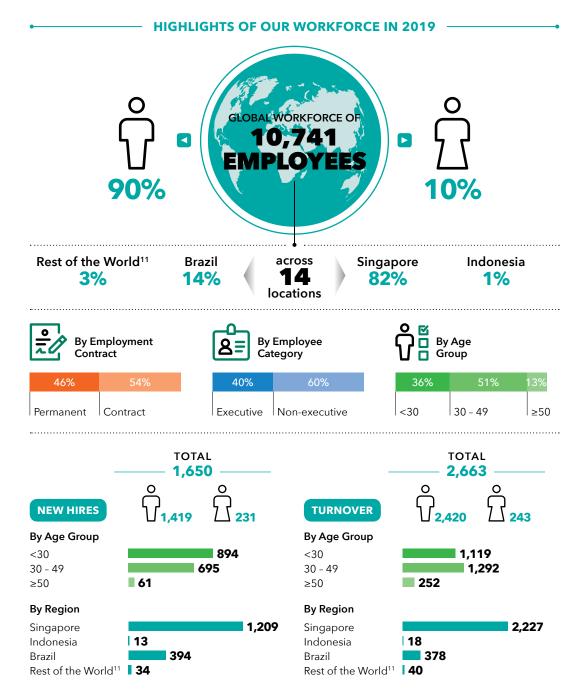


Our diverse workforce goes beyond a mix of age and gender to include those with special needs.

At Sembcorp Marine, we actively promote equality among employees of diverse backgrounds through our Inclusion of Disabled Persons Programme.

The workforce at our Brazilian subsidiary Estaleiro Jurong Aracruz includes staff with special needs working in various functions, such as administration and operations.

SUSTAINABILITY REPORT 2019



SUSTAINABILITY REPORT 2019

NURTURING OUR HUMAN CAPITAL

TALENT PLANNING & LEADERSHIP DEVELOPMENT

Identifying talent requirements and succession-planning are key considerations in Sembcorp Marine's strategic workforce planning. They are integral to our long-term goals and sustainability, especially for key positions in the Group. In 2019, we enhanced our succession-planning framework with detailed profiling of roles. This has helped us assess our competency gaps more effectively.



Training and development play an important part in Sembcorp Marine's efforts to build a competent and resilient workforce.



Job rotation and overseas assignments give our employees international exposure as part of their career development.



Our Global Leadership Development Programme, curated by the Singapore Management University, provides classroom leadership training for different managerial levels.



We appraise our employees' performance through an open review process annually.

employees were seconded to our overseas subsidiaries 2,255

of our current employees have undergone the leadership programme

9,752

of our workforce received performance appraisals and career development reviews



To attract talent with specialised knowledge and capabilities catering to our business segments and geographical markets, we reach out to a wide talent pool through career talks, job fairs and outreach activities in schools, communities and tertiary institutions. In Singapore, the Group offers industrial placements to students from institutes of higher learning.



job fairs



interns attached to our yards in Singapore



scholarships offered to students from various institutes

SUSTAINABILITY REPORT 2019

WORKFORCE CAPABILITY & COMPETENCY DEVELOPMENT

We actively develop our workforce competence and promote a culture of continuous improvement and organisational excellence.

To facilitate our employees' holistic development and empower them to achieve their highest potential, every job role in the organisation is mapped on to our four key learning thrusts:

- Total Workplace Safety & Health (WSH) Excellence;
- Skills & Competence;
- Innovation & Productivity; and
- Growth & Development.

Given the constantly changing market demands and technological disruptions in our industry, a highly skilled workforce readies the Group for new challenges and opportunities. We up-skill and re-skill our people on digitalisation, which prepares them for the future of work in an Industry 4.0 environment.

RE-SKILLING & UP-SKILLING OUR WORKFORCE FOR THE FUTURE



\$4.7 MILLION

invested in our global workforce training and development



484,711

employee-training hours globally



Average training hours by employee category

Executive 17

Non-executive

Average training hours by gender

 $^{\circ}_{\text{ho}}$

0 31 hours



Mr. Lin Zewei, an ex-production head, was among the first batch of PCP participants at Sembcorp Marine. With the knowledge and soft skills gained from the course, he was able to transition successfully to his current position as a Senior Project Manager.

Since the launch of the Professional Conversion Programme (PCP) in 2018, Sembcorp Marine has been one of its key supporting companies. The PCP is a pathway for workers in Singapore to re-skill and up-skill themselves for new positions, through industry-recognised training programmes. In 2019, 38 of our employees from the Professionals, Managers, Executives and Technicians (PMET) category and new non-marine entrants completed the programme.

SUSTAINABILITY REPORT 2019

NURTURING OUR HUMAN CAPITAL

EMPLOYEE ENGAGEMENT AND WELL-BEING

At Sembcorp Marine, we value open communication and engage our employees through various channels including regular dialogue sessions, briefings, workshops, newsletters and memos. Through these communications, we share our company's new initiatives and development and gather useful feedback from our employees.



SWATBIZ Briefing: To reduce our employees' commuting time, we introduced SWATBIZ, an app-based on-demand service for booking bus transport between home and office.



Certificates presented to nominees of Workers' Welfare Committee.



Sembcorp Marine's Dolphin newsletter keeps our employees updated on the latest company developments.

To support employee health and well-being, we provide a comprehensive programme of healthy lifestyle activities and amenities.



Health & Wellness Programme

- In-house gymnasium caters for exercise workouts and wellness activities including Zumba and yoga
- Pre-retirement talks to help our older employees transition smoothly to retirement



Amenities in Tuas Boulevard Yard Corporate Office

- Open office concept with ergonomic workstations
- Collaboration and communal spaces
- Nursing rooms
- Built-in canteen
- Facial recognition entry
- Smart elevators



Foreign Workers' Welfare and Inclusion Programme

- We work with the Singapore Police Force to hold regular activities that promote crime awareness
- We organise flea markets, fruit fairs and multi-agency/ vendor roadshows at our dormitories
- We arrange sporting events such as badminton and cricket training and competitions

SUSTAINABILITY REPORT 2019

UPHOLDING HUMAN RIGHTS

INTERNATIONAL STANDARDS & PRINCIPLES

Universal Declaration of Human Rights UN Guiding Principles on Business & Human Rights International Covenant on Civil & Political Rights

ILO Declaration on Fundamental Principles & Rights at Work Building Responsibly Worker Welfare Principles

ETI Base Code International Covenant on Economic, Social & Cultural Rights

SEMBCORP MARINE'S POLICY

Human Resources Policy Code of Business Conduct

Supplier Code of Conduct

Collective Bargaining Agreements

SEMBCORP MARINE'S COMMITMENT & FOCUS

Labour Rights

- Industrial Relations Act
- Freedom of Association
- Fair Labour Practices
- Human Rights in Supplier Value Chain
- Rejection of all forms of discrimination, modern slavery, bonded labour, child labour, forced labour, human exploitation and unethical practices

Employee Rights

- Singapore's Tripartite Guidelines on Fair Employment Practices
- Sustainable Employment Practices by Singapore Business Federation
- Fair Employment and Equal Opportunity
- Employer Pays PrincipleGrievance Management
 - System



Sembcorp Marine respects internationally recognised Human Rights standards and principles and aligns our labour practices with international standards and principles. Our commitment to Human Rights is articulated in Sembcorp Marine's Human Resource policies which follow the social performance guidelines in the SA8000 standard. These policies advocate fair treatment of employees and responsible employment practices. The Sembcorp Marine Code of Business Conduct and Supplier Code of Conduct further encapsulate our Human Rights expectations on employees, vendors and suppliers.





SUSTAINABILITY REPORT 2019

PROTECTING OUR PEOPLE

Work accidents and occupational diseases are avoidable. With a strong prevention culture, we strive to eliminate the hazards and risks that can cause work-related accidents and occupational diseases. Sembcorp Marine's Workplace Safety and Health (WSH) 2028 Vision Zero incidence goal is an important foundation of the Group's work ethos. Executed via a robust and audited Health, Safety and Environment (HSE) integrated management system, we aim to eliminate harm to people, property and the environment. To achieve our goal of zero deaths and serious injuries by 2028, we have developed a set of HSE strategic thrusts that guide our actions.

Sembcorp Marine HSE Strategic Thrusts¹²



Principles of our Vision Zero Commitment¹²



- Reduce risks at source;
- Place WSH duty on all stakeholders in their respective functional areas; and
- Prevent accidents through higher penalties.

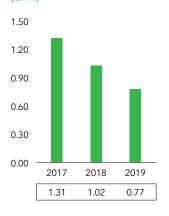
Safe and healthy working conditions have a positive impact on the motivation of employees, the quality of our work and commercial solutions, our reputation, as well as the satisfaction levels of customers and other important stakeholders. All these factors in turn affect Sembcorp Marine's economic success. We have implemented the Sembcorp Marine Vision Zero strategy with active contribution from all our stakeholders. We have a clearly communicated safety policy, safety leadership capabilities, standardised and repeatable safety management systems, and an engaged workforce that is properly informed and adequately trained on the hazards of their jobs and how to perform their work safely.

Our Commitment Our Efforts in 2019 Deepen WSH Protect labour rights and promote Sembcorp Marine yards in Singapore and Indonesia achieved ISO 45001 Ownership safe working environments for all workers, through continuous Occupational Health and Safety enhancement of HSE competencies Management System certifications and capabilities Received 24 WSH awards from Develop effective, accountable and various bodies Achieved 100% participation rate for transparent institutions at all levels by cultivating positive WSH Culture safety induction for all yard visitors and emphasising WSH ownership Recorded a lost time injury rate of Focus on Workplace Prevent occupational diseases and Health advocate the importance of good 0.77 and Total Recordable Injury rate of 1.52 per million man-hours worked industrial hygiene practices at the workplace to reduce the incidence EJA launched 'Risk Factor' and of ill health 'Bosom Friend' programmes to raise WSH competency and culture WSH Advancement Innovate, adopt and embrace Introduced 3D Robotic Welding Un-manned Complex, Hull with Technology technology for WSH improvement Treatment Carrier-System Double (HTC-SD) and Drones

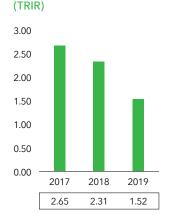
SUSTAINABILITY REPORT 2019

Singapore and Overseas¹³

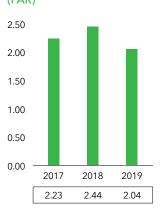
Lost Time Injury Rate per million man-hours worked14 (LTIR)



Total Recordable Incident Rate per million man-hours worked14



Fatal Accident Rate per 100 million man-hours worked14 (FAR)



Singapore

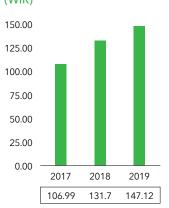
Accident Frequency Rate per million man-hours worked (AFR)



Accident Severity Rate per million man-hours worked



Workplace Injury Rate per 100,000 employed persons (WIR)



Sembcorp Marine ended 2019 with a lost time injury rate of 0.77 and total recordable injury rate of 1.52. Despite our efforts during the year, we had two workplace fatalities in our yards.

In 2020, we will continue to focus on health and safety awareness training to help our employees better understand their safety responsibilities. We will also reinforce the vital importance of safe work practices.

SUSTAINABILITY REPORT 2019

PROTECTING OUR PEOPLE

DEEPEN WSH OWNERSHIP

Good WSH performance requires strong ownership from all stakeholders, a holistic system with clear policies and procedures for implementing and building safety competency and a culture of prevention, trust and care.

WSH Ownership and Accountability

Sembcorp Marine's WSH framework is championed by the Sembcorp Marine Board and Management, employees, contractors and other stakeholders. While the Board Risk and Enterprise Risk Committees steer the HSE policies, framework, procedures and control processes, the Group HSE Committee, together with various sub-committees at the yards, is responsible for developing and deploying the strategies and work plans.

In 2019, yard-level HSE committees comprised over 500 management and worker representatives. They collectively represented 100% of more than 45,000

Sembcorp Marine employees and contractors. These committees are responsible for engaging the workforce in HSE programmes.

We have a clearly communicated safety policy, safety leadership capabilities, standardised and repeatable safety management systems, and an active and engaged workforce that is properly informed and adequately trained on the hazards of their jobs and how to perform their work safely. Our communication channels include Daily Toolbox Meetings, Vessel Safety Coordination Committee Meetings, Monthly WSH Committee Meetings and Monthly WSH Sub-committee Meetings.

Cultivate Positive WSH Culture

In 2019, we rolled out HSE Life Saving Rules, an important WSH culture-building programme that helps prevent injuries for high-risk activities at the workplace. It requires all direct employees, contractors, visitors and client representatives to identify critical controls that must be in place.



HSE LIFE SAVING RULES

Safety Starts with Me.

















ALWAYS REMEMBER



CARE



Safe Entry into Confined Space



Get
Authorisation
before Starting
Hazardous Work



Isolate, Lock-out and Tag-out Energy Source



Conduct Safe Lifting Operations



Contain, Secure and Prevent Falling Objects



Hook-up and Work Safely at Height



Abide by HSE Signage and Road Safety

SUSTAINABILITY REPORT 2019

Continuous Enhancement in HSE Competencies and Capabilities

Previously certified to OHSAS 18001 Occupational Health and Safety Management System, Sembcorp Marine yards in Singapore and Indonesia have transitioned to the ISO 45001 certification. With the new certification, our management

commitment, employee involvement and risk control programmes are enhanced. Sembcorp Marine's Estaleiro Jurong Aracruz (EJA) facility in Brazil is currently preparing for the ISO 45001 certification.

Hazard Prevention and Mitigation

A comprehensive Hazard Prevention and Mitigation Policy guides the Group's system of hazard identification, risk categorisation, risk assessment matrix, action and controls. We conduct an annual Review, Educate and Validate (REV) programme, through which our yards and their contractor partners address evolving key risks. We also carry out joint site inspections with our customers. Key risks identified include fire and explosions, collapse of structures, and work-at-height and electrical hazards.

Our annual review of the Group's incident and near-miss records against industry benchmarks helps us identify the most common occurrences. We also maintain statistics on the types of accidents and occupational diseases encountered in our facilities. For internal learning and prevention purposes, we regularly update our staff on internal workplace accidents and occupational diseases.

Training and Competency

All Sembcorp Marine personnel must be competent and possess the necessary knowledge, skills and behaviour to perform their work safely. We also require visitors, subcontractors and other stakeholders entering our yards to go through an HSE Induction programme. In addition, our employees attend in-house training on hot

work, confined space, lifting, working with machinery and fire warden responsibilities. Sembcorp Marine subcontractors attend these sessions at no cost.

In 2019, we invested 55.5% of total worked hours on HSE training, compared to 60% in 2018

RISK FACTOR



From November 2018 to April 2019, EJA engaged Dupont Sustainable Solutions to launch a 'Risk Factor' Programme that helped the yard systematically improve its employees' safety and well-being. Dupont worked closely with EJA's Internal Security Committee and HSE Management to prevent workplace incidents and injuries, and cultivate workplace safety excellence among employees - from yard workers to the top management.



EJA launched the 'Programa Amigo do Peito', or the Bosom Friend Programme on Feb 15, 2019, pairing employees as a single unit so that they can remind and caution one another to adhere to safety standards and applications.

SUSTAINABILITY REPORT 2019

PROTECTING OUR PEOPLE

FOCUS ON WORKPLACE HEALTH

Total WSH is the holistic and integrated approach to managing interactions between work, safety and health to promote the well-being of workers and employees. A safe workplace reduces the risk of injury and ill-health, leading to better worker well-being, a more productive workforce and superior quality of our commercial deliverables.

Occupational Health Risk Mitigation

Besides strengthening the prevention of workplace injuries and occupational diseases, we step up efforts to address lesser known issues, such as how workers' inherent health conditions can affect safety outcomes at work, or can be aggravated by work conditions.



Proactive Incident Prevention

We enhance leadership and ownership, including up-skilling our WSH Professionals and supervisors so that they are empowered to identify, supervise and check individuals with health conditions that affect their work on-site.

Besides improving our management of personal health risk and occupational disease risk, we also adopt measures to reduce occupational disease incidence.



Create Safe & Supportive Environment

We create a flexible and adaptive environment for individuals to realise their abilities, cope with normal life stressors and work productively.

We conduct regular environmental checks to ensure air quality and sound levels are within safe limits.

We have a fumigation and vectors elimination programme for vector-borne diseases such as dengue to eliminate potential breeding grounds.



Emergency Contingency Plan

We have a system for preventing and recovering from potential threats such as major workplace accidents, pandemic outbreak, cybersecurity and terrorist attacks. These plans ensure that personnel and assets are protected, without affecting yard operations in the event of a disaster.

In 2019, over 125 emergency response drills and exercises were conducted together with local government agencies.

Resilient Workforce - Employee Health and Wellness Programme

We build and sustain our wellness programmes and services to improve the health and resilience of our workforce.



Workplace Health & Wellness Programme

We offer our employees complimentary corporate health screening services at our Health Management Centre, job matching and adaptation, ergonomic assessments and health coaching to support our employees' well-being.

Please refer to page 42 (under Human Capital) of our Sustainability Report 2019 for more details.



First Aid Training

We equip our employees and contractors with first-aid knowledge and skills for rendering first-response medical assistance. Occupational first-aid training, including the use of automated external defibrillators (AED) and cardiopulmonary resuscitation (CPR), is held regularly.



Health Management Centre

The Health Management Centre in all our yards are staffed by occupational doctors, nurses and other healthcare personnel. This centre provides medical services and other health examinations; occupational health monitoring such as hearing conservation and respiratory protection; and counselling support for managing physical and mental issues.

SUSTAINABILITY REPORT 2019

WSH ADVANCEMENT WITH TECHNOLOGY

Technological developments continuously impact our daily lives with new tools and resources that help us stay connected, manage our work and track our health. At Sembcorp Marine, we actively leverage technology to improve safety conditions for our employees and contractors.



3D Robotic Welding Un-manned Complex The 3D Robotic Welding Shop at Tuas Boulevard Yard has robotic welding machines enabled by advanced software to perform automatic welding and minimise our workers' exposure to physical and

electrical hazards.



Hull Treatment Carrier (HTC) Utilising Robots
The Hull Treatment Carrier-System Double (HTC-SD) is a fully automated, self-navigating robotic system that eliminates the need for workers to work at height beside flat shipside surfaces. Only one operator is stationed at the base to control the system operations. This helps avoid exposure to at-height risks and chemical hazards.



Drones for Safety and Quality Inspection

The use of drones is especially advantageous for our employees to carry out inspections and surveillance surveys while avoiding exposure to at-height risks.

















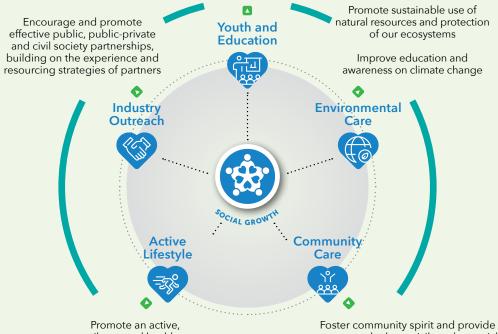


SEMBCORP MARINE SUSTAINABILITY REPORT 2019

CARING FOR OUR COMMUNITIES

OUR COMMITMENTS

Support strategies and efforts to provide equal access to education and learning opportunities for youths and adults to acquire technical knowledge and vocational skills



Promote an active, vibrant and healthy community

Foster community spirit and provide support to the less privileged to enrich their lives, including building and upgrading educational facilities that are child-, disability- and gender-sensitive, and providing safe, non-violent, inclusive and effective learning environments for all

SUSTAINABILITY REPORT 2019

Creating Positive Impact on Our Communities

Sembcorp Marine recognises the importance of active involvement in the community. By contributing towards community improvement and social advancement, we extend our positive influence as an agent of change and value creation.

Our community engagement strategy, which is aligned with the United Nations Sustainable Development Goals and ISO 26000 Guidance on Social Responsibility, has five focus areas: Youth and Education; Environmental Care; Community Care; Active Lifestyle; and Industry Outreach.

We monitor the needs of the local communities in our global operations and implement programmes that create positive impact for our stakeholders. Regular reviews are conducted to ensure our outreach and engagement initiatives are relevant and effective.

In 2019, the Group disbursed approximately \$1.81 million through its global programmes, corporate social responsibility initiatives, sponsorships, donations, staff contributions, and industry programmes. Our employees clocked over 10,000 hours to support various community initiatives during the year.

Beyond Singapore, the Group's overseas yards organise programmes that advance local training and capability building, environmental sustainability, youth and educational development, as well as sports and cultural promotion.



As part of our commitment to giving back to the community, we have awarded over \$4.4 million of bursaries to more than 22,000 students since 2001, through our long-standing School Book Assistance Grant (SchoolBAG).

SUSTAINABILITY REPORT 2019

CARING FOR OUR COMMUNITIES

CARING GLOBALLY

\$1.5 million in donations for Youth and Education Programmes provided to approximately **1,000** individuals globally

10,000 volunteering hours contributed towards community care and industry outreach programmes



BRAZIL



Awarded apprenticeships to **40** students in the Industrial Plumber and Welder Apprenticeship Programme



\$43,000 raised through community care programmes for **2,000** recipients



Saved **590,000** single-use plastic cups (or 2.36 tonnes¹⁵ of plastic going into landfill) by replacing them with reusable cups



Conducted **120** hours of education on protecting the environment for the local community as part of "Nossa Praia" project



Donated **\$10,500** towards the installation of a rainwater harvesting system for the São José Association



Employees from EJA and students participating in the Nossa Praia project



EJA raised funds for some 2,000 beneficiaries

INDONESIA



\$32,000 contributed by our Karimun yard for building two additional classrooms at SDN005 Meral Barat, benefitting **230** students



250 hours of education and outreach programmes delivered by our Batam yard to local vocational schools and universities



Mr Lim Wei Tat of Karimun yard receiving a plaque from Ibu Eti Haryati, the Headmistress of Primary School SDN 005, Meral Barat

BRAZIL



Batam yard colleagues conducting a sharing session at Hasanuddin University, South Sulawesi

SUSTAINABILITY REPORT 2019





Students from Temasek Primary School at the Green Wave awards ceremony



Sembcorp Marine participants at the ASMI Bowling Tournament



\$186,000 given out through Sembcorp Marine's School Book Assistance Grant (SchoolBAG), benefitting **895** students



\$284,000 disbursed to **40** recipients of the ITE Financial Assistance Programme



1,000 participants in our Green Wave Competition submitted **281** projects



\$78,000 raised for the Community Chest SHARE Programme



More than **200** employees participated in Shipbuilding and Marine Engineering Employees' Union (SMEEU) Road Run held at Sembcorp Marine Admiralty Yard in August 2019



6 teams from Sembcorp Marine participated in the ASMI Bowling Tournament in June 2019, with Team One achieving 2nd runner up in the Overall Team Titles category



A **43**-member contingent from Sembcorp Marine participated in the National Day Parade 2019



SUSTAINABILITY REPORT 2019

CARING FOR OUR COMMUNITIES



INSIGHT Programme

To spur interest in the offshore and marine industry among secondary and tertiary students from around the world, Sembcorp Marine initiated the INSIGHT Programme in 2018. This programme aims to enhance the students' understanding of industry practices and operational processes through site visits at Sembcorp Marine's yards and projects.



Students attending our INSIGHT Programme in August 2019

16 visits organised in 2019 for

547 dents and teaching staff from

10 educational institutions across

4

National Engineers Day 2019

Sembcorp Marine showcased its technological innovations at the National Engineers Day 2019 exhibition and interactive workshop in Singapore



National Engineers Day

Sharing session at Hasanuddin University

Batam yard conducted a sharing session on welding science and industry applications for 22 students at Hasanuddin University in South Sulawesi in July 2019.



Batam yard colleagues conducting sharing session at Hasanuddin University

SUSTAINABILITY REPORT 2019

Sembcorp Marine Joint Educational Programme

Conducted in collaboration with Sembcorp Marine, Singapore's Ngee Ann Polytechnic and the Federal Institute of Espírito Santo (IFES), the Joint Educational Programme was set up in 2013 to train promising engineering graduates from Brazil for suitable positions in EJA. The 7th batch of trainees (nine in total) commenced their one-year programme in Singapore in January 2019. The programme included an intensive three-month Technical English Course in Mechanical Engineering (TECME), followed by a Diploma (Conversion) in Marine & Offshore Technology (DCMOT) at Ngee Ann Polytechnic and on-the-job-training at Sembcorp Marine shipyards. A total of 128 trainees from EJA and IFES have thus far completed the Joint Educational Programme.



Participants of the 7th Technology Transfer Programme in Singapore

Serving Industry and Public

Sembcorp Marine senior management staff volunteer, serve and participate in various industry associations and public councils, promoting effective collaboration to advance the interests of stakeholders in the Public, Private and People sectors.

- Association of Singapore Marine Industries (ASMI) Council
- Global Compact Network Singapore (GCNS)
- Industry Advisory Panel of Nanyang Technological University (NTU) School of Mechanical and Aerospace Engineering
- Institute of Technical Education (ITE) Engineering Academic Advisory Member Committee
- Marine and Offshore Sectoral Tripartite Committee

- Ngee Ann Polytechnic (NP) School of Engineering Advisory Committee
- Singapore Institute of Technology-Newcastle University (SIT-NU) Industry Advisory Committee for Joint-degree Programmes in Marine Engineering, Naval Architecture and Offshore Engineering
- Singapore Institute of Technology (SIT) Industry Advisory Committee for Joint DigiPen SIT Programme
- Singapore Maritime Foundation (SMF) Board

- Singapore Maritime Institute (SMI) Board & Governing
- Singapore Maritime Institute (SMI) International Advisory Panel Committee
- Society of Naval Architects and Marine Engineers Singapore Committee and Council
- University of Glasgow (UoG) Singapore Industry Liaison Committee
- Workplace Safety and Health 2028 (WSH2028) Tripartite Strategy Committee





SUSTAINABILITY REPORT 2019

OPERATING A RESPONSIBLE BUSINESS

Sembcorp Marine upholds the highest standards of governance, transparency, accountability and ethics in all aspects of our operations. Our framework encompasses:

- Good Governance & Prudent Decision Making;
- Effective Enterprise Risk Management;
- Regulatory Compliance; and
- Business Integrity.

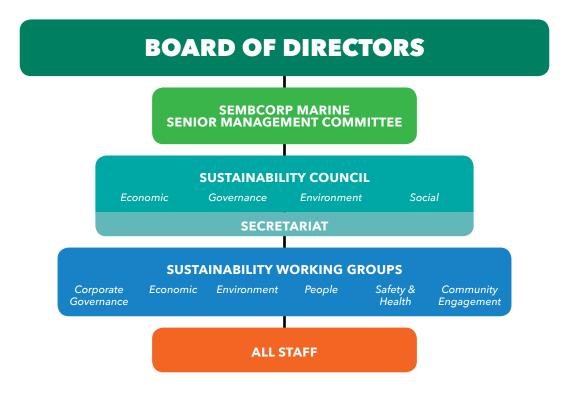
GOOD GOVERNANCE & PRUDENT DECISION MAKING

We recognise that our business activities have an impact on society and the environment. As a responsible corporate citizen, we have a comprehensive and integrated governance system of policies, practices and control measures to manage this impact. Our sustainability performance is assessed by the Sembcorp Marine Sustainability Council, Senior Management Committee (SMC) and the Board Executive Committee. Sembcorp Marine's Board of Directors is ultimately responsible and accountable for the Group's sustainability performance and reporting.

The Sustainability Council oversees the Group's sustainability performance. Led by the President & CEO, the Council is tasked with creating value for all our stakeholders by integrating economic, governance, social and environmental standards and responsibilities into the Sembcorp Marine approach to business.

The Council, comprising champions from various working groups, is responsible for formulating corporate sustainability strategies, policies and mitigation actions and for advancing sustainability opportunities. The Council reports to the SMC, which meets regularly to discuss major operational issues. The SMC reports on Sembcorp Marine's performance and targets at Board Executive Committee meetings.

The Sustainability Secretariat coordinates with the working groups to implement strategies, identify specific emerging issues and engage stakeholders. All Sembcorp Marine employees are encouraged to carry out the Group's sustainability efforts.



SUSTAINABILITY REPORT 2019

BOARD STATEMENT ON SUSTAINABILITY REPORT

- Sembcorp Marine's Board of Directors is committed to sustainability.
- The Board believes that the Sustainability Report 2019 provides a reasonable and clear presentation of the Company's sustainability strategy, in which seven material issues are determined and adopted under the four key sustainability dimensions.
- The Sustainability Council assists the Board in overseeing and monitoring the Company's sustainability initiatives.
- On behalf of the Sustainability Council, the Sustainability Secretariat provides regular updates at Board meetings on the Company's sustainability initiatives, challenges, targets and progress.
- The Sustainability Report 2019 is prepared in accordance with the SGX Sustainability Reporting Guide and the Global Reporting Initiative (GRI) Standards: Core Option.



EFFECTIVE ENTERPRISE RISK MANAGEMENT

Sembcorp Marine considers a wide range of risks and opportunities in its efforts to create value over the long term. We focus on a set of economic, environmental, social and governance topics that speak to our stakeholders' interests and which help us create and preserve value in our business. In particular, environmental issues are a growing concern.

In the 2019 Global Risk Report, extreme weather events and failure of climate-change mitigation and adaptation are the top three global risks in terms of likelihood and impact. We are paying greater attention to these risks, and addressing them through our sustainability targets. Our risk management

framework is structured to progressively meet our mid- and long-term targets, and ultimately reduce the negative impact of our operations and activities on society and the environment.

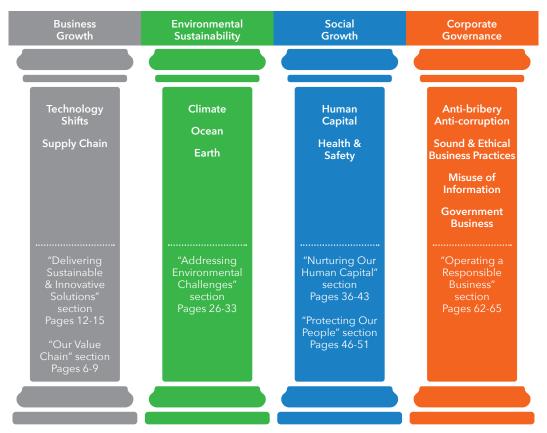
Risk Champions, appointed from various units, help the Enterprise Risk Management Committee (ERMC) drive key risk initiatives and review risk issues across the Group. The ERMC, also chaired by the President & CEO, reports to the Board Risk Committee.

Our Enterprise Risk Management (ERM) framework guides Management in dealing effectively with uncertainties and the associated risks in pursuing business opportunities.

SUSTAINABILITY REPORT 2019

OPERATING A RESPONSIBLE BUSINESS

KEY RISKS IN OUR FOUR SUSTAINABILITY DIMENSIONS





Find out more about our Corporate Governance and Risk Management Frameworks in the Sembcorp Marine Annual Report 2019

REGULATORY COMPLIANCE

As a multinational corporation, Sembcorp Marine must comply with local and cross-border laws, rules and regulations. Our employees, vendors and suppliers must also adhere to the Group's internal policies and procedures, and applicable standards of conduct.

We aspire to build and strengthen a culture of compliance, control and ethical conduct across the Group. To anticipate compliance risks, we identify and assess emerging regulations and best practices regularly. We review and enhance our policies and perform compliance assurance activities to ensure that we are adhering to all regulatory requirements and practices. We provide our staff with compliance training and keep the Board and designated committees apprised of any compliance issues encountered and corresponding remedial measures.

SUSTAINABILITY REPORT 2019

2019 Compliance Accomplishment

NO incidents of noncompliance

NO legal actions for anticompetitive behaviour, antitrust, and monopoly practices Awarded **ISO 37001**Anti-bribery Management
System (ABMS) certificate

18 senior management attended the internal auditor training

Inaugural Compliance Awareness Week drew a total participation of 1,938 employees, 600 of whom attended talks by invited guests

BUSINESS INTEGRITY

Business integrity safeguards Sembcorp Marine's assets and reputation, and the long-term interests of our stakeholders. We adhere to the United Nations Global Compact's Anti-corruption Principle and do not tolerate fraud, bribery and corruption in our business dealings and operations¹⁷.

We perform our duties with honesty, dedication and respect for confidentiality. We value loyalty, trustworthiness and openness as essential personal attributes in our corporate culture. Our Code of Business Conduct applies to all directors, employees of related companies, and suppliers. It sets out the Group's core values and expectations regarding business ethics.

Our Anti-bribery & Anti-corruption policies and procedures are communicated to **ALL** our directors, employees and suppliers Our vision is to achieve 100% global workforce participation in our Anti-bribery and Anti-corruption e-learning

Achieved today: 6,855 employees (63.8%)

Of the 6,855 employees who took the Anti-bribery and Anti-corruption e-learning,

3,623 were executives and 3,232 were non-executives

32 are from Indonesia

116 are from the rest of the world 18

- (17) On Feb 20, 2020, the court of Brazil convicted Mr Guilherme Esteves de Jesus for corruption and money laundering in relation to certain drilling rig construction contracts entered into by subsidiaries of Sembcorp Marine with Sete Brasil in 2012. Mr de Jesus is connected to the consultant engaged by the Company's subsidiaries to advise on the drilling unit construction contracts for subsidiaries of Sete Brasil. Mr Martin Cheah Kok Choon, ex-President of Sembcorp Marine's Brazilian subsidiary Estaleiro Jurong Aracruz, is also charged with money laundering and corruption related to the same contracts. Sembcorp Marine is not aware of any other employee, past or present, who is a subject of the ongoing investigations by the Brazilian authorities. For more information, please refer to our announcements on the matter at www.sembmarine.com.
- (18) Rest of the world includes Norway, USA, Malaysia, Poland, France and United Kingdom.







Sembcorp Marine Ltd 80 Tuas South Boulevard, Singapore 637051 Tel: +65 6265 1766 www.sembmarine.com

Co. Reg. No. 196300098Z