



SUSTAINABILITY REPORT 2022

# 60 JUBILEE YEARS A KALEIDOSCOPE OF STRENGTHS

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## ABOUT THE REPORT

Sembcorp Marine's Sustainability Report 2022 is our fourth standalone publication following 12 years of sustainability disclosure since FY2011. This report communicates our progress and performance, provides transparency and accountability to all our stakeholders and highlights our proactive sustainability reach across our global operations.

This report is prepared in accordance with the Global Reporting Initiative (GRI) Standards according to its latest Universal Standards 2021 (the GRI Content Index is published on our website at [www.sebmarine.com/sustainability/sustainability-report](http://www.sebmarine.com/sustainability/sustainability-report)). The GRI Standards were selected as our main reporting framework as they are globally recognised and relevant for all our stakeholder groups.

To enhance our Environmental, Social, Governance (ESG) disclosures, we have also disclosed against relevant indicators in the Sustainability Accounting Standards Board (SASB). We referenced these frameworks to enhance our ESG disclosures: Recommendations from the Task Force on Climate-related Financial Disclosures (TCFD); United Nations Sustainable Development Goals (UN SDGs); Sustainability Reporting Guidance for the Oil and Gas Industry issued by IPIECA, the American Petroleum Institute (API), and the International Association of Oil & Gas Producers (IOGP).

This report should be read in conjunction with our Annual Report 2022 and full sustainability disclosure online at [www.sebmarine.com](http://www.sebmarine.com). This report also augments our first three standalone publications. For a full appreciation of our sustainability programmes and progress, please read all four reports.

## SCOPE OF THE REPORT

The scope of our Sustainability Report 2022 covers our yards and facilities under our operational control in Singapore, Indonesia and Brazil, unless otherwise stated. These regions have the most significant sustainability impact on our stakeholders, and our organisation. The data reported relates to the financial year (FY) from 1 January 2022 to 31 December 2022.

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

The Group's entities included in the consolidated financial statements are detailed in the Notes to the Financial Statements in our Annual Report 2022 (pages 196 to 198), which is published separately at [www.sebmarine.com/investor-relations/annual-report](http://www.sebmarine.com/investor-relations/annual-report).

## ASSURANCE

We have engaged PricewaterhouseCoopers LLP for the sixth year to undertake a limited assurance on selected sustainability information for the financial year ended 31 December 2022 marked with \* in our Sustainability Report 2022.

The assurance engagement was performed in accordance with the Singapore Standard on Assurance Engagements (SSAE) 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information and, in respect of the greenhouse gas emissions, in accordance with SSAE 3410 – Assurance Engagements on Greenhouse Gas Statements. Details can be found in the Independent Limited Assurance Report on Sustainability Information at [www.sebmarine.com/sustainability/sustainability-report](http://www.sebmarine.com/sustainability/sustainability-report).

## SCAN FOR MORE INFORMATION



### Sustainability Report 2022

- SGX Sustainability Reporting Index
- GRI Standards Content Index
- SASB Content Index
- Independent Practitioner's Limited Assurance Report

### Our recent sustainability reports:

- Sustainability Report 2021
- Sustainability Report 2020
- Sustainability Report 2019



### Annual Report 2022

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

## FEEDBACK

To provide feedback on our sustainability reporting, please email [sustainability@sebmarine.com](mailto:sustainability@sebmarine.com).

## CHAIRMAN'S FOREWORD



### A sustainable future for generations

Energy demand is predicted to double by 2050, as a staggering one million people are added to our planet every week. To meet this growing demand at the same time as reducing greenhouse gas emissions, total investment in the global energy sector needs to double to \$4-5 trillion per annum in the coming decades. Even with massive investment in renewables and new energy, continued investment will be needed in oil and gas to ensure secure supply during this "Energy Transition". In the coming decade the total market for offshore & marine solutions for renewables will grow to US\$260 billion while the market for traditional offshore and marine business supporting oil and gas will be around US\$290 billion. Moving to net zero carbon emissions by 2050 is probably the biggest challenge the world faces.

As a global provider of innovative engineering solutions for the marine, offshore renewables and energy industries, Sembcorp Marine endeavours to play our part in supporting the industry and our customers as they work to achieve a delicate balance of their corporate economic, environmental, social and governance (EESG) objectives.

While we help our customers to advance their business objectives, we keep a keen focus on our own corporate EESG strategic thrusts and goals.

Our sustainability journey has taken the Group on a strategic business transformation to re-balance its product solutions portfolio with an increasing concentration on renewables and other green solutions. As of end 2022, our renewable wind energy and clean solutions account for roughly S\$2.5 billion or 37% of our net order book and achieved 24% of annual company turnover from sustainable solutions. We will continue to work towards our Sustainability Vision 2030, where we aim to have 40% of our annual company turnover generated from sustainable solutions.

We are committed to zero harm to the environment, mitigating our impact on the climate, ocean and the earth. We integrate green initiatives into every aspect of our operations. Our flagship Tuas Boulevard Yard and Admiralty Yard have attained the ISO 50001 Energy Management System certification in 2022, a recognition of the company's ability to assimilate energy management into our operations to improve energy usage. Significantly, we have also achieved a 24.7% reduction of our GHG emissions in 2022, bringing us a step closer to our Vision 2030 target of a 40% reduction of our emissions from 2008. Our organisation also scored 29 wins at National WSH events in 2022 for demonstrating excellence in workplace safety and health.

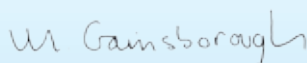
We also advance social growth to uplift the communities where we operate. In 2022, we were presented with the Institute of Technical Education's 30<sup>th</sup> Anniversary Distinguished Partner Award, in recognition of our partnership with the institution in developing staff and student capabilities through joint training programmes and internships. Sembcorp Marine marked 20 years of advancing sustainability through its Green Wave Environmental Care Programme. Launched in 2003, the Programme is a key platform for schools to raise environmental awareness and promote development of innovative sustainable solutions in Southeast Asia. In 2022, Sembcorp Marine invested a total of S\$2.88 million in community programmes.

While pursuing positive financial performance and business growth, we endeavour to operate a responsible business committed to the highest standards of governance, ethics, transparency and regulatory compliance, underpinned by a proactive risk management culture.

While we have, as an organisation, made great strides in our sustainability endeavours, the work must continue. I believe with the combination of two established industry players – Sembcorp Marine and Keppel O&M – we bring the best of each company to the table, to create a new and better business with greater ability to accelerate our advance into cleaner

and greener offshore solutions. We plan to conduct a comprehensive materiality assessment in 2023, taking into account the Group's ongoing strategic review and integration exercise.

We share a common vision of a healthy planet and pristine blue oceans for today's society and future generations. We have set ambitious goals to be achieved by 2030 and remain determined to work towards a more sustainable future for all. Let's build a better world together!



**Mr Mark Gainsborough**

Chairman  
Sembcorp Marine Ltd

## BOARD STATEMENT ON SUSTAINABILITY REPORT

The board of directors of Sembcorp Marine Ltd (the Board) is committed to sustainability and continuous Environmental, Social and Governance (ESG) improvements.

The Board believes in establishing a sustainable future for our businesses and creating long-term value for stakeholders. A sound management of ESG risks and opportunities is key to ensuring the long-term growth and viability of our business as well as addressing the long-term impact on the environment and society. With this view, the Board takes a comprehensive approach and considers all relevant sustainability issues, including climate-related concerns, as part of the Group's sustainability strategy formulation, which are then integrated into its operations and business. Reflecting the importance of ESG in our business, sustainability is also anchored in our core values and corporate culture.

The Board oversees the Group's sustainability agenda and provides strategic direction to the Group's Sustainability Council (SC) and core sustainability working groups. Moving forward, a dedicated Corporate Social Responsibility (CSR) Committee has been established to assist and support the Board in fulfilling its oversight responsibilities over ESG matters. We have set a clear ambition for Sembcorp Marine's sustainable growth with our Sustainability Vision 2030 strategic roadmaps. Please refer to page 7 for our Sustainability Vision 2030.

The Board has established a robust sustainability governance structure/framework which is set out on pages 6, 64, 66 and 67.

The Board is supported by the SC in its oversight of the Group's sustainability governance. The SC assists the Board in determining, overseeing the management and monitoring of the material ESG factors, in which eight material issues are determined and adopted under the four key sustainability dimensions, comprising Business Growth, Environmental Sustainability, Social Growth and Corporate Governance. We report our progress against sustainability targets on our key material topics, which can be found on pages 6 to 7. Our material topics, which were determined by



**MR MARK GAINSBOROUGH**

Chairman of the Board and  
Non-Executive/Independent Director



**MR YAP CHEE KEONG**

Deputy Chairman and  
Non-Executive/Independent Director



**MR CHRIS ONG**

Chief Executive Officer (CEO) and  
Executive/Non-Independent Director

the Board and the SC through our materiality review and sustainability workshop in 2017, are reviewed annually. The SC also assists the Board in implementing sustainability initiatives. Since 2015, the Group has strategically aligned our businesses towards a cleaner energy mix. We continue to drive Group sustainability in our business and community with a keen focus on four strategic areas, namely decarbonisation, ocean sustainability, digitalisation and social growth. These four strategic areas of our sustainability pursuit remain highly relevant, especially in the face of today's challenges.

The Board supports the reporting of the Group's sustainability performance in accordance with the SGX Sustainability Reporting Guide, Global Reporting Initiative (GRI) Standards, Sustainability Accounting Standards Board (SASB) framework and with reference to the United Nations Sustainable Development Goals (UN SDGs), Sustainability Reporting Guidance for the Oil and Gas Industry issued by IPIECA, American Petroleum Institute (API) and International Association of Oil & Gas Producers (IOGP), and the Task Force on Climate-related Financial Disclosures (TCFD) for materiality mapping and disclosures on performance. Aligning our sustainability programmes with 11 out of 17 UN SDGs and other international frameworks

relevant to our business strategy has enabled us to drive the progress of our sustainability strategy towards sustainable development. The Board is responsible for the review and endorsement of this Sustainability Report.

The Group's Sustainability Report complements its other regulatory financial and corporate governance disclosures. The report provides transparency on our business in the context of sustainability impact, performance, targets and other insights. We welcome and value all feedback or suggestions from stakeholders to help us further augment our sustainability practices and reporting. Please forward any comments on our sustainability report and programmes to [sustainability@sembmarine.com](mailto:sustainability@sembmarine.com).

Board of Directors  
Sembcorp Marine Ltd



**MR NAGI HAMIYEH**

Non-Executive/  
Non-Independent Director



**MR JAN HOLM**

Non-Executive/  
Independent Director



**MR LAI CHUNG HAN**

Non-Executive/  
Independent Director

## OUR SUSTAINABILITY APPROACH AND PERFORMANCE



At Sembcorp Marine, sustainability is integrated across every aspect of our business to create value for our stakeholders over the long term. Our commitment to sustainability is anchored by our vision, mission, and values, which serve as the guiding principles for our company's conduct and growth.

Our sustainability strategy focuses on four key pillars: Business Growth, Environmental Sustainability, Social Growth, Corporate Governance. There are also eight material topics and targets to pave the path for a sustainable future.



Scan for more information on our materiality issues

## OUR KEY ACHIEVEMENTS IN 2022 AT A GLANCE



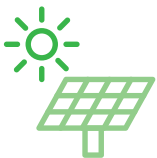
**24%**

of annual company turnover from sustainable solutions<sup>2</sup>



**27.6**

training hours per employee globally<sup>2</sup>



**>3,200 tonnes**

of carbon emissions avoided by using clean energy generated by the solar panels at Sembcorp Marine Tuas Boulevard Yard, equivalent to taking 1,026 cars off the road for a year<sup>2</sup>



**0.8 LTIR<sup>1</sup>**

per million man-hours worked<sup>2</sup>



**100%**

compliance with anti-competitive behaviour, anti-trust and monopoly<sup>2</sup>



**\$2.88 million\***









invested in community programmes<sup>2</sup>

<sup>1</sup> LTIR refers to Lost Time Injury Rate. For more details, please refer to page 51.

<sup>2</sup> In FY2021, the Group achieved 30% of annual company turnover from sustainable solutions; avoided more than 2,300 tonnes of carbon emissions by using energy generated by the solar panels at our Tuas Boulevard Yard; attained 100% compliance with anti-competitive behaviour, anti-trust and monopoly; clocked 32.08 training hours per employee globally; attained 0.53 LTIR; and invested more than S\$3 million in community programmes.



## DETAILS OF OUR 2022 PERFORMANCE

VISION 2030	MATERIAL TOPICS	2022 PERFORMANCE	2025 TARGETS
<p><b>DECARBONISATION</b></p> <p><b>40%</b> of annual company turnover generated from sustainable solutions</p>	<p> Innovation &amp; Sustainable Solutions</p> <p> Customer Alignment</p>	<ul style="list-style-type: none"> <li>Achieved 24% of annual company turnover from sustainable solutions</li> <li>Continued to develop innovative solutions</li> <li>Maintained 100% compliance with product safety and health requirements</li> <li>Achieved 99% customer satisfaction for repair and upgrading projects</li> </ul>	<ul style="list-style-type: none"> <li>30% of annual company turnover generated from sustainable solutions</li> <li>100% compliance with product safety and health requirements</li> <li>95% customer satisfaction in all projects</li> </ul>
<p><b>CLIMATE, OCEAN and the EARTH</b></p> <p><b>40%</b> reduction of our emissions (Scope 1 &amp; 2) from 2008 level</p>	<p> Environmental Sustainability</p> <p> Supply Chain</p>	<ul style="list-style-type: none"> <li>Achieved ISO 50001 Energy Management System certification for TBY and AY</li> <li>Achieved a total installed solar panel capacity of 8.5 MWp<sup>3</sup></li> <li>Achieved a 24.7% reduction in GHG emissions (Scope 1 &amp; 2) from 2008 level</li> <li>100% contracted responsible procurement spend</li> </ul>	<ul style="list-style-type: none"> <li>Zero harm to environment</li> <li>100% contracted responsible procurement spend</li> </ul>
<p><b>COMMUNITIES</b></p> <p><b>Positive Impact</b> on our communities, stakeholders and people through corporate social care programmes</p>	<p> Human Capital</p> <p> Total Workplace Safety &amp; Health</p> <p> Community Engagement</p>	<ul style="list-style-type: none"> <li>Total investment in global employee training and development at S\$0.84 million which is equivalent to 0.15% of total payroll</li> <li>Achieved 27.6 training hours per employee globally</li> <li>Accident Frequency Rate, Accident Severity Rate and Workplace Injury Rate at 0.64, 11.19 and 197.10 respectively<sup>4</sup></li> <li>Invested S\$2.88 million* in community programmes</li> <li>Staff dedicated more than 3,970 hours in community programmes<sup>5</sup></li> <li>Launched the Employee Volunteer Scheme and partnered with St Luke's Eldercare Centre to organise community activities</li> </ul>	<ul style="list-style-type: none"> <li>3% of total payroll as investment for workforce competencies and talent development</li> <li>40 training hours or 5 training days per employee per year</li> <li>Build a diverse and inclusive workplace</li> <li>Vision Zero incidence target</li> <li>Workplace Injury Rate below national benchmarks</li> <li>S\$2.5 million of annual investment for community engagement</li> <li>20,000 hours of participation in community projects and volunteering activities by employees</li> </ul>
<p><b>SUSTAINABLE WORLD</b></p> <p>Operate a <b>Responsible, Resilient and Sustainable</b> Business</p>	<p> Business Integrity</p>	<ul style="list-style-type: none"> <li>Active engagement with governance bodies and sustainability agencies</li> <li>Maintained 100% compliance with codes of conduct by employees and suppliers</li> <li>No material incidents of non-compliance</li> <li>100% compliance with anti-competitive behaviour, anti-trust and monopoly policies</li> </ul>	<ul style="list-style-type: none"> <li>Uphold standards of corporate governance disclosures</li> <li>Manage risks of the Group holistically and prudently within ambit of its risk appetite, safeguards assets and shareholders' interests, as well as comply with applicable laws</li> <li>Uphold the Group's zero tolerance policy towards fraud, bribery and corruption</li> </ul>

<sup>3</sup> Installed capacity refers solely to capacity of solar panels installed and does not pertain to solar panels that are commissioned and switched on. In 2022, all solar panels have been commissioned.

<sup>4</sup> For more details, please refer to page 51.

<sup>5</sup> We have launched the Employee Volunteer Leave Scheme and new community activities in late 2022 to encourage our employees to volunteer their time in meaningful community projects and activities.

# ADVANCING SUSTAINABILITY ACROSS OUR VALUE CHAIN

As part of our commitment to decarbonise and mitigate climate change, Sembcorp Marine is actively managing each stage of the life-cycle of our products and solutions, from design and engineering to production and delivery.

Our mission is to promote sustainability through our value chain by encouraging continuous innovation for green energy and resource efficient designs, and engineering solutions. This helps to reduce the impact on marine environment and biodiversity, minimises the use of hazardous materials, promotes sustainable procurement practices in compliance with Sembcorp Marine's code of conduct and local regulations, and extends service life of existing assets and solutions delivered to clients through repairs, upgrades and conversions. It adopts responsible and fair labour practices, provides necessary training and safety measures for the health and well-being of employees, contractors, vendors and local communities and technical support for end-of-life treatment and recycling.



Sembcorp Marine actively engages and influences its suppliers, and service and labour providers to assess the material impacts and promote sustainability in the value chain.

In 2022, Sembcorp Marine's ability to influence has resulted in the outcomes as shown on the next page.

For 2023 and beyond, we continue to enhance our ability to influence innovation, technology advancement, sustainable procurement practices and human rights as critical strategic activities for competitiveness, business growth and customer satisfaction.



Scan for more information on our value chain management



Scan for more information on our stakeholders' engagement

## OUR ABILITY TO INFLUENCE AND OUTCOMES

OUR ABILITY TO INFLUENCE

### Sustainable Designs & Solutions

We completed the third zero-emission battery-powered Ropax ferry, built based on the proprietary design of Sembcorp Marine's wholly-owned subsidiary LMG Marin.

We contributed to maritime decarbonisation in Singapore by building and operating the world's first LNG hybrid tug and participating in testbedding the use of hydrogen as fuel for a roll-on/roll-off vessel with our energy partner, Shell.

### Sustainable Procurement Practices

We deployed a supply chain management strategy with enablers to drive:

- Engagement and collaboration with supply chain to drive sustainable best practices
- Harnessing technologies
- Due diligence & compliance
- Strategic sourcing & responsible procurement, and
- Inventory optimisation to reduce wastages

### Extending Service Life of Existing Assets & End-of-life Treatment & Recycling

We provide customers' existing assets with life-cycle extension and repurposing with repair, upgrading and conversion solutions.

We provide training and support to our customers to operate these assets in a safer and more resource-efficient manner.

We support customers' preparation of end-of-life assets for safe and efficient recycling and scrapping.

### Responsible & Fair Employment Practices

We supported collective bargaining agreement for workers who are not employees and have a grievance by providing mechanisms and enforcing whistleblowing policy.

OUTCOMES

The three ferries are running on lithium-ion batteries charged by hydro-electric energy power. The resulting emission per ferry compared to a traditional ferry is 971 tCO<sub>2</sub>e.

Please refer to Innovation & Sustainable Solutions on pages 14 to 21 for more disclosures of our outcomes.

All key suppliers meet our compliance requirements for sustainable practices and disclosures with no recorded breaches relating to national and international environmental, safety and public health, labour and governance regulatory requirements

Please refer to Supply Chain Management on pages 10 to 12 for more disclosures.

On 3 March 2022, we witnessed the delivery and sailaway of Floating Storage Regasification Unit (FSRU) Karmol LNGT Powership Asia to KARMOL (a Joint Venture between MOL and Karadeniz Holdings). Through the conversion of the FSRU from a LNG tanker, we have successfully repurposed the unit and extended its service life.

We have also provided MSC Polaris new lease of life from an extensive fire damage with the completion of major repairs undertaken by our team, enabling it to continue to operate in a safe and sustainable manner.

Contractors supplying manpower to Sembcorp Marine's yards declared that their operations and human resources practices are in compliance with Sembcorp Marine's Human Rights Policy, Supplier Code of Conduct and applicable employment legislation.

VALUE TO STAKEHOLDERS

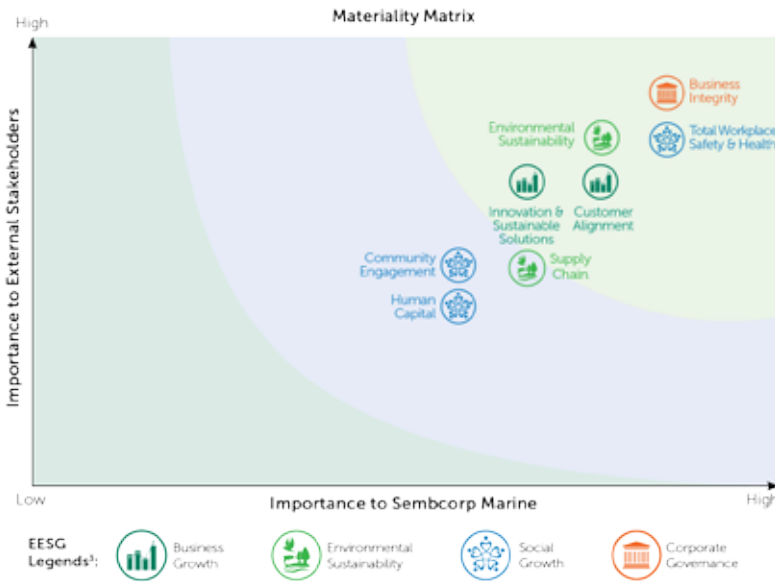


# BUILDING OUR SUSTAINABLE SUPPLY CHAIN

Sembcorp Marine manages its supply chain to ensure suppliers meet requirements for sustainable practices and disclosures.

We uphold high standards of quality, health, safety and environmental compliance at every stage of our supply chain. Through our five pillars of supply chain management, the Group works towards improving traceability, connectivity, and mitigating environmental and social impact.

Integrating sustainability and digitalisation into our supply chain management processes are part of our future-ready strategy to mitigate disruptions, ensure business continuity and maintain our competitiveness. This provides a consistent framework when introducing data standards for better reporting, sharing data for Environmental, Social, and Governance (ESG) insights and mandatory disclosures, and meeting data security requirements.



The Group has been reporting on its supply chain management as part of its sustainability reporting.

In 2020, we conducted an internal materiality review with our sustainability champions which confirmed that the seven material topics, identified in 2016, remains relevant.

In 2022, when we conducted another review with internal stakeholders, we assessed that supply chain will be our eighth material topic.



Sharing sessions were held with key vendors on product technology, technical and compliance and sustainability updates.

## OUR FIVE PILLARS APPROACH TO SUPPLY CHAIN MANAGEMENT



### Strategic Sourcing and Responsible Procurement

We source equipment, materials, parts and other items in ways that reduce our environmental footprint. Products and solutions that do not harm the environment and have lower carbon footprint are preferred. These include environmentally-friendly paints, coatings and materials as well as energy-efficient products for customers' projects and business operations.



### Due Diligence and Compliance

To assess the credentials and reliability of suppliers, our due diligence processes include pre-qualification checks, performance evaluations and audits prior to registration into Sembcorp Marine's approved vendors list.

We conduct annual and ad-hoc compliance screenings on suppliers for offences such as bribery and corruption, human rights abuses and forced labour, and environmental lapses.

New suppliers are required to adhere and sign declarations in compliance with Sembcorp Marine's Code of Business Conduct and Supplier Code of Conduct. Suppliers shall be subject to compliance audit when required.

We conduct quality assurance on suppliers' production, Factory Acceptance Tests (FAT), on-site audits and remote inspections to ensure continued compliance to technical requirements and industry health, safety and environmental standards.



### Harnessing Technologies

Digital platforms and technologies are deployed for procurement processes and interfacing with supply chain partners and stakeholders. This ensures business continuity, security, traceability, operational resilience and effective control for procurement processes.



### Inventory Optimisation

We actively monitor our inventory flow, delivery and deployment of materials, and equipment and consumables to ensure continuity of supply. We replenish our inventory levels with contingency supply sources to ensure continuity of our operations with minimal waste.



### Engagement and Collaboration

We engage our suppliers closely to monitor availability of goods and services. This enables us to better manage disruption points, enable recovery plans and meet compliance requirements by authorities. We monitor the source and availability of key materials, equipment and consumables to identify and mitigate possible risk areas in the supply chain.

Our approved vendors list allows for geographical diversity in our sourcing to mitigate disruption points in supply chain. Strategic frame agreements with key suppliers secure essential suppliers for our operations.

# BUILDING OUR SUSTAINABLE SUPPLY CHAIN



## Strategic Sourcing and Responsible Procurement



## Due Diligence and Compliance



### Setting Standards for Suppliers in Our Supply Chain

We expect our suppliers and sub-suppliers to conduct their business in a manner consistent with our supply chain principles. We seek to include and follow up on these expectations in our business relationship. Suppliers are required to comply with the Sembcorp Marine's Code of Business Conduct and Supplier Code of Conduct.

We require the supply of key materials, equipment and consumables to meet national and international environmental, safety and public health regulatory requirements.

We expect our suppliers to declare their compliance with environmental, social and governance requirements set out in the Sembcorp Marine's Supplier Code of Conduct and Code of Business Conduct.

Our suppliers are expected to operate in an environmentally responsible manner with regards to natural resource consumption, materials sourcing, waste generation, discharges and emissions, prohibition of supply and use of conflict minerals.

Suppliers are expected to comply with the National (National Environmental Agency, Singapore) and International (International Maritime Organization, the Montreal Protocol provisions) environmental regulatory requirements.



### Meeting and Achieving Standards by Supply Chain

Our suppliers declared that they would adhere and comply with the Sembcorp Marine's Code of Business Conduct and Supplier Code of Conduct.

We use approved and licensed service providers to recycle materials such as steel and blasting grit, and to dispose waste responsibly and in compliance with regulatory requirements.

Supplied goods to Sembcorp Marine are 100% asbestos-free and contained no Hydrochlorofluorocarbons (HCFC) or banned materials.

None of our key suppliers for materials, equipment and consumables are in breach of national and international environmental, safety and public health, labour laws and requirements.

All new suppliers qualified to our Approved Vendors List, including third Party Representatives comprising freight forwarding/transportation services providers, complete vendor registration declarations and required compliance screening.

All of our suppliers undergo annual/ad-hoc compliance screening for Sanctions Screening, Anti-Money Laundering, Anti-Bribery & Corruption, Politically Exposed People (PEP) Monitoring, Counter the Financing of Terrorism, Crime Third-Party Risk, Human Rights Abuses, Slave Labour, Environmental Crimes.

Suppliers not meeting our qualification process requirements, or suspended due to compliance reasons, are rejected or removed from active sourcing lists.

New suppliers listing is provided by Sembcorp Marine for annual Global Reporting Initiative (GRI) audit requirements by third party.



### Mitigating Environmental and Social Impact

Sembcorp Marine's Supplier Code of Conduct covers environmental, social, governance compliance expectation of our suppliers.

We deploy strategic sourcing arrangements with key suppliers to secure essential supplies and uninterrupted services – such as waste treatment, freight forwarding, logistics and maintenance services for our operations.

Our suppliers comply with our emission reporting requirements for materials used and waste and disposal, where prescribed. Upon request, our suppliers provide products with Singapore Green Label and Energy Labelling Schemes by the NEA.

The Procurement Vendor Audit process is conducted for effective assessment of vendors or potential vendors' capability to deliver product and services to fulfil requisition requirements. This process shall be carried out at pre-purchase order or post-purchase order procurement stages for shortlisted, potential or selected vendors. The audit outcome will be considered as procurement's assurance of vendor's capability for fulfilment of requisition requirements in a sustainable manner.

Evaluation criteria are established for procurement related to using products, equipment and services that have impact on significant energy use in our facilities, systems, processes or equipment.



**Harnessing Technologies**

Supply chain digital platforms are deployed for continuity, standardisation, traceability, and effective control for procurement EPC source-to-pay processes.

Our Dolphin platform enhances access to policies and procedures. This platform also provides secure access to procurement policies and procedures for effective management and conduct of procurement activities.

Digital platforms are deployed to incorporate data analytics for decision making.

Remote inspection solutions and video conferencing were utilised for engagements, performance audits and business meetings with our supplier community when possible, to reduce the Group's carbon intensity.

Our procurement digital platforms and procedures enable close monitoring of procurement processes from pre-sourcing and sourcing to delivery of goods and services. When required, remote inspections and video conferencing also saved on business travel emissions and allowed continued global operations with less carbon intensity.



**Inventory Optimisation**

Inventory levels are replenished with contingency supply sources to ensure continuity of our operations.

To optimise our inventory levels and reduce wastage, we actively match the supply of materials and consumables at our shipyards against production requirements and establish advanced delivery plans with our strategic suppliers.

We source from global supply chains for equipment, materials and consumables. We optimise our sourcing routes to fulfil our project requirements, minimise our transportation costs and carbon footprint.



**Engagement and Collaboration**

We maintain an approved vendors list, and engages key suppliers regularly as part of our outreach with face-to-face and virtual engagements.

The Group's sustainability practices, ESG expectations and standards are shared with our suppliers during workshops, seminars and public forums.

Supply chain strategic frame agreements were established with key suppliers to ensure security of supply for projects and operations.

Sharing sessions were held with key equipment vendors and material suppliers on product technology and technical/ sustainability updates.

We hosted visits with suppliers' management team, national trade representatives, or visit suppliers' manufacturing premises as part of product awareness or audit requirements.




Periodic vendor performance evaluations and monitoring are conducted to ensure vendors are delivering performance as required, and in compliance with sustainability requirements.

We exchanged insights and shared knowledge with our key equipment and material suppliers on latest innovations in sustainable technologies and energy-efficient products to allow our engineering, procurement and operational functions to be kept abreast with latest information.

We work closely with our customers to enhance our sustainability best practices and engage our suppliers to progressively share and align their ESG practices with our ESG practices.



**Legend:**

-  Electric Cables
-  H<sub>2</sub> / NH<sub>3</sub> Pipeline
-  CO<sub>2</sub> Pipeline

**CLEANER O&M SOLUTIONS**

- 1 Electrified Floating Production, Storage and Offloading (FPSO) with Carbon Capture and Storage (CCS) option
- 2 LNG-powered Heavy Lift Vessel
- 3 LNG Bunker Vessel
- 4 Battery-Powered Roll-On/Roll-Off Passenger (Ropax) Ferry
- 5 LNG Hybrid Tug
- 6 Wind-assisted Vessel and Onboard CCS
- 7 Pipelay Vessel with Clean Design Notation
- 8 Methanol-Powered Cable Laying Vessel

**OFFSHORE RENEWABLES**

- 9 Fixed Wind Farm High Voltage Alternating Current (HVAC) / High Voltage Direct Current (HVDC) Substation
- 10 Floating Wind Farm HVAC / HVDC Substation / Energy Storage Hub
- 11 Bottom-fixed Wind Turbine
- 12 Semi-type Floating Offshore Wind Turbine (FOWT)
- 13 Cylindrical Barge Type Floating Offshore Wind Turbine (FOWT)
- 14 Offshore Wind Turbine Installation Vessel (WTIV)
- 15 Hydrogen-fuelled Wind Farm Crew Transfer Vessel (CTV)

**NEW ENERGY**

- 16 Gravifloat - Nearshore Hydrogen (H<sub>2</sub>) | Ammonia (NH<sub>3</sub>) Regasification Storage Terminal
- 17 Offshore Energy Hub - H<sub>2</sub> | NH<sub>3</sub> Production, Liquefaction and Storage Facility
- 18 Unmanned Floating CO<sub>2</sub> Injection Unit (FCIU)
- 19 H<sub>2</sub> | NH<sub>3</sub> Carrier
- 20 H<sub>2</sub> | NH<sub>3</sub> Bunker Vessel
- 21 Fully-pressurised Carbon Dioxide (CO<sub>2</sub>) Carrier



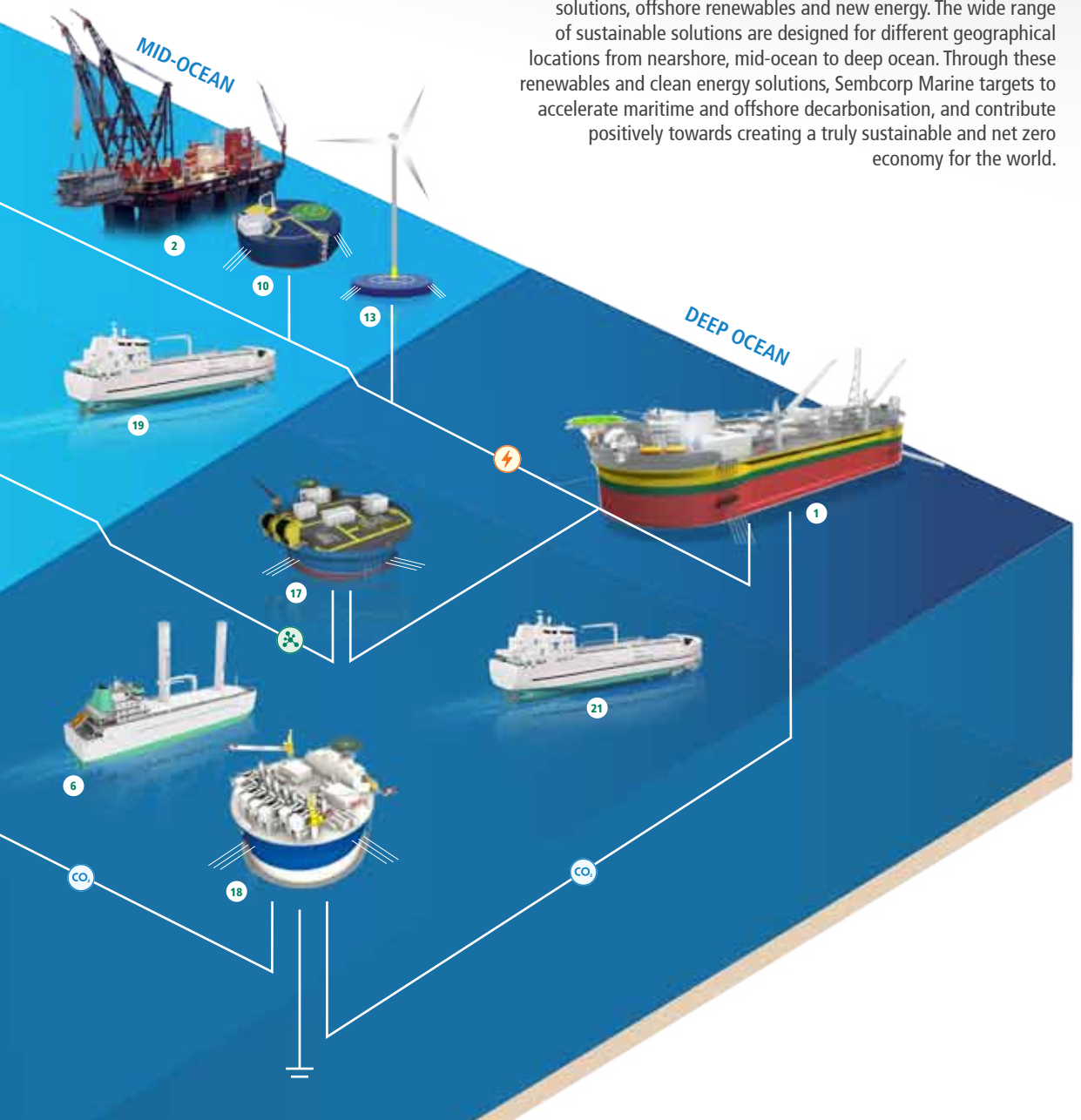


# DELIVERING INNOVATIVE AND SUSTAINABLE SOLUTIONS

CONTRIBUTING TOWARDS A ZERO-EMISSION ECONOMY

## Clean energy value chain solutions at sea

Sembcorp Marine's innovative and sustainable solutions cover the full clean energy value chain. This includes cleaner oil and gas solutions, offshore renewables and new energy. The wide range of sustainable solutions are designed for different geographical locations from nearshore, mid-ocean to deep ocean. Through these renewables and clean energy solutions, Sembcorp Marine targets to accelerate maritime and offshore decarbonisation, and contribute positively towards creating a truly sustainable and net zero economy for the world.



# DELIVERING INNOVATIVE & SUSTAINABLE SOLUTIONS

## SUPPORTING ENERGY TRANSITION THROUGH OFFSHORE & MARITIME DECARBONISATION

With its diversified portfolio of green solutions, Sembcorp Marine is well-placed to support the global energy transition, as well as capture new and greener opportunities in the offshore and marine sector. Sembcorp Marine designs and builds energy-efficient vessels that use advanced technology to reduce fuel consumption and emissions. These solutions include LNG-powered heavy lift vessel, battery-powered ROPAX ferry to LNG hybrid tug.

Offshore electrification provides a reliable and efficient way to help decarbonise the offshore industry. Sembcorp Marine continues to work with our customers to reduce their carbon footprints through the connection of offshore platform to onshore power plants or offshore wind farms and direct capture and injection into depleted hydrocarbon fields or saline aquifer. In 2022, we have secured a contract for the engineering and conversion of two Sevan drilling units into floating gas liquefaction units.

Sembcorp Marine also provides full suite of retrofitting solutions to further expedite energy transition by decarbonising ship in service to meet Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Indicator (CII) requirements. These green solutions include retrofitting engine to run on alternate fuels, main engine and auxiliary system performance optimisation, electrification, onboard carbon capture, harnessing renewables such as wind propulsion and improving energy efficiency through energy-saving devices.

### DECARBONISING OFFSHORE OIL AND GAS INSTALLATIONS



**Electrification via Subsea Cable connected to Shore Power**

Sembcorp Marine's subsidiary Sevan SSP has developed the cylindrical FPSO concept. The Goliat FPSO is electrified through a subsea cable to shore. This cylindrical unit is geostationary and cables are pulled in through I-tubes and connected directly to the electrical system onboard.



**Connection to Offshore Renewables via Nearby Wind Farm or Standalone Platform**

We provide solutions for fixed, shallow water and deepwater wind turbine foundation, which can be connected to FPSO to reduce carbon emission from onboard power generation that burns traditional gas or diesel.



**Injection of CO<sub>2</sub> into Aquifer or Depleted Gas Reservoir through CO<sub>2</sub> Injection Platform**

Sembcorp Marine's subsidiaries, Sevan SSP and Aragon, have participated in the concept studies of Stella Maris CCS project that covers large scale transport & injection of CO<sub>2</sub> in subseas reservoirs / aquifers.



**Floating Gas Liquefaction Unit**

We were awarded the contract by New Fortress Energy for the conversion of two of the Sevan type cylindrical drilling units to floating gas liquefaction units. Scope includes hull modifications and integration of gas liquefaction modules.



## MARITIME DECARBONISATION

### Wind-assisted Propulsion

We partner with our vendors to develop and implement new concept for wind-assisted vessel propelled by wind rotor.

### Reliquefaction System for LNG Carriers

We install reliquefaction system on LNG carriers to eliminate release of boil-off gas and minimise carbon emission.

### Electrification

We have delivered one LNG hybrid tug running on pure LNG and Lithium-ion battery, and three hybrid ROPAX ferries in 2022.

### Alternative Fuels

We provide retrofitting solutions to convert existing engine to take in alternate fuel systems such as methanol, ammonia, hydrogen.

### Onboard Carbon Capture

We are involved in pilot projects to testbed and install carbon capture technologies onboard tankers.



### Hull Shape and Bow Optimisation

We have carried out hull shape and bow optimisation on several of our customers' vessels to reduce fuel consumption and improve stability.

### Air Lubrication

We have a strong track record for air lubrication installations on various vessels including LNG tankers and cruise vessels.

### Sustainable Coating

We promote and apply sustainable coating with no harmful chemicals on vessels to improve fuel efficiency and reduce environmental impact.

### Propulsion Improving Devices

We install propulsion improving devices to assist our customers to improve energy efficiency of their vessels by up to 3-5%.

# DELIVERING INNOVATIVE & SUSTAINABLE SOLUTIONS

## FUTURE-READY OFFSHORE WIND AND CLEANER ENERGY SOLUTIONS

Sembcorp Marine continuously innovates to develop new offshore renewable and cleaner energy solutions. The offshore wind solutions include floating wind turbines, offshore substations and wind turbine installation vessels. Based on our proprietary nearshore terminal design solutions and offshore cylindrical floater, we also provide the energy hub concept, enabling more flexible and efficient systems to overcome the intermittency issue of renewable energy generation.



### FLOATING OFFSHORE WIND TURBINE AND FLOATING SUBSTATIONS

- We have completed initial testing of our cylindrical floating offshore wind turbine (Small Waterplane Area Cylindrical Hull - SWACH) concept in the ocean basin facility at the Technology Centre for Offshore and Marine (TCOMS), Singapore
- Development of a floating HVAC substation, including model testing is ongoing



### SOFIA OFFSHORE WIND FARM PROJECT

- Design, construction, installation and commissioning of the HVDC Offshore Converter Platform for Sofia Offshore Wind Farm
- World's most powerful and longest offshore HVDC system with a 220km DC link installed on Dogger Bank in the United Kingdom (UK) North Sea
- Capacity of 1,400MW to power nearly 1.2 million UK homes with clean and renewable energy

### "SWACH WIND" FLOATING WIND TURBINE FOUNDATION

- Based on proven floater technology
- Excellent motion and robust stability
- Shallow draft for harbour operations
- Simple construction, common shipbuilding
- Suited for industrialisation and scaling
- Passive ballast system
- Large internal (dry) space for additional application

### SEMI-SUBMERSIBLE INTEGRATING VERTICAL ADJUSTABLE MAST (SI-VAM)

- Higher operability leading to lower operating expense
- Effective design for hurricane conditions
- Scalable, modular and improved constructability
- Validated design with Approval In Principle (AIP)





### WIND TURBINE INSTALLATION VESSEL (WTIV)

- Designed to operate at high levels of efficiency and to handle next generation turbines which are larger and performs better
- We secured a contract with Maersk for the construction of Wind Turbine Installation Vessel which will be deployed in the United States



### OFFSHORE WIND SUPPORT VESSELS

- Zero-emission Service Operation Vessels (SOVs) and Crew Transfer Vessels (CTVs)
- Built-in safety and energy-efficient features
- Purpose-designed for the offshore wind market



### LOW MOTION INSTALLATION VESSEL (LMIV)

- Overcomes relative motion between two floating objects, improving weather window substantially
- Reduces capital expense through installation and maintenance by LMIV, a compact vessel with a smaller crane capacity
- Patent-pending design with increased saving and improved availability with higher wind turbine capacity



### ZERO-EMISSION AMMONIA- FUELLED TANKER

- LMG Marin has secured a contract to design world's first green ammonia-fuelled tanker for Grieg Edge
- The tanker will transport and distribute green ammonia fuel to Svalbard, Norway to replace coal-fired power



### CLEAN FUEL CARRIERS / ZERO-EMISSION CONTAINER FEEDER

- Scalable, with Type C containment system
- Modern, compact and highly manoeuvrable
- Zero-emission operation



### ENERGY HUB CONCEPT

- Energy hub concept where clean energy such as ammonia, hydrogen can be produced and CO<sub>2</sub> can be produced, liquefied, re-gasified or CO<sub>2</sub> captured and stored
- Leverage Sembcorp Marine's proprietary Gravifloat design for nearshore terminal or Sevan cylindrical floater design for offshore deployment

# DELIVERING INNOVATIVE & SUSTAINABLE SOLUTIONS

## DIGITAL TRANSFORMATION - CONNECTING THE PHYSICAL AND DIGITAL ASSETS

Sembcorp Marine is a digitally enabled enterprise, keeping abreast of state-of-the-art digital technologies, and deploying them in the two key areas of our business – Digital Yard Operations and Smart Products & Solutions. These implementations connect the physical and digital assets, collectively promote the safety and well-being of our people, enable efficient and economic use of resources, reduce our carbon footprint, improve our productivity and facilitate better governance. In summary, Sembcorp Marine’s digital transformation, at its core, enhances our ESG and sustainability performance and aids responsible value creation.

### REAL-TIME PRODUCTION TWIN

This implementation helps to expedite project execution and engineering completion throughout the assembly and construction phase of the project life-cycle.



### ROBOTIC PROCESS AUTOMATION

The development of robotic process automation capabilities, enabling inspection and monitoring applications for steel plates, blocks and pipes.



### ENERGY MANAGEMENT SYSTEM

We employ advanced monitoring and analytics systems that help to optimise energy consumption, reduce emissions and improve the safety and reliability of operations.



### CYBERSECURE NOTATION

We work with our customers to obtain cyber security class notations, which entails cyber risk vulnerability assessments, implementing mitigation measures commensurate with system criticality, thereby assuring all stakeholders of robust cyber security implementation.



### INQUIRE DIGITAL PLATFORM

INQUIRE is an asset mooring online monitoring digital platform developed in-house, and provides asset integrity assurance and advisory.



# DIGITAL SOLUTIONS



**DIGITAL MONITORING & CONTROL**

We deploy production monitoring digital platform for critical yard assets and processes to monitor and optimise our yard operations.



**4D DESIGN MODELLING**

Our suite of software applications for engineering and project management enables collaboration across silos, and cost, time, resource optimisation.



**ADDITIVE MANUFACTURING**

We have deployed Laser Aided Additive Manufacturing (LAAM), Wire Arc Additive Manufacturing (WAAM) and Hybrid Laser-Arc Welding (HLAW) technologies for complex marine & offshore structures.



**DIGITAL YARD**

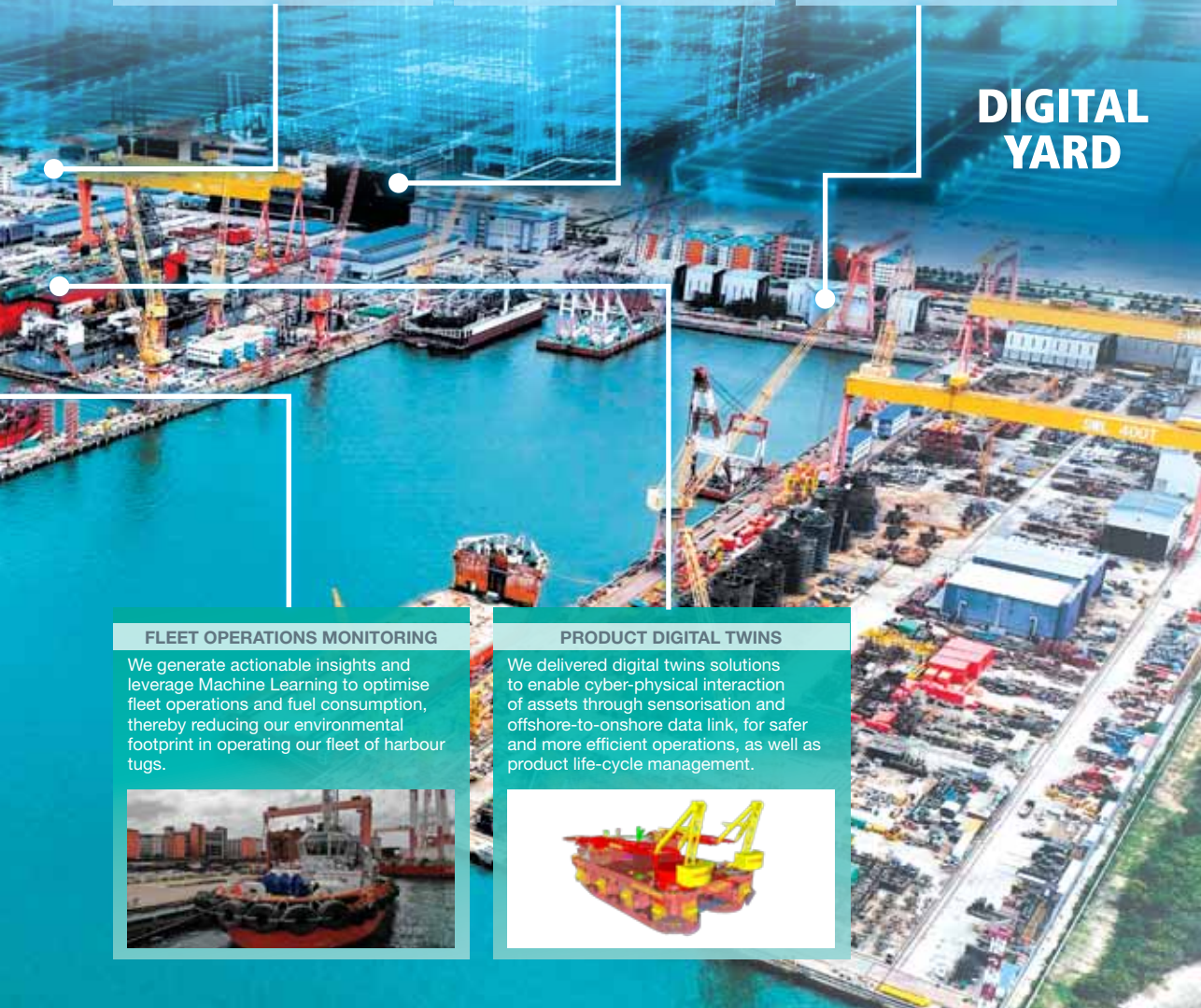
**FLEET OPERATIONS MONITORING**

We generate actionable insights and leverage Machine Learning to optimise fleet operations and fuel consumption, thereby reducing our environmental footprint in operating our fleet of harbour tugs.



**PRODUCT DIGITAL TWINS**

We delivered digital twins solutions to enable cyber-physical interaction of assets through sensorisation and offshore-to-onshore data link, for safer and more efficient operations, as well as product life-cycle management.





**Petrobras-37**, world's largest Floating Production, Storage and Offloading (FPSO) converted in 2000



**Wan Hai 311**, first of six 2,646 TEU container vessels based on Jurong Shipyard's design



**K Freesia**, first LNG Carrier to be repaired outside South Korea



**RV Investigator**, advanced ocean research vessel with Silent R notation



**Q5000**, first well intervention semi-submersible rig built by Jurong Shipyard



**Dudgeon Offshore Substation Platform** deployed for the Dudgeon Offshore Wind Farm



**P-68**, first FPSO project completed by EJA



**CNTIC Vpower Energy**, LNG Floating Storage Unit (FSU) conversion



**Vito**, first floating production unit built by Sembcorp Marine



# FULFILLING THE NEEDS OF OUR CUSTOMERS

SUPPORTING CUSTOMERS AND STAKEHOLDERS TO SHAPE A SUSTAINABLE MARITIME FUTURE





**Deep Driller I**, first proprietary Pacific Class 375 design jack-up rig



**Transocean Honor**, first proprietary Pacific Class 400 design jack-up rig



**Seven Borealis**, Norwegian Maritime Authority (NMA) certified deepwater offshore and construction vessel



**Gyme**, first drilling rig to be awarded a Cybersecurity-Ready Notation by American Bureau of Shipping (ABS)



**Sleipnir**, world's largest and most sustainable semi-submersible crane vessel



**Q7000**, well intervention semi-submersible rig jointly designed by Sembcorp Marine and Helix



**Hornsea Two Offshore Substation Platform** for the world's largest offshore wind farm, Hornsea Two Offshore Wind Farm



**Transocean Altas**, world's first eighth-generation drillship



**Hella**, first of three identical battery-powered Ropax ferries based on Sembcorp Marine's proprietary design

## 60 Years of Proven Track Record and Delivering the Future

This year commemorates the 60<sup>th</sup> Anniversary of Sembcorp Marine. From a single ship repair yard in 1963, Sembcorp Marine has evolved and transformed into an internationally recognised innovative solutions provider in the offshore, marine and energy sectors. Over these six decades, the Group has delivered various significant projects for the global offshore, marine and energy industries to meet the stringent demands and specifications of our customers. With an increasing focus on renewable and clean energy solutions, the Group will continue to support the sustainability goals of our customers in shaping a better world for all.

## FULFILLING THE NEEDS OF OUR CUSTOMERS

The world is rebalancing its energy supply as geopolitical tensions remind us that energy security remains a critical challenge. According to the latest edition of the International Energy Agency (IEA)'s World Energy Outlook, the global energy crisis triggered by Russia's invasion of Ukraine is causing profound and long-lasting changes that have the potential to hasten the transition to a more sustainable and secure energy system<sup>6</sup>.

In 2022, the Group continues to see improvement in orders visibility, underpinned by high oil and gas prices, renewed concerns of energy security in the wake of geopolitical tensions, and acceleration of the energy transition towards renewables. We remain strategically positioned to seize opportunities in oil and gas exploration and production, offshore renewables and the new energy sector.

With the easing of COVID-19 measures and re-opening of economic activities, the Group successfully delivered 12 key projects in 2022. Solutions delivered by our rigs and floaters and specialised shipbuilding units have carried out the health and safety impact assessment for improvement to meet the need of our customers<sup>7</sup>\*. After a two-year hiatus, teams from Sembcorp Marine reconnected with our global customers and partners at various major trade exhibitions to promote the Group's capabilities and sustainable solutions.



### POSIDONIA 2022

Sembcorp Marine Head of Repairs & Upgrades, Mr Alvin Gan, shared the Company's transformational pursuit of future-ready capabilities with the Senior Minister of State for Ministry of Transport, Singapore, Mr Chee Hong Tat. He expounded on strategic investments taken to advance towards a net zero carbon future, in keeping with the global transition to a low-carbon economy.

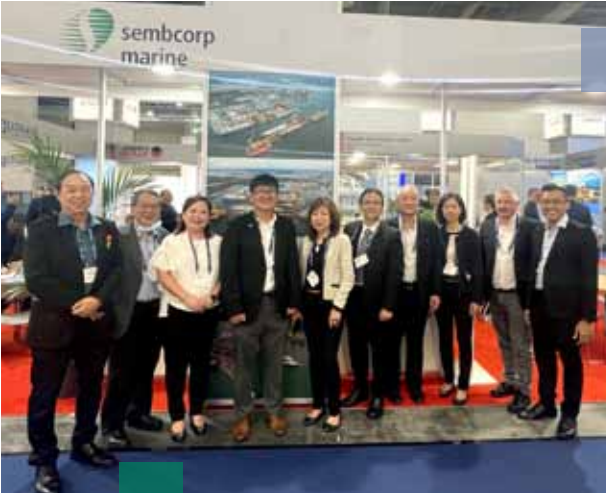
### ONS 2022

Sembcorp Marine representatives from our Singapore and Norway offices showcased our innovative engineering solutions in the Cleaner Offshore and Marine, Offshore Renewables and New Energy sectors at Norway's top energy tradeshow, Offshore Northern Seas (ONS).



<sup>6</sup> World Energy Outlook 2022

<sup>7</sup> There is no such assessment for other product categories.

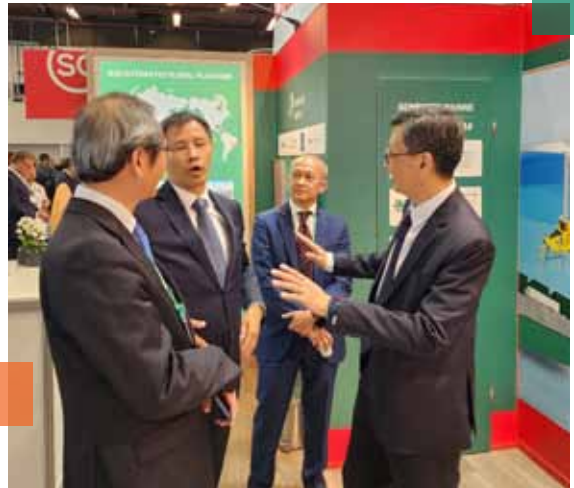


**SMM 2022** 

Representatives from Sembcorp Marine's Repairs & Upgrades unit were at the European's leading trade fair for Shipbuilding, Machinery and Marine Technology (SMM) to connect with maritime partners and players.

**WINDENERGY HAMBURG 2022** 

Sembcorp Marine Senior Vice President of Jack-up Rigs, Mr Wong Teck Cheong, shared the suite of solutions offered by the Sembcorp Marine family such as Aragon, Gravifloat, LMG Marin and Sevan SSP with the Ambassador of the Republic of Singapore to the Federal Republic of Germany, Mr Laurence Bay.



**OSEA 2022** 

Sembcorp Marine representatives showcased our oil and gas capabilities and innovative technologies to local and international audiences on home ground at the Offshore South East Asia (OSEA) 2022.

# FULLFILLING THE NEEDS OF OUR CUSTOMERS

## SUCCESSFUL SAILAWAYS AND DELIVERIES IN 2022

### Contributing to the Sustainable, Security and Affordability of Energies

#### Tyra Topsides Modules and Bridges

On 10 January 2022, Sembcorp Marine completed the final delivery of Topside Modules and Bridges for the Tyra Redevelopment Project. We are pleased to contribute to the redevelopment of Tyra’s energy infrastructure – envisioned to be a high-tech production and natural gas export hub over the next 25 years to support the operators’ pursuit of making their operations more sustainable.



#### Johan Castberg FPSO

Sembcorp Marine delivered the Johan Castberg FPSO vessel to Equinor on 17 February 2022. The vessel is designed to stringent specifications, including Norwegian’s NORSOK standards, Petroleum Safety Authority (PSA) and Det Norske Veritas (DNV) Class Rules, with improved design concept and engineering logic embracing work environment and technical safety requirements, winterisation and other ocean data prerequisites.

#### Dragsvik Ropax Ferry

On 4 July 2022, we completed the handover of Dragsvik, the second of three identical battery-operated roll-on/roll-off passenger (Ropax) ferries to Norwegian ferry operator, Norled AS. Dragsvik has joined sister vessels, Hella (and eventually Leikanger), to operate Norled’s shortsea Hella-Vangsnes-Dragsvik connections. These ferries will augment Norled’s sustainable fleet of innovative zero-emission vessels and contribute to maritime decarbonisation.





### Deepwater Atlas and Deepwater Titan Drillships

Sembcorp Marine successfully completed the delivery of the world's first pair of highest specification drillships, Deepwater Atlas and Deepwater Titan, for Transocean's subsidiary Triton Atlas GmbH on 29 June 2022 and 29 December 2022 respectively. Featuring Sembcorp Marine's proprietary Jurong Espadon 3T design, both drillships are the Group's game-changing eighth-generation drillships built for Transocean. The drillships are the only pair in the world to feature industry-leading net three-million-pound hook-load hoisting capacity and well control systems with ability to accommodate 20,000 psi drilling operations – setting a new frontier for next generation drillship designs. They are designed for enhanced safety, efficiency and sustainability, incorporating greener features for energy efficiency, fuel optimisation and reduced emissions consistent with the industry's goal of contributing to a lower carbon future. The successful completion and delivery of the drillships attest to Sembcorp Marine's progress up the value chain and proven capabilities in providing leading-edge advanced drilling rigs solutions.



### P-71 FPSO

P-71 newbuild FPSO for Petrobras sailed away from our Aracruz yard on 15 October 2022 for deployment at the ultra-deepwater Itapu field in Brazil's Santos Basin. The FPSO features high production capacity, advanced operating technologies and emissions reduction.

Despite pandemic-related challenges, we successfully delivered the FPSO on schedule, cementing our status as a premier facility in Brazil.

# FULLFILLING THE NEEDS OF OUR CUSTOMERS

## SIGNIFICANT NEW CONTRACT AWARDS

### A Trusted Partner in Contributing to Customers' Sustainability Goals

#### Sturgeon WTIV

On 19 March 2022, we secured a contract from Maersk Supply Services for the construction of a Wind Turbine Installation Vessel (WTIV).

With this contract win, the Company strengthens its position in the renewable energy segment as an innovative engineering solutions provider.

WTIV Sturgeon project achieved its key strike steel milestone on 13 October 2022.



#### Hornsea 2 Offshore Substation and Reactive Compensation Station

On 4 November 2022, our wholly-owned subsidiary Sembmarine SLP secured a Planned Preventative Maintenance (PPM) contract from Ørsted for the Hornsea 2 Offshore Wind Farm Offshore Substation (OSS) and Reactive Compensation Station (RCS). This exclusive contract signifies Sembmarine SLP's strategic transition from fabricator to leading maintenance service provider of offshore renewable solutions. The award of the PPM contract follows the successful fabrication of the OSS and RCS at our Admiralty Yard and subsequent completion of the offshore installation, hook-up and commissioning of these platforms on-site at the Hornsea 2 Offshore Wind Farm in March 2022.

#### NAPant Support Vessel

On 14 June 2022, we secured an Engineering, Procurement and Construction (EPC) contract from Emgepron, a state-owned company linked to the Ministry of Defence in Brazil for a newbuild support vessel, the NAPant. The vessel will be designed and built in Brazil for Proantar, a Brazilian Antarctic Programme, for scientific research deployment in the Antarctic. The NAPant will be built to navigational ice field standards, classified as P-6.

The project will be executed through our Aracruz yard in Brazil.



## NFE's Floating LNG Liquefaction Facilities

On 20 October 2022, we entered into Master Service Agreements with New Fortress Energy (NFE) Inc. affiliates for the engineering and conversion of two Sembcorp Marine's proprietary Sevan cylindrical drilling vessels to Floating LNG (FLNG) liquefaction facilities, including the fabrication and integration of LNG topside modules. The two FLNG liquefaction units will host the NFE-designed Fast LNG liquefaction production facility with a capacity of approximately 1.4 million tonnes per annum (mtpa). This marks the first set of two Sevan cylindrical hulls to be re-purposed into FLNG liquefaction facilities.

New Fortress Energy and Sembcorp Marine witnessed the strike steel on 28 November 2022, marking the official commencement of the conversion of the NFE first FLNG liquefaction facilities.

*"These landmark FLNG conversion projects signal the broadening of our capabilities to provide customised solutions to clients across the energy value chain. Over the years, Sembcorp Marine has advanced its EPC capabilities towards solution-driven initiatives through investments in technology companies such as Sevan SSP. Our continuous R&D efforts have also enabled Sembcorp Marine to successfully develop and commercialise our proprietary designs and solutions like this FLNG conversion and our WTIV for the cleaner energy and renewables segment awarded earlier this year. Sevan SSP circular hull design also offers excellent solutions for the electrification of offshore hydrocarbon production units, offshore wind floating substations and converter platforms, and carbon capture, utilisation and storage (CCUS) applications."*

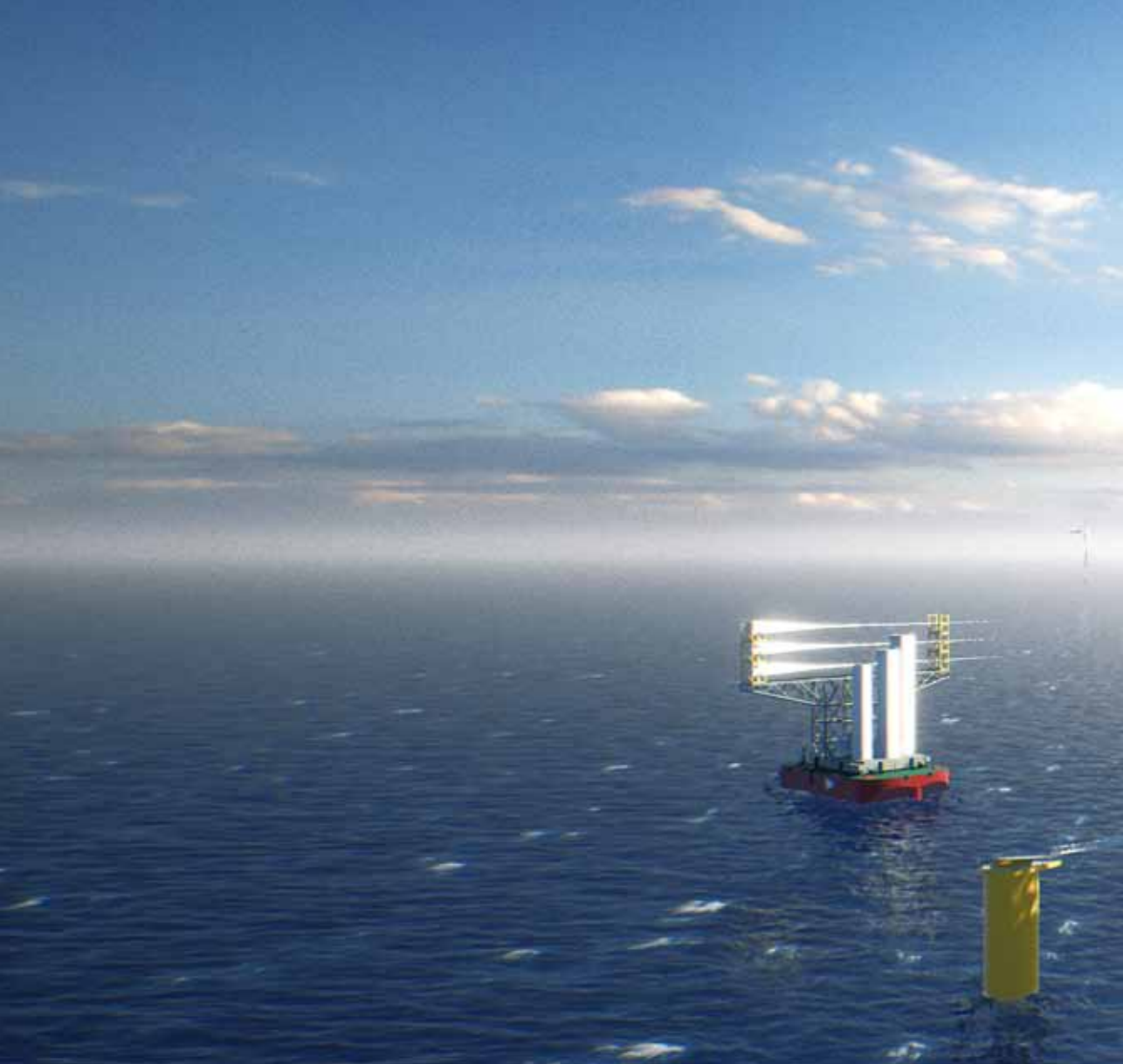
*- Mr Wong Weng Sun, former President & CEO of Sembcorp Marine*



## P-82 FPSO

On 4 October 2022, we have been awarded an EPC contract for the P-82 FPSO vessel through an international tender from Brazilian state-owned oil and gas producer, Petroleo Brasileiro S.A.

The new build FPSO will be one of the largest vessels to be deployed in the Buzios field, an ultra-deepwater oil and gas field covering an area of 853 km<sup>2</sup> in the pre-salt Santos Basin, about 180 km off the coast of Rio de Janeiro, Brazil. The P-82 is part of Petrobras' new generation of production facilities with high production capacity and technologies to reduce CO<sub>2</sub> emissions.



# STRENGTHENING ENVIRONMENTAL RESILIENCE

PROTECTING THE PLANET AND CREATING  
SUSTAINABLE VALUE FOR ALL OUR STAKEHOLDERS





*Photo credit: Maersk Supply Services*

## **Climate change presents opportunities for Sembcorp Marine to pivot firmly into growing renewables business**

In 2022, Sembcorp Marine has secured a contract for the construction of a Wind Turbine Installation Vessel (WTIV). Based on Maersk Supply Services' unique design in collaboration with Sembcorp Marine, the WTIV feeder solution is a breakthrough design in the offshore wind market.

The vessel is constructed using 75% of green electricity tapped from the 6.228 MWp solar panel installed on the steel fabrication facility at our Tuas Boulevard Yard.

Landmark WTIV project win strengthens Sembcorp Marine's position in the renewable energy segment.

# STRENGTHENING ENVIRONMENTAL RESILIENCE

## CARING FOR OUR OCEAN



Our ocean, the largest living entity, covers more than two-thirds of our planet. This blue source of life connects us from food provision, transportation to renewable energy sources.

In Sembcorp Marine, we recognise that the impact of our actions matter, and are committed to safeguarding the ocean.

### Our Ocean Commitment

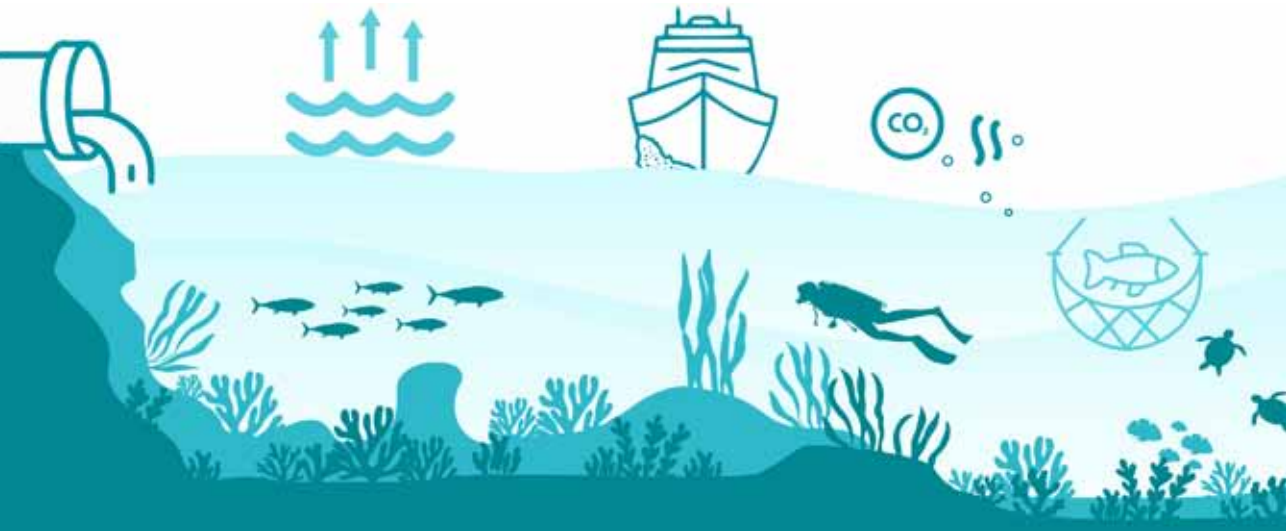
<b>Safeguard Our Ocean and Its Biodiversity</b>	<b>Offer Sustainable Solutions for Deeper, Harsher, Colder Frontiers</b>	<b>Adopt Safer, Smarter and Sustainable Yard Operation and Practices</b>	<b>Align Towards International Goals and Principles</b>
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Our engineering capabilities support implementation of green technologies and sustainable solutions for customers. We procure and utilise environmentally-friendly materials and adopt industry's best practices and standards for design of solutions. A risk-based approach (HAZID, HAZOP) for vessel design ensures reliability during operations and minimises impact on the marine environment.

The Sembcorp Marine's Marine Laboratory (right), a 55-metre long barge in-house marine laboratory was set up in 2011 to support the development of a chemical-free ballast water management system (Semb-Eco LUV BWMS) for mitigating the transfer of bio-invasive species at sea. The Semb-Eco LUV BWMS has obtained International Maritime Organisation (IMO) and United State Coast Guard (USCG) dual type approval and has been commercialised on seven projects. Research on corrosion and biofouling is also conducted on the laboratory.



Hazardous materials are handled onboard daily. As per the European Union (EU) Ship Recycling Regulation, in-service ships of 500 gross tonnage or over calling at any EU port or anchorage are required to hold a valid and certified Inventory Hazardous Material (IHM). Sembcorp Marine designs vessels that optimise the use of Earth's precious resources responsibly and efficiently, and minimises the use of hazardous materials. With deep know-how and engineering capabilities, Sembcorp Marine assists customers with obtaining required IHM notation compliance and certifications from classification societies and worked closely with various service providers to obtain the necessary compliance and certifications.



To promote collaboration and strengthen partnerships with all stakeholders across our value chain in biodiversity conservation activities, we served as a sponsor for the World Ocean Summit Asia-Pacific 2022 as also presented at a panel sharing session on Technology to Power a Blue Maritime Sector. Our senior management serves on the St John's Island National Marine Laboratory (SJINML) committee, Singapore's only offshore marine research facility managed by the National University of Singapore. We are currently also collaborating with external stakeholders on development testing for sustainable coating solutions.

Sembcorp Marine jointly co-hosted the Marine Environment Protection of the South-East Asian Seas (MEPSEAS) Technology Conference on November 16, 2022 with IMO and Maritime & Port Authority of Singapore (MPA). This conference assists developing ASEAN countries on ways to address high-priority marine environment issues related to ships and shipping by implementing IMO's key international environmental conventions. The 2022 MEPSEAS Technology Conference focused on the IMO Ballast Water Management Convention, and was attended by representatives from IMO as well as overseas delegates from Cambodia, Indonesia, Malaysia, Philippines, Thailand and Vietnam.

Sembcorp Marine also participated in a workshop organised by the Indonesia Ministry of Transportation on "Indonesia's Readiness to Implement the Ballast Water Management (BWM) Convention" and presented the Semb-Eco LUV BWMS. This workshop was organised by the Indonesia Ministry of Transportation to encourage adoption of BWMS for Indonesian-flagged vessels for the implementation of the IMO BWM Convention, which will serve as an example for other neighbouring countries on the implementation, monitoring and enforcement of the BWM Convention.

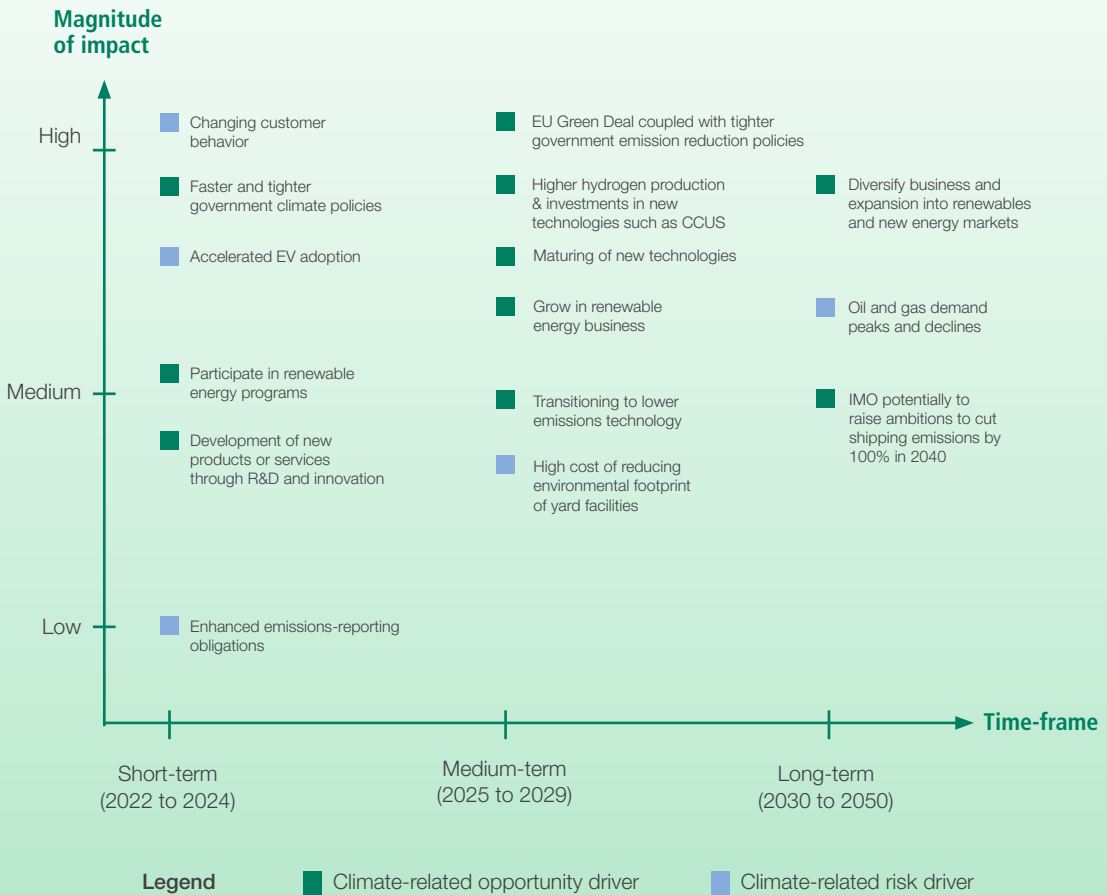


# STRENGTHENING ENVIRONMENTAL RESILIENCE

## OUR CLIMATE-RELATED RISKS AND OPPORTUNITIES



The potential impacts of climate change pose multiple challenges in the short, medium and long-term stability and continuity of Sembcorp Marine. In 2021, we identified and managed climate-related risks and opportunities for the company, based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We further developed our risk processes and strategies, and enhanced our TCFD risk framework and methodology in 2022, which we plan to integrate with our enterprise risk management (ERM) process and a preliminary risk register. An overview of the short-term, medium-term, and long-term risks and opportunities is shown below.



We will continue to review our risks and opportunities in 2023, with an emphasis on stress-testing our business strategy against various scenarios and quantifying possible financial impacts.

Our strategies to address these risks and opportunities include investment in intellectual property, technology and solutions covering i) strategic strengthening of yard facilities and ii) proactive diversification and expansion into new markets.



Scan for more information on our TCFD disclosures

## STRATEGIC TRANSFORMATION OF YARD FACILITIES

Transitioning to renewable electricity is a significant driver of emissions reduction in our operations. We are constantly reviewing our climate programmes to reduce emissions in our operations. With four of our largest yards – Tuas Boulevard Yard, Admiralty Yard, Aracruz Yard, Batam Yard – certified to ISO 14001 Environmental Management System, our operations go beyond compliance with relevant environmental regulations and requirements as we manage the risks and opportunities brought about by climate change. To tackle rising sea levels, our Tuas Boulevard Yard and Aracruz Yard are built at higher datum levels.



In 2022, our Tuas Boulevard Yard and Admiralty Yard have achieved the ISO 50001 Energy Management System certification by TUV SUD PSB and ABS respectively.

We scaled our solar photovoltaic installation at our Tuas Boulevard Yard to 8.5MWp in 2022, avoiding more than 3,200 tCO<sub>2</sub>e emissions.

On 18 January 2023, we celebrated the naming of our first of a series of LNG hybrid tugs, JMS Sunshine, specially designed for domestic service in Singapore.

With the aim of having every new forklift in our Tuas Boulevard Yard to be electrically-powered by 2025, we are moving towards the implementation of electric-powered forklifts and electric charging stations in our yard to reduce our reliance on diesel.

## PROACTIVE DIVERSIFICATION AND EXPANSION INTO NEW MARKETS

As part of our efforts to build resilience to climate risks, we are diversifying our business portfolio towards supporting a sustainable and decarbonised economy. This includes exploring the use of new fuels such as wind, electrification, ammonia, hydrogen and methanol. We also provide energy-efficient and low emission engineering solutions to support ship owners, oil and gas drilling and production customers to comply with more stringent fuel and emission regulations, including IMO regulations, through retrofits, upgrades and newbuilds.

To enable transition through our value chain, the Group continues to facilitate maritime decarbonisation by collaborating with Global Centre for Maritime Decarbonisation (GCMD) and other like-minded industry partners to grow engineering expertise and promote the safe adoption of alternative fuels. Through these collaborations, valuable outcomes have been achieved, such as the development of robust technical references for the bunkering of ammonia fuel.



Our sustainable solutions in the offshore wind supply chain enable seamless transition of the energy sector. These include:

- Wind Turbine Installation Vessel for Maersk Supply Services
- Sofia Offshore Wind Farm Offshore Converter Platform (left)
- Offshore Substation and Reactive Compensation Station for Ørsted's Hornsea 2 Offshore Wind Farm
- Wind Turbine Jacket Foundations for Jan De Nul's Formosa 2 Offshore Wind Farm

# STRENGTHENING ENVIRONMENTAL RESILIENCE

## OUR CLIMATE ACTION AND COMMITMENT



Decarbonisation of our operational footprint is at the core of our climate programme. We are committed to reduce our energy consumption, and motivated to develop solutions to help our customers reduce their own emissions. We are progressively transitioning to the use of renewable energy to reduce our Greenhouse Gas (GHG) emission to meet the environmental targets published in our Sustainability Report 2020.



Read pages 36 and 37 of our SR2020 on our environmental targets

We maintain our unwavering commitment to reducing our operational carbon footprint through various innovative digital and sustainable solutions. Our pursuit of operational excellence extends beyond our organisation and includes our subsidiaries. One such endeavour is our tug fleet renewable programme with Jurong Marine Services (JMS). A roadmap for a fleet of tugs to capitalise on the latest green technologies has been developed which includes the first-of-its-kind LNG Hybrid Tug, JMS Sunshine. Estimated to reduce 251 tCO<sub>2</sub>e annually, JMS Sunshine is a product of in-house engineering expertise and clean build techniques using our solar-powered automated robotic workshops to ensure a truly low carbon investment. When operational, JMS Sunshine will leverage Wartsila Voyage, a location service for asset visibility and deployment. This operational tool will also predict the estimated fuel consumption and streamline her deployment to ensure the responsible use of our resources.

Our total energy consumption in FY2022 was 1.221 million gigajoule (GJ)\*, a 15.8% decrease compared to our consumption in FY2021 and our GHG emissions was 114,183 tCO<sub>2</sub>e, a 20.3% decrease compared to our emissions in FY2021. This is primarily attributed to the reduced activities from two of our yards in Singapore which have ceased operations. Our energy intensity for the same period was 0.018 GJ/man-hour.

We aim for 40 per cent reduction in our GHG emissions (Scope 1 and 2) by 2030 as compared to 2008. This will be achieved by a combination of energy efficiency measures as well as strategic use of renewable energy.

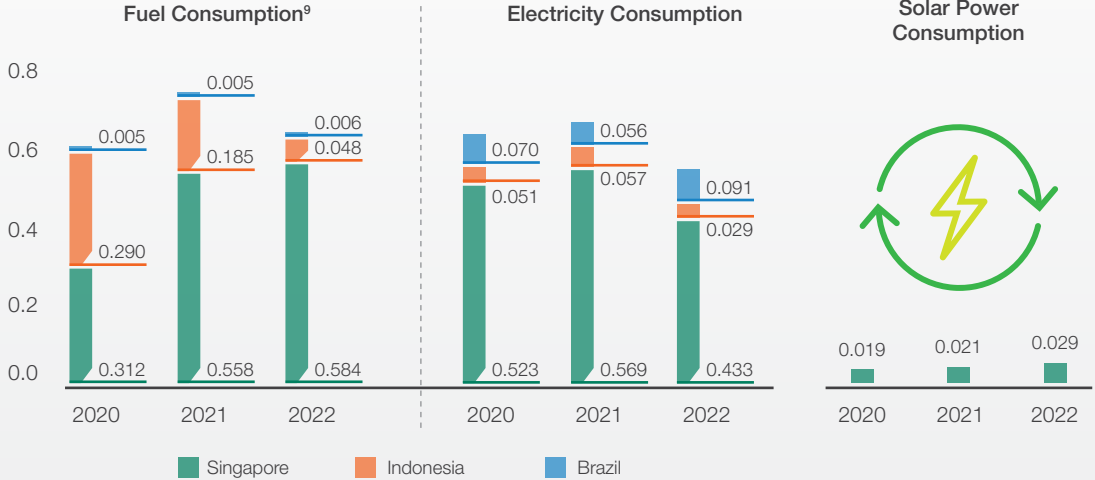


*JMS Sunshine is classed by ABS and has a Cyber Secure 1 notation to safeguard the asset from growing cyber threats faced by the marine and offshore industry.*

### ENERGY CONSUMED<sup>8\*</sup> (MILLION GJ)

**Non Renewable**  
(total: 1.192 million GJ)

**Renewable**

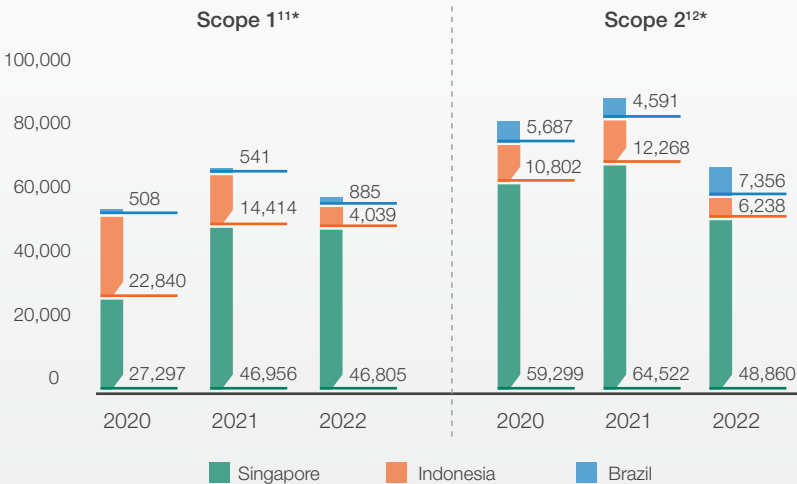


<sup>8</sup> Our energy sources include electricity, diesel, LPG, CNG, acetylene and solar energy.

<sup>9</sup> Net Calorific Values (NCV) were sourced from World Resources Institute (WRI)/World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol Emission Factors for Cross Sector Tools (March 2017). NCV for acetylene was referenced from S. McAllister et al., Fundamentals of Combustion Processes (2011).

### GHG EMISSIONS<sup>10</sup>(tCO<sub>2</sub>e)

**Non Renewable**  
(total: 114,183 tCO<sub>2</sub>e)



Solar panels installed at Tuas Boulevard Yard generated 8,097 MWh of electricity, equivalent to:

Avoiding emissions of approximately

**>3,200**  
(tCO<sub>2</sub>e)

<sup>10</sup> Operational control approach is used to identify the GHG emissions. The boundaries of our reported emissions currently comprise our shipyards operating in Brazil, Indonesia and Singapore, excluding joint ventures.

<sup>11</sup> Emission factors (EF) were sourced from WRI/WBCSD Greenhouse Gas Protocol Emission Factors for Cross Sector Tools (March 2017). Only CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O 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. Fundamentals of Combustion Processes (2011).

<sup>12</sup> 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 (2022) – List of Grid Emission Factors version 11.0. Only CO<sub>2</sub> 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.

# STRENGTHENING ENVIRONMENTAL RESILIENCE

## PROTECTING OUR EARTH



The Group optimises the use of Earth’s resources in each phase of the project life-cycle through sustainable engineering, design for circularity, responsible sourcing, digital production, efficient facilities and waste management. This effort is centred on the principle of our E4Rs programme. Sembcorp Marine has also been a long-time trusted partner in repurposing and revitalising ageing assets.

Steel, copper, welding materials and paint products are the key raw materials uses in our production. In FY2022, the Group used a total of 56,442 metric tonnes\* of steel, copper grits, steel grits, steel shots compared to 56,861 metric tonnes in FY2021 and a total of 1,188,481 litres\* of paint and thinner compared to 1,060,742 litres in FY2021.

**semcorp marine**  
**Simple Ways To Reduce Our Environmental Footprint**

Let's help make the world a better place by changing our lifestyle habits to reduce our impact on the environment.

**Deadline for Quiz Submission is 31st August! Scan the QR Code and do it NOW!**

**SCAN ME**  
**TAKE THE TBY ECO-AWARENESS QUIZ TODAY AND STAND A CHANCE TO WIN ATTRACTIVE PRIZES! WINNERS WILL BE ANNOUNCED IN SEPTEMBER!**

**01** Ensure that your appliances are in good working condition. This practice maximizes efficiency and uses less energy.

**02** Turn off and unplug all appliances when not in use.

**03** Make sure all faucets are not leaking, and don't leave them running when not in use. Every drop counts!

**04** Lessen the use of single-use plastics.

**Manage your waste! E4Rs!**

- **Eliminate** any unnecessary use of resources or substitute with environmentally friendly ones.
- **Reuse** any items that can be repurposed in other ways.
- **Reduce** the items you use. What can you do away with?
- **Recycle** items properly.
- **Recover** and repair items when possible instead of buying new ones.

**BY HSE DEPARTMENT**

To ensure that waste generated is handled, segregated and disposed of in compliance with applicable local environmental laws and regulations, our waste management policies and procedures are reviewed regularly. We engage only licensed waste vendors to collect the waste generated by our yards for disposal or recycling. We also conduct audits on the vendors to ensure that the waste collected has been disposed correctly.

We use weigh bridges to monitor and track our general and hazardous waste at each site and this is further supplemented by waste manifests provided by waste management vendors. In FY2022, the Group generated a total of 167,117 tonnes\* of waste of which 142,268 tonnes\* of waste (85%) was recycled. There is an increase in the amount of waste recycled as we sent the paint drums in our Singapore operations for offsite recycling in FY2022.

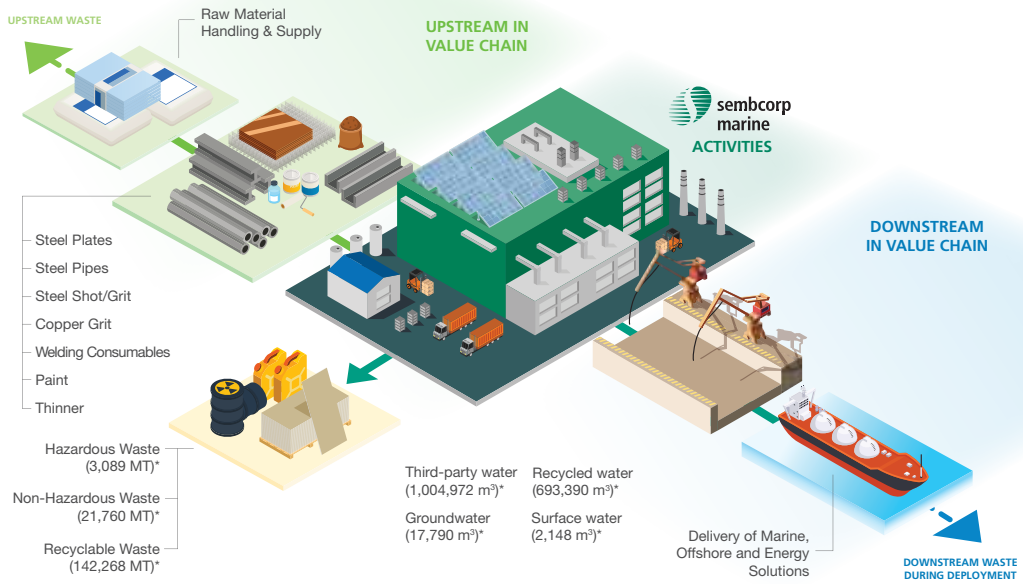
*Our Health, Safety & Environment department conducts an annual Eco Awareness Quiz competition to promote environmental awareness and sustainability with our employees.*

As part of Sembcorp Marine’s effort to conserve water, we conduct regular monitoring and leak checks in our yards’ water pipe network and installed water-saving devices in the yards. Where possible, we use recycled water. Water discharged from our yards is treated in accordance with the environmental discharge limits and effluent standards in the countries of operation. The Group conducted awareness campaigns on water conservation to promote responsible water consumption.

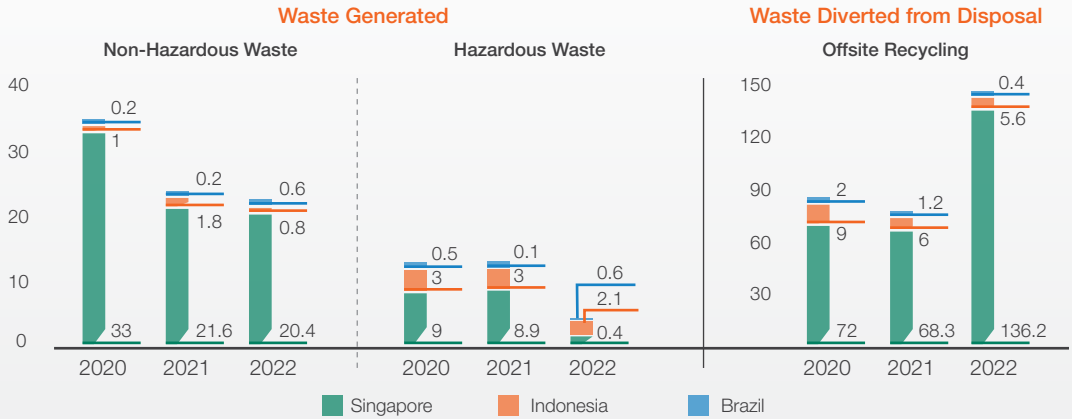
Municipal water and recycled water (NEWater – used in Singapore yards) are the main sources of water that we withdrew for our operation. The Group withdrew a total of 1.718 million m<sup>3</sup> of water in FY2022 which is a 1.8% decrease from 1.750 million m<sup>3</sup> withdrawn in FY2021.



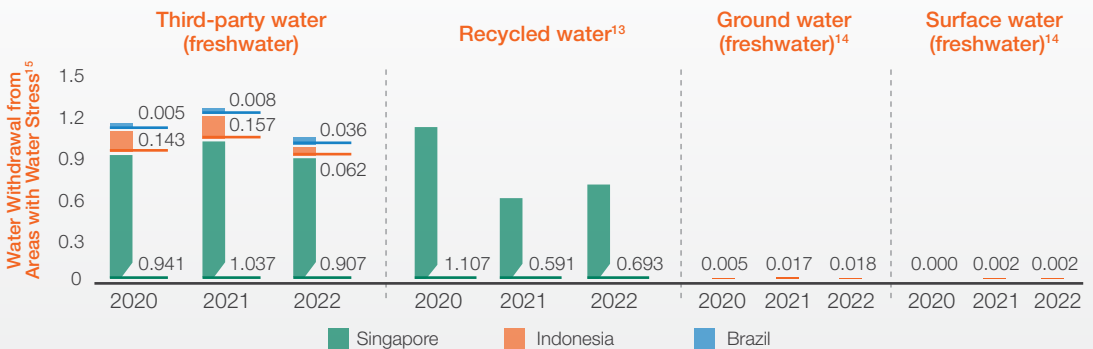
## OUR PROCESS FLOW OF INPUTS, ACTIVITIES AND OUTPUTS



## WASTE BY TYPE\* ('000 tonnes)



## WATER WITHDRAWAL BY SOURCE\* (mil m<sup>3</sup>)



<sup>13</sup> Recycled water (NEWater) is used only in Singapore.

<sup>14</sup> Ground water and Surface water are used only in Indonesia.

<sup>15</sup> The water stress index was obtained from the World Resources Institute 'Aqueduct Water Risk Atlas'. Singapore and Indonesia are considered to be areas of low water stress while Brazil is considered a medium-high water stress area.



# NURTURING OUR HUMAN CAPITAL

EMPOWERING AND DEVELOPING OUR PEOPLE TO CREATE A SKILLED WORKFORCE FOR THE FUTURE ECONOMY





## Celebrating Years of Service and Contribution

Sembcorp Marine recognise the contributions of its long serving employees on 8 and 12 December 2022, at Long Service Awards ceremonies held at Tuas Boulevard Yard and Admiralty Yard. A total of 1,206 employees with lengths of service from 10 years to 50 years were awarded with certificates and gifts. Among the recipients, 16 employees have worked at Sembcorp Marine for 50 years. Thank you to all our long-service employees for their many wonderful years of hard work!



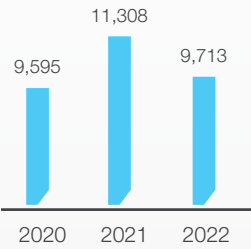
# NURTURING OUR HUMAN CAPITAL



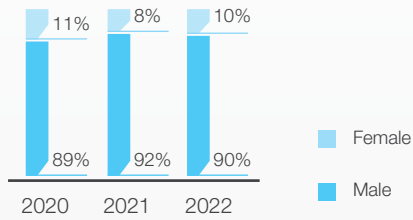
People are at the core of our business. We value our employees and embrace the diversity and expertise they bring to the Group. We are committed to the growth, well-being and safety of our employees. We provide a conducive work environment that aims to help them reach their full potential. We respect human rights across our operations and value chain. Our human rights practices are aligned to various national and international frameworks, including the United Nations Sustainable Development Goals.

## HIGHLIGHTS OF OUR WORKFORCE

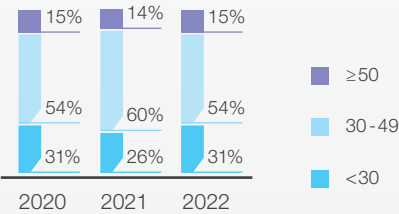
Total Number of Employees\*



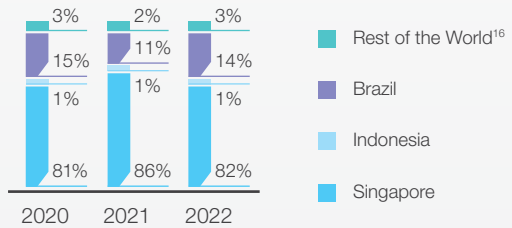
Total Number of Employees by Gender\*



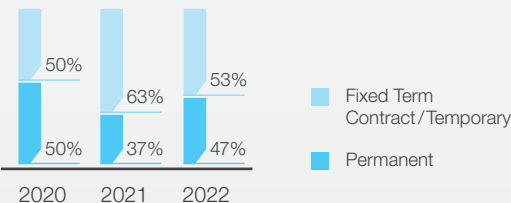
Total Number of Employees by Age Group\*



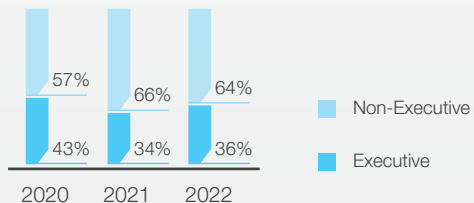
Total Number of Employees by Region\*



Total Number of Employees by Employment Contract



Total Number of Employees by Employee Category\*

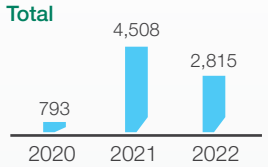


<sup>16</sup> Rest of the world includes Norway, USA, Malaysia, Poland, France and United Kingdom.

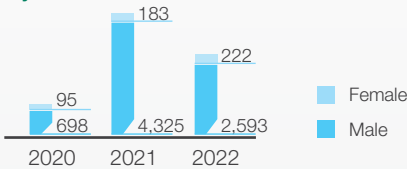
## FAIR EMPLOYMENT & EQUAL OPPORTUNITIES

Sembcorp Marine is committed to fair employment and equal opportunities. We practise sustainable employment by fostering an inclusive culture and an equal-opportunity work environment. We constantly enhance and align our practices to international standards.

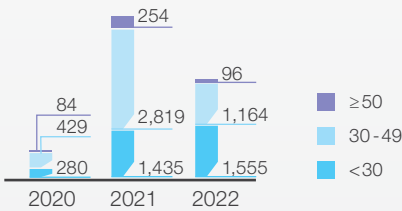
### NEW HIRES<sup>17\*</sup>



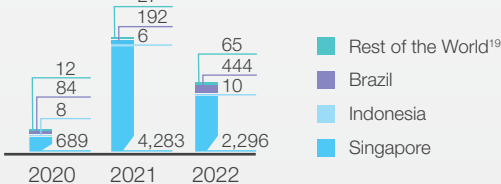
#### By Gender



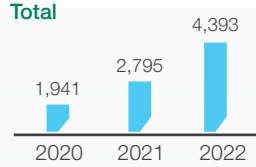
#### By Age Group



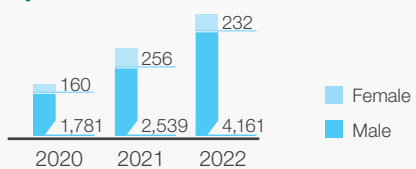
#### By Region



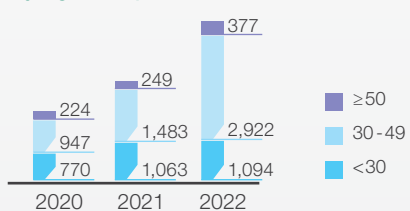
### TURNOVER<sup>18\*</sup>



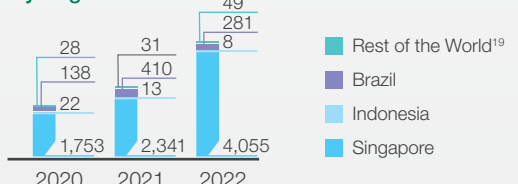
#### By Gender



#### By Age Group



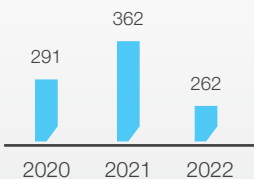
#### By Region



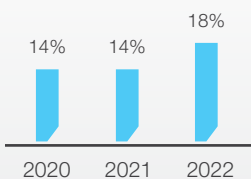
The Group appreciates the depth of knowledge and experience that people beyond the statutory retirement age can offer. In 2022, we offered 262 contracts to our employees past the statutory requirement age in Singapore.

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

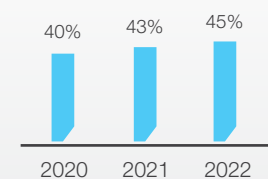
### Contracts offered to people past the statutory requirement age in Singapore



### Females in Operations roles In Singapore executive workforce



### Females in Commercial and Corporate Services in Singapore executive workforce



<sup>17</sup> New hires rate is computed based on number of new hires divided by yearly average headcount.

<sup>18</sup> Employee turnover rate is computed based on number of attrition divided by yearly average headcount. In 2021, we have a one-time special hiring of workers. The increase in turnover is due to the returning of these workers after project completion.

<sup>19</sup> Rest of the world includes Norway, USA, Malaysia, Poland, France and United Kingdom.

# NURTURING OUR HUMAN CAPITAL

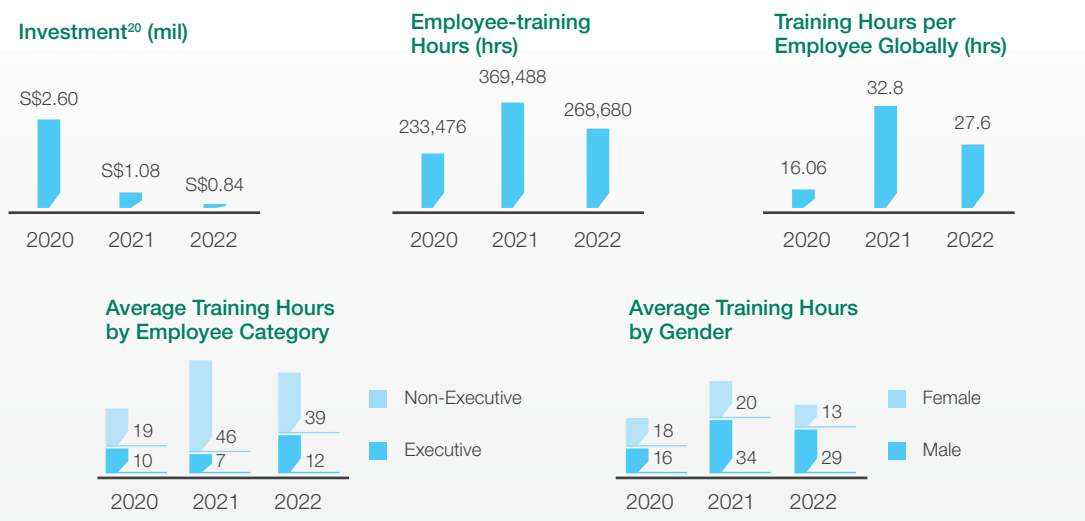
## WORKFORCE CAPABILITY & COMPETENCY DEVELOPMENT

In 2022, we continue to invest in the development of our workforce to promote a culture of continuous learning and improvement. To enable our employees’ holistic development and support them to achieve their fullest potential, every job role in the organisation is mapped to our four key learning thrusts\*:

 <p><b>Total Workplace Safety &amp; Health (WSH) Excellence</b></p> <p>With training, employees will have an understanding of the need for good WSH Excellence practices and possess the necessary knowledge and skills to achieve Total WSH Excellence. Qualified and certified competent employees are able to meet the prerequisite WSH qualifications as required by the local authorities and legislations, and customer’s operating standards.</p>	 <p><b>Skills &amp; Competence</b></p> <p>The training programmes aim to equip our employees with the necessary technical and functional competencies that enable them to be an expert in their field and perform their jobs effectively and professionally.</p>	 <p><b>Innovation &amp; Productivity</b></p> <p>Employees undergo training programmes to understand the importance of innovativeness. They appreciate embracing change and moving beyond the status quo and conventional thinking which are key to business continuity. Our employees will be equipped with competencies to stay innovative and productive, and they are able to keep abreast of the latest technological inventions and applications.</p>	 <p><b>Growth &amp; Development</b></p> <p>The training programmes enable our employees to possess the right personal growth mindset that will enable them to continually upgrade and improve themselves. Employees are responsible for their own learning and should discuss with their supervisors to ensure effective contribution to the achievement of both business and career goals.</p>
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Our Sembcorp Marine Academy has developed several e-Learning modules to keep up with market trend. These modules include “Global Offshore Wind Development”, “Ammonia as a Marine Fuel” and “Hydrogen as an Alternative Maritime Fuel For Zero Emission”. Our employees have also attended courses on Offshore Wind Farm conducted by Hitachi ABB and Offshore Wind Value Chain and Turbine Technology (Part 1 & 2) course co-organised by Association of Singapore Marine Industries (ASMI) and Nanyang Technological University (NTU). These courses have significantly geared up our Engineering Design Team’s competency in the latest trends and developmental area in offshore wind value chain. We have also sent 320 employees to attend a workshop on iFall Fall Experience Simulator (FES), which is intended for employees, especially those who work at heights, to experience a 2-metre free-fall, as well as, other obstacles such as experiencing falling objects and structural collapse.

## RESKILLING AND UPSKILLING OUR GLOBAL WORKFORCE



<sup>20</sup> Trainings are conducted mostly in-house and on the job in 2022.

## EMPLOYEE ENGAGEMENT & WELL-BEING

At Sembcorp Marine, we value the health, safety and welfare of our employees. We continuously strive to provide support to our migrant workers, including improving the living standard and encouraging healthy living at our in-house dormitories.

As part of our migrant workers' welfare and inclusion programme, we built a new exercise area and an additional recreational indoor activity room at our Alaulia Lodge in 2022. We have also organised outdoor sports activities such as Sepak Takraw, Basketball and Volleyball. We value open communication with our employees and have installed new vending machines (including selections of bread and instant noodles) and ensure that all rooms are fitted with one portable water dispenser with hot and cold water options.



Our migrant workers participating in a carom game to enhance their social and mental well-being



Our migrant workers enjoying a chess game to increase their concentration level and ability to see from someone else's perspective



We constructed a new exercise area to promote healthy living



We installed new vending machines and portable water dispensers at our Alaulia Lodge for our migrant workers to grab a snack or drink conveniently

## UPHOLDING HUMAN RIGHTS



### OUR HUMAN RIGHTS PRINCIPLES & PRACTICES

#### INTERNATIONAL STANDARDS & PRINCIPLES

#### SEMBCORP MARINE'S POLICIES

Human Resources Policy	Code of Business Conduct	Supplier Code of Conduct	Collective Bargaining Agreements
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#### SEMBCORP MARINE'S COMMITMENT & FOCUS

Labour Rights	Employee Rights
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Over the years, Sembcorp Marine has continuously remained devoted to upholding our pledge towards human rights and fair labour practices in Singapore and overseas.

Locally, we ensure that we are well aligned to the standards advocated by Singapore Tripartite and have committed to sustainable employment practices by Singapore Business Federation. Our policies and Code of Business Conduct and Supplier Code of Conduct further encapsulate our Human Rights expectations on employees, vendors and suppliers.

On an international scale, we are recognised for our good practices in the Supplier Code of Conduct. Our commitment to Human Rights is articulated in Sembcorp Marine's Human Resource policies which follow the social performance guidelines in the SA8000 standard.

Our subcontractor management team conducted regular assessments and periodic audits on contractors' dormitory. On 30 August 2022, they conducted an audit on a factory-converted dormitory and found non-compliance in three areas. Feedback was provided to the dormitory to further improve the facilities.



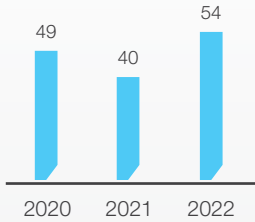
Scan for more information on our human rights commitment

# NURTURING OUR HUMAN CAPITAL

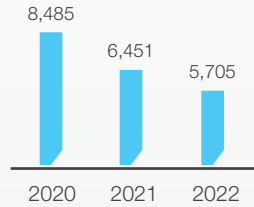
## TALENT PLANNING & LEADERSHIP DEVELOPMENT

Talent planning and leadership development are crucial to ensure business sustainability. We continue to nurture our employees to be well-equipped with leadership skills that create values for our stakeholders. In 2022, we also offered internship to 43 students who have thus gained memorable experience and deeper knowledge of the work environment in our advanced and sustainable yard through real-life exposure of the industry.

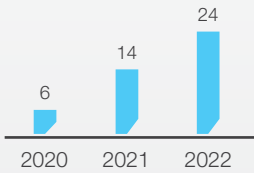
Employees seconded to our overseas subsidiaries



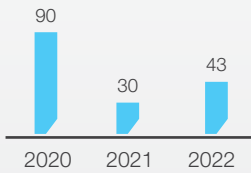
Global workforce received performance appraisals and career development reviews<sup>21</sup>



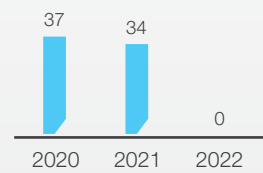
No. of job fairs participated



No. of interns attached to our yards in Singapore



No. of scholarships offered to students from various institutes<sup>22</sup>



*I really enjoyed my internship with Sembcorp Marine! There are just so much to see and learn in this mega shipyard. The company provided me with an extensive exposure and gave me an opportunity for career exploration and development. I am thankful for this internship experience, it is extremely fulfilling and filled with countless invaluable experiences.*

**- Koh Ru Lin Jesphne, Year 3 Marine Engineering student at Singapore Institute of Technology (SIT)**

*I learnt both the tangibles, such as the technical aspects involved, like planning the fabrication process of a jack-case, as well as the intangibles such as the strong work ethic and the high standards required of our work. My biggest takeaway would be the new long-term relationships and connections which I had forged with my colleagues who gave me advice and offered encouragement in my future career.*

**- Yeo Jun Jie (right), Year 3 Marine Engineering/Naval Architecture student at SIT**



<sup>21</sup> An increase in the number of turnover resulted in the reduction of performance appraisals and career development reviews being carried out.

<sup>22</sup> No new scholarship was offered in 2022 due to the Group's ongoing transformation.



Sembcorp Marine received the Distinguished Partner Award at the Institute of Technical Education (ITE) 30<sup>th</sup> Anniversary celebration held at the ITE Headquarters & ITE College Central on 30 June 2022, recognising our strong partnership with ITE in developing the capabilities of ITE staff and students and enhancing opportunities for learning and development. The Sembcorp Marine-ITE partnership started as far back as the 1980s when ITE was then known as the Vocational & Industrial Training Board. Our steadfast sharing of expertise and resources, including internship placements and scholarships, and facilitating sharing of technology for ITE staff and students were affirmed by the institution.



As part of our **insight** programme to reach out to young talents, we invited a total of 43 faculty members and students from SIT to visit our Tuas Boulevard Yard. The visits were held on 13 and 15 December 2022. Students were given a site tour to visit ongoing projects such as LNG Bunker Vessel, Zero-emission Battery-powered ROPAX ferry, Deepwater Titan and steel structure fabrication workshop. Sembcorp Marine continues to remain committed in engaging our pool of young talents to spark students' interest and passion in offshore and marine engineering.



# U Safe Forum and Awards 2022

Strengthening the Fundamentals

Guest-of-Honour: Mr. Zaqy Mohamad

Senior Minister of State, Ministry of Defence & Ministry of Manpower

1 November 2022



## PROTECTING OUR PEOPLE

STRIVING TO CREATE AND PROMOTE A HEALTHY  
AND SAFE WORK ENVIRONMENT FOR ALL OUR  
STAKEHOLDERS



**Achieved new construction record of 38 million man-hours without compromising high Health, Safety, Environment and Quality (HSEQ) standards and rigorous verification processes**

Sembcorp Marine delivered the Johan Castberg FPSO vessel to Equinor on 17 February 2022. The Johan Castberg FPSO project has attained laudable safety achievements of "Target Zero", "Zero Harm" and "Safety Starts with Me" goals and recorded 38 million man-hours without serious incidents. The cumulative Total Recordable Incident Rate (TRIR) stands at 0.16, one of the lowest ever recorded for a new build project.

# PROTECTING OUR PEOPLE

Health, Safety and Environment is key to Sembcorp Marine and its operations. We are committed to promoting a safe and healthy work environment for our customers, employees, contractors and the community. Since 2019, the Group has adopted a robust HSE integrated management system as part of its journey towards achieving its Workplace Safety and Health (WSH) 2028 Vision Zero incidence goal. As guided by our three key HSE strategic thrusts – Deepen WSH Ownership, Focus on Workplace Health and WSH Advancement with Technology, we aim to eliminate harm to people, property and the environment through the implementation of a series of safety initiatives across the Group.

## OUR HSE VISION



### ZERO Harm to People, Property & Environment




#### KEY PRINCIPLES<sup>23</sup>

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

### STRATEGIC OBJECTIVES

Reduce workplace injury rate and achieve Vision Zero	Eliminate hazards that lead to occupational disease and promote good workforce health	Integrate WSH into digitalisation and technology ecosystems
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### WSH 2028 STRATEGIES THRUSTS

<p><b>THRUST 1</b></p>  <p><b>Deepen WSH Ownership</b></p> <p>Create and foster a workplace with positive WSH practices, strong leadership, and a culture of Prevention, Trust and Care</p>	<p><b>THRUST 2</b></p>  <p><b>Focus on Workplace Health</b></p> <p>Strengthen prevention of occupational diseases, advocate the importance of good industrial hygiene and step up efforts on workers' inherent health conditions</p>	<p><b>THRUST 3</b></p>  <p><b>WSH Advancement with Technology</b></p> <p>Embrace and adopt technological developments in our daily operations to continuously improve WSH performance</p>
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### OUR WORK IN 2022

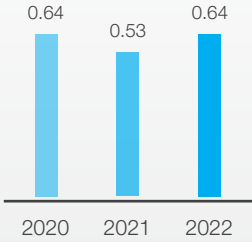
<ol style="list-style-type: none"> <li>1. Organised the second Contractor Partners Town Hall in-person meeting on 1 July 2022 with Sembcorp Marine's Management and Contractor Partners</li> <li>2. Conducted a Safety Time-Out (STO) programme on 1 September 2022</li> <li>3. Organised our annual HSE Carnival from 28 - 30 November 2022 to promote safety and health at the workplace. The HSE Carnival comprised of fitness challenges, health screening and talks, and HSE exhibitions</li> <li>4. Won a total of 29 HSE related awards</li> </ol>	<ol style="list-style-type: none"> <li>1. Organised Heat Stress Management Campaign to educate workers on heat injury, sustain work productivity and accident prevention</li> <li>2. Organised a Hearing Conservation Programme and Noise Monitoring to raise awareness among staff and prevent Noise Induced Hearing Loss (NIHL) as a result of exposure to excessive noise levels</li> <li>3. Launched our first "Workplace Mental Well-being Day" on 10 October 2022 to foster employees' mental well-being at work</li> </ol>	<ol style="list-style-type: none"> <li>1. Organised WSH Innovation Convention 2022 at our Tuas Boulevard Yard and Admiralty Yard in April 2022 and March 2022 respectively</li> <li>2. To enhance our Company Emergency Response Team's (CERT) firefighting capability, each team leader is equipped with a handheld thermal imaging camera to locate hot spots and people faster when every second counts</li> </ol>
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<sup>23</sup> Aligned with the recommendations of WSH 2028 by WSH Council, Singapore.

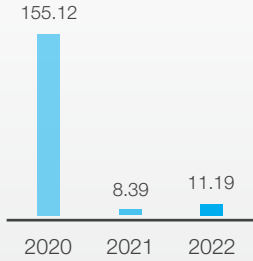
## OUR HEALTH AND SAFETY PERFORMANCE

### SINGAPORE

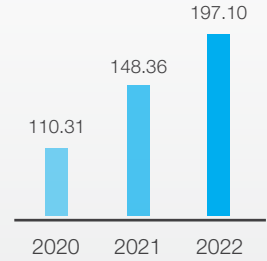
ACCIDENT FREQUENCY RATE PER MILLION MAN-HOURS WORKED (AFR)



ACCIDENT SEVERITY RATE PER MILLION MAN-HOURS WORKED (ASR)

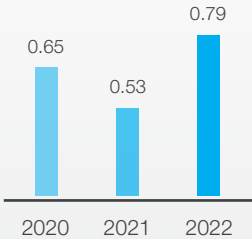


WORKPLACE INJURY RATE PER 100,000 EMPLOYED PERSONS (WIR)

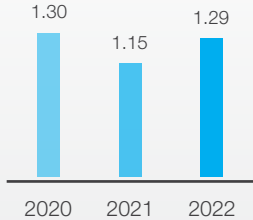


### SINGAPORE AND OVERSEAS<sup>24,25</sup>

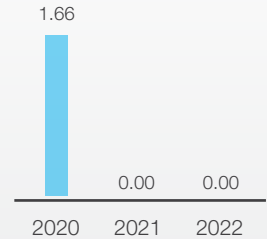
LOST TIME INJURY RATE PER MILLION MAN-HOURS WORKED<sup>26</sup> (LTIR)



TOTAL RECORDABLE INCIDENT RATE PER MILLION MAN-HOURS WORKED<sup>26</sup> (TRIR)



FATAL ACCIDENT RATE PER 100 MILLION MAN-HOURS WORKED<sup>26</sup> (FAR)

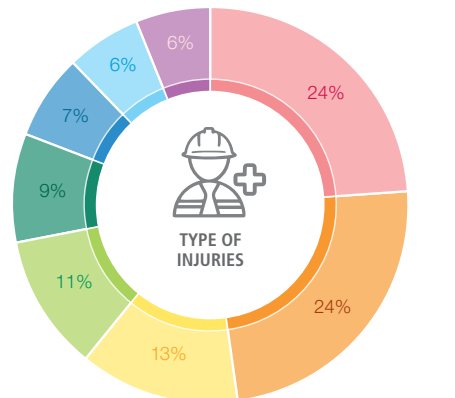


We measure our health and safety performance using a combination of leading indicators, lagging indicators and performance targets. Select leading indicators, such as our Hazard Identification Tool (HIT), are used to identify strengths and weaknesses in our health and safety systems, and to highlight areas where we need to act upon issues or risks with the potential to result in an incident, injury or illness.

Our primary lagging indicators for measuring health and safety performances are Total Recordable Injury Rate (TRIR), Lost Time Injury Rate (LTIR) and Fatal Accident Rate (FAR). Our TRIR rate increased slightly from 1.15 in 2021 to 1.29 in 2022, while the LTIR also saw an increase from 0.53 in 2021 to 0.79 in 2022.

The Group is pleased to report that there is no fatality in 2021 and 2022.

The Group's health and safety objective remains Zero Harm, and ensuring everyone returns home safely to their families. We will continue to enhance our WSH 2028 Strategic Thrusts and strengthen our workplace safety and health.



- Struck by Moving Objects
- Struck Against Objects
- Shot by High Pressure
- Slip and Trip
- Caught In Between Objects
- Fall from Ladder/Staircase
- Struck by Falling Objects
- Contact with Hot Substances

<sup>24</sup> Health and safety statistics from our local and overseas operations such as Singapore, Brazil, Indonesia and United Kingdom.

<sup>25</sup> The tables in this section include performance data from our direct employees as well as our on-site contractors and their employees.

<sup>26</sup> Aligned with International Association of Oil & Gas Producers Standards (IOGP).

# PROTECTING OUR PEOPLE

## DEEPEN WSH OWNERSHIP

Strong WSH ownership and culture are core for business sustainability.

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

Yard-level HSE committees comprise over 600 management and worker representatives in 2022, and collectively represent more than 24,000 employees and contractors.

Since 2020, all our yards in Singapore, Indonesia and Brazil have been certified to ISO 45001 Occupational Health and Safety Management System. In addition to identifying opportunities for improvement, HSE programmes are implemented to promote safe practices at the workplace. For example, our Safety Time-Out (STO) initiative focuses on the identification and mitigation of operational risks through employees' active review, communication and validation of work processes throughout a project. Key risks identified in a project may include:



Fire and explosions



Collapse of structures



Work-at-height and electrical hazards

We communicate safety measures and update on internal workplace accidents and occupational diseases during Vessel Safety Coordination Committee meetings, monthly WSH Committee meetings, monthly WSH Sub-committee meetings and daily toolbox meetings. Weekly management inspections are conducted with our customers to drive good housekeeping for a safe and clean workplace. We also organise Contractor Partners Town Hall meetings to share safety practices and encourage greater ownership of workplace safety and health among our stakeholders.

In 2022, the Group invested 44.0% of total training hours on HSE, as compared to 48.5% in 2021. We continue to ensure our employees, contractors and other personnel operating in our shipyards receive the latest HSE tools, skillsets, knowledge, awareness and competency to work in a safe manner.

### STRONG PERFORMANCE WITH 29 AWARDS



2  
WSH PERFORMANCE AWARDS

22  
SHARP AWARDS

29  
WSH AWARDS

2  
SUPERVISORY AWARDS

1  
PT KARIMUN MERIT AWARD

1  
U SAFE - NTUC AWARD

1  
NALCOM AWARD

In 2022, Sembcorp Marine bagged a total of 29 WSH awards. The strong performance is a testament to Sembcorp Marine's commitment towards WSH Excellence.

- We scored 26 wins at Workplace Safety and Health (WSH) Award 2022. The record haul of awards follows successive years of strong performance at WSH annual event.
- We received the Best Safety Award from the Republic of Singapore Navy.
- Our Admiralty Yard received the U Safe Champion Award from National Trades Union Congress (NTUC). The U Safe Champion Award is awarded to unionised companies who have demonstrated exemplary efforts in upholding workplace safety standards by reducing the Workplace Injuries Rate, taking effort to care for the workers' health and mental well-being.
- Our Karimun yard in Indonesia received the Certificate of Merit from Governor of the Riau Islands. This Certificate of Merit is awarded to Companies that have formed and implemented the Occupational Safety & Health Advisory Committee (P2K3) programme on a regular basis.

Sembcorp Marine works closely with our stakeholders to collectively raise WSH standards, promote safety and health at work, embrace best practices to uphold Industry Standards, including Codes of Practice and WSH Guidelines. Representatives of Sembcorp Marine Management team are members of the WSH Council’s WSH (Marine Industries) committee and Association of Singapore Marine Industries (ASMI) WSH Committee.

*Deepening WSH ownership and upholding good WSH standards require collective efforts from all stakeholders. Safety is always a priority in Sembcorp Marine’s operations. As WSH practices and culture strengthen, we continue to play an active role and contribute to promoting WSH culture, thus ensuring best WSH practices among our stakeholders.*

*- Alex Teo (right), Sembcorp Marine Head of HSE & ASMI WSH Committee Chairperson*



A STO is a WSH response measure that involves the temporary suspension of the company’s operations to review risk assessment, improve site safety, and communicate the importance of WSH to all workers.

In line with the Ministry of Manpower (MOM) implementation of new “Heightened Safety” measures, a STO programme was conducted on 1 September 2022 for all work processes with a focus on vehicular-related risks (e.g. with lorries, prime movers, forklifts, cranes, wheel-loader). Various departments participated in the programme by taking time to Plan, Prepare and Execute (PPE) the work safely and ensure risk control measures are in place.

We also conducted the mandatory STO to review our safety procedures and complete the STO activities as per the STO checklist.

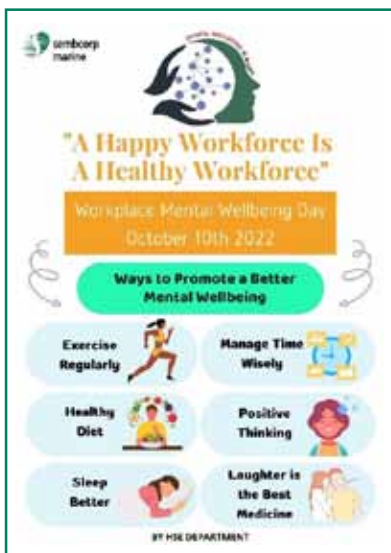
On 1 November 2022, Sembcorp Marine was invited to the Safety Collaboration Forum 2022, the first collaboration safety event with key members of IOGP including British Petroleum, Chevron, ExxonMobil, Shell, and TotalEnergies. The forum’s objective was to demonstrate active roles in collectively influencing behaviours and performance through sharing effective practices, and resilience to risk. Participants have committed to play an active role in making the industry safer and more efficient. Approximately 220 participants attended the two-day event at the Woodlands Waterway Marriott Hotel & Convention Center, Houston, Texas, USA.

# PROTECTING OUR PEOPLE

## FOCUS ON WORKPLACE HEALTH

A safe and supportive working environment has a positive impact on the mental, physical health and productivity of the workers and employees. Sembcorp Marine is cognizant that a happy and healthy workforce is critical to the long-term success of the business.

Our Total WSH Service Centre framework focuses on Safety & Occupational Health, Physical Health, Infectious Disease, and Mental Health. Over the years, various workplace health and wellness programmes have been implemented for each of these four areas to create awareness, promote healthy lifestyle and enable early detection, intervention and control of diseases.



Sembcorp Marine believes that mental health and well-being of our staff is key to our organisational success and sustainability. We take a proactive and preventative approach to improve mental well-being at the workplace, and are focused on ensuring positive outcomes for at-risk workers.

As part of the Company's WSH Campaign and to further raise awareness of the importance of mental wellness, we launched our first "Workplace Mental Well-being Day" on 10 October 2022 with the Safety Slogan: "Every Fist Bump Represents a Heartfelt Appreciation". All workers were given a small token of appreciation in the form of chocolate or cheese wafers, and they also engaged in a "fist bump" engagement through action with Supervisors and Management.

Workforce engagement plays a crucial role in the strengthening of our safety culture in Sembcorp Marine. Regular Mass and Tool-Box briefings, carried out throughout the yard also regularly include topics on mental well-being. Handouts and sharing mental well-being are part of these briefings.



## WSH ADVANCEMENT WITH TECHNOLOGY

WSH Technology is a key enabler to improve workplace safety and WSH outcomes as it changes the way work is performed. Sembcorp Marine leverages technology and innovation to drive higher WSH standards in our operations. In 2022, our Tuas Boulevard Yard and Admiralty Yard held the WSH Innovation Conventions for employees to present solutions invented to improve safety and health standards at our workplaces.



We increased the use of latest technology in automation, robotic and advanced manufacturing in our operation for improved quality, production efficiency and safe operation. The use of advanced robotic and computerised technology in our automated steel structure fabrication workshop and robotic welding shop minimise our workers' exposure to physical and electrical hazards.



The Material Elevator Trolley is designed to help workers transport tools and materials which previously required the use of a crane or which were carried manually. This trolley frees up the use of the crane for other operational activities and also eliminates the need for manual handling by the workers which may cause exertion and fatigue.



Bevelling is a common activity in a shipyard, typically carried out by oxy-fuel cutting. This involves manual surface grinding which poses a health and safety risk to workers because of the posture and position the workers need to be in, and also the exposure to high levels of noise and vibration. The innovative Automate Bevel Grinding (ABG88) machine eliminates the use of manual work and also reduces workers exposure to safety and health hazards during this process.



Manual lifting and shifting of small sized objects such as valves, pipe fittings, work pieces is a routine task for workers and poses risks such as musculoskeletal, finger and hand injuries. The Ergo-Lift Trolley which is based on a fulcrum and lever system, allows one worker to safely lift and move loads of less than 50kg. This trolley minimises the risk of injury and improves the portability and mobility of work flow with reduced manpower.



# CARING FOR OUR COMMUNITIES

DRIVING POSITIVE IMPACT TO UPLIFT COMMUNITIES  
WHERE WE OPERATE



## Making a Positive Difference to Society

We support sustainable and environmental initiatives that drive change and create positive social impact. In 2022, Sembcorp Marine and its employees participated in various community-based partnership and industry programmes.

# CARING FOR OUR COMMUNITIES

In line with our core value of Community Responsibility, Sembcorp Marine is committed to being a responsible corporate citizen, both locally and globally, by building a caring organisation and contributing to the community. Our community engagement strategy is aligned with the United Nations Sustainability Development Goals and ISO 26000 Guidance on Social Responsibility. Since 2019, the Group has focused on supporting community programmes in five areas - Youth and Education, Environmental Care, Community Care, Active Lifestyle, and Industry Outreach.

To ensure that our community engagement efforts have sustained impact, we thoroughly measure, track, and evaluate our social impact. Our community activities were conducted locally by our operating units in Singapore, Brazil and Indonesia, covering 100%\* of Sembcorp Marine's operations within the scope of this report (2021: 100%).



### YOUTH & EDUCATION

Support strategies and efforts to provide youth and adults with equal access to education and learning opportunities



### ENVIRONMENTAL CARE

Promote sustainable use of natural resources and protection of our ecosystems



### COMMUNITY CARE

Foster community spirit and provide support to the less privileged



### ACTIVE LIFESTYLE

Promote an active, vibrant and healthy community



### INDUSTRY OUTREACH

Encourage and promote effective public, public-private and civil society partnerships

Invested more than **\$2.88 million\*** in community programmes globally<sup>27</sup>

**882** youths and students benefited from our support for educational programmes

Dedicated **3,978** volunteering hours towards community programmes

<sup>27</sup> Sembcorp Marine is committed to an upfront sum of \$2,892,694 in Sewage Treatment System Programme and will annually disclose the community investment pertaining to this programme over 10 years from FY2020.

## SUPPORTING INDUSTRY DEVELOPMENT THROUGH PARTNERSHIPS

Sembcorp Marine senior management staff contributed their time and knowledge in various industry associations and public councils where they hold appointments to enhance the level of collaboration to advance sustainability development efforts of the marine industry.

### OUR KEY PARTNERS



To support the development of offshore and marine curriculum in tertiary education in Singapore, our former President & CEO, Mr Wong Weng Sun, served as Chairman of the Singapore Institute of Technology-Newcastle University (SIT-NU) Industry Advisory Committee for joint-degree programmes in marine engineering, naval architecture and offshore engineering. He also sat on the Industry Advisory Panel of Nanyang Technological University School of Mechanical and Aerospace Engineering.

In 2018, the Group initiated the Sembcorp Marine **insight** programme to enhance the students' learning experience and deepen their understanding of industry practices and operation processes through site visits, sharing by operation specialists and witnessing mega-structures.

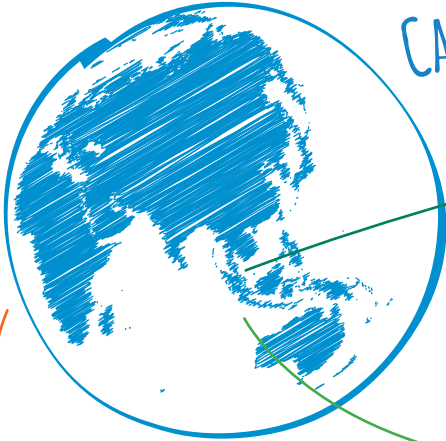
After a two-year hiatus, we hosted more than 30 students and professors from Singapore Institute of Technology (SIT) at our Tuas Boulevard Yard in December 2022.

*"Sembcorp Marine's Tuas Boulevard Yard is really a very modern shipyard and uses automation and digitalisation extensively. It is well positioned to play a major role in helping the world in our energy transition journey, building offshore and maritime structures and vessels for hydrogen production and transport, CO<sub>2</sub> sequestration, etc. Happy to meet some SIT graduates working in Sembcorp Marine and seeing them doing very well. Sembcorp Marine clearly captures the importance of advanced engineering work and I am glad that our students are excited to intern there and subsequently joined Sembcorp Marine."*

**- Professor Chua Kee Chaing, President, SIT**



# CARING FOR OUR COMMUNITIES



## CARING GLOBALLY

### INDONESIA



Our employees from our Batam and Karimun yards volunteered **528** hours to conduct Community English Course Programmes for Children, Teenager & Adult of Teluk Paku & Teluk Senang, Internship Programmes for Vocational School & Polytechnic Student and sharing real welding knowledge to align curriculum and study materials for the Welding major at the Vocational School.

**S\$2,487** was contributed by our Batam yard for basic necessities and kitchen building materials for an orphanage, benefitting 45 children.

Our Karimun yard donated a set of jerseys and volleyballs to Meral Barat and Youth Forum Pasir Panjang for players in the tournament selection of the DANDIM CUP 2022.

### BRAZIL



Our Aracruz yard contributed **S\$177,200** for scientific research projects such as the monitoring of habitat use and movement patterns of the grouper (*Epinephelus itajara*) between the Ports of Jurong and Portocel and their adjacent region in Aracruz, the development of social technologies for the sustainable use of macroalgae on the coast of Espírito Santo, using new technologies to estimate the carbon stock in regenerated forests on the coast of Espírito Santo, and the Diagnosis and Disinfection of Water for Residential Use and Chemical contaminants on beaches in Espírito Santo.

**S\$61,235** was contributed by our Aracruz yard for a social project in the Tupinikim Indigenous village to build a changing room, garden and gym, and fencing the area for 3,740 people.



Our Aracruz yard donated 500 food baskets to 2,500 victims of the rains and 1,000 bread for a children's cultural event through a fund of **S\$10,293**.

# SINGAPORE



Sembcorp Marine launched the Employee Volunteer Scheme from 15 April 2022. As part of the community engagement thrust of our corporate social responsibility programmes, the Employee Volunteer Scheme enables our employees to make a positive difference to society, advancing causes within Sembcorp Marine Community Engagement Framework. With this scheme, our employees are granted

paid Volunteer Leave to participate in volunteer activities organised by Sembcorp Marine or their personal volunteer activities with the relevant approval.

In 2022, we have also initiated new community activities. Together with employees at St Luke's Eldercare Centre, 58 of our employees brought fun and joy to the elders through various monthly engagement activities such as arts and crafts, singing and Christmas celebration started from October 2022.

**S\$160,550** was distributed through Sembcorp Marine's School Book Assistance Grant (SchoolBAG) for 795 students.

We awarded **S\$90,600** in bursary grants to 85 children of employees.

**S\$49,803** raised through our employees for the Community Chest Share Programme.



To support the cause of building a sustainable and resilient ocean economy, Sembcorp Marine participated in the World Ocean Summit Asia-Pacific 2022 as bronze sponsor and Mr Simon Kuik, Head of R&D, shared his insights on how to best utilise innovations in technology for a greener maritime sector.



**850** local and regional students from primary and secondary schools, Junior College (JC) and Institute of Technical Education (ITE) and tertiary institutions submitted **216** projects in Sembcorp Marine's year-long Green Wave Environmental Care Competition.

More than **50** employees from our Admiralty Yard volunteered to clean up the slipway inside the yard and coast of Sembawang Beach.

To promote active living in the community and employees, Sembcorp Marine sponsored and participated in the ASMI Bowling Tournament and ASMI Golf Championship held in 2022.



From left to right: (1) Mr Kristian Utkilen, Managing Director, Aragon AS (2) Mr Torbjorn Bringedal, Managing Director of LMG Marin AS (3) Mr Vincent Rudelle, Managing Director of LMG Marin France (4) Mr Alf-Roger Skikstein, Managing Director of Sevan SSP AS (5) Ms Line Bliksmark, Marketing Manager of Sevan SSP AS (6) Mr Alfred Moujaes, Managing Director of Sembmarine SSP Inc



# OPERATING A RESPONSIBLE BUSINESS

COMMITTING TO HIGH STANDARDS OF GOVERNANCE, ETHICS AND TRANSPARENCY, ACCOUNTABILITY, A PROACTIVE RISK MANAGEMENT CULTURE, AND REGULATORY COMPLIANCE





## Strengthening our Culture of Compliance and Transparency

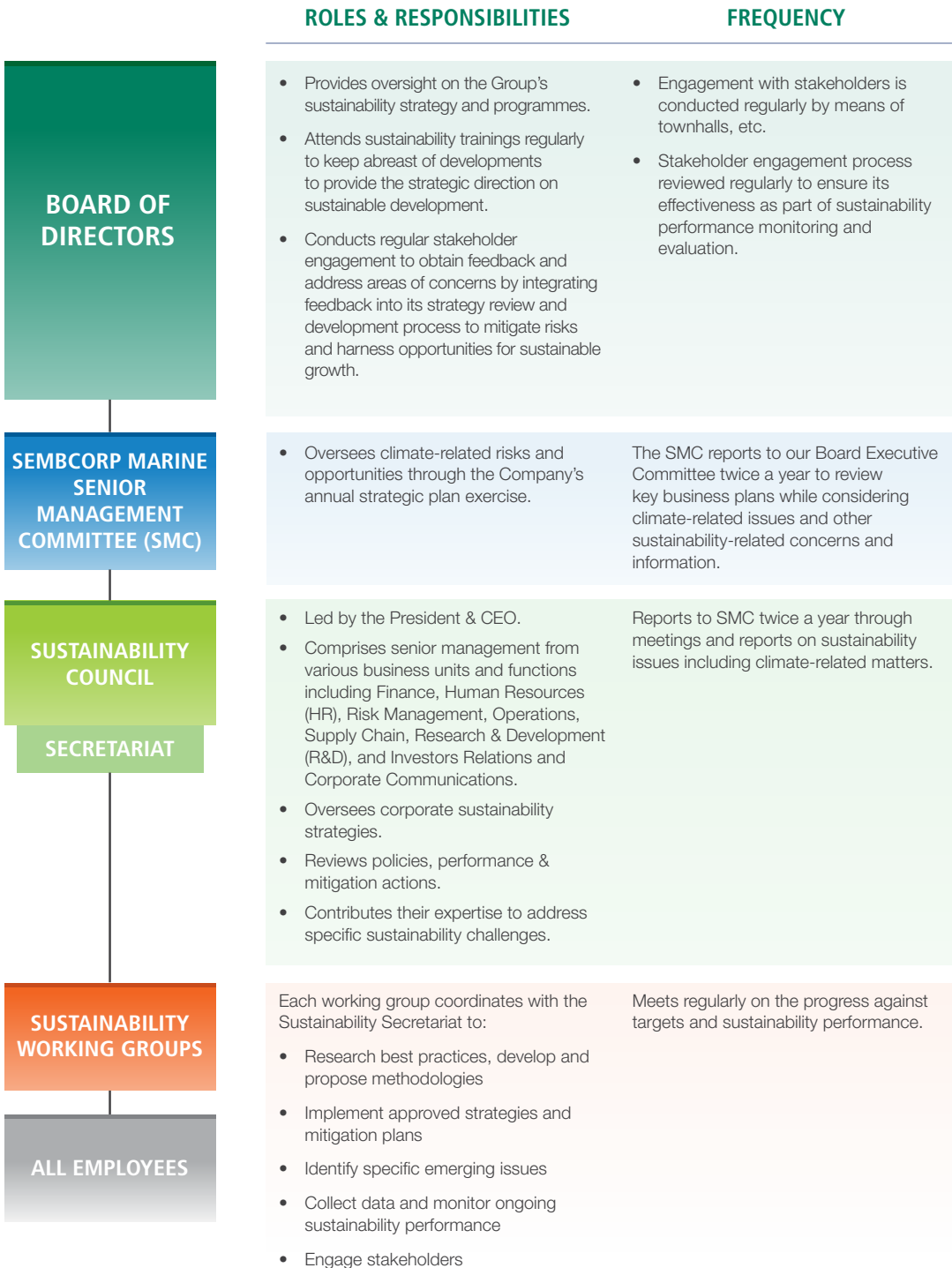
On 1 July 2022, the Norwegian Transparency Act entered into force. Our Norwegian technology companies established common standards and practices to promote respect for human rights and decent working conditions across their supply chains.

# OPERATING A RESPONSIBLE BUSINESS

## SUSTAINABILITY GOVERNANCE

High standards of governance are essential in sustaining the Group’s businesses and performance. We work closely with our stakeholders to meet stringent compliance in all areas.

### OUR SUSTAINABILITY GOVERNANCE STRUCTURE



2022 HIGHLIGHTS

**NO** material incidents of non-compliance

**ZERO\*** legal actions for anti-competitive behaviours, anti-trust, and monopolistic practices (2021: zero)

**ONE\*** report received of discrimination or exploitative labour practices relating to the Group's operations or suppliers (2021: no report received)<sup>28</sup>

Conducted internal audit for ISO 37001 Anti-bribery Management System (ABMS)

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 training**

Achieved today: **7,040** employees\* (72%)

<b>3,172 (33%)</b> are executives* and	<b>6,659 (69%)</b> are from Singapore*	<b>210 (2%)</b> are from Brazil*
<b>3,868 (39%)</b> are non-executives*	<b>39 (0%)</b> are from Indonesia*	<b>132 (1%)</b> are from the rest of the world <sup>29*</sup>



Operating a responsible business through a robust governance structure and system enables the Group to push forward and build on its sustainability efforts.

<sup>28</sup> Due to the lack of substantiation on the allegation of discrimination, no remediation was carried out. Nonetheless, our Human Resources spent time to explain to the complainant how his perception was misconstrued. Given that the complainant did not revisit the issue since, the issue was decidedly closed.

<sup>29</sup> Rest of the world includes Norway, USA, Malaysia, Poland, France and United Kingdom.

# OPERATING A RESPONSIBLE BUSINESS

## OUR SUSTAINABILITY GOVERNANCE FRAMEWORK

Sembcorp Marine upholds the highest standards of governance, transparency, accountability and ethics in all aspects of our operations. This is done through our four pillars illustrated below.

### Good Governance & Prudent Decision Making

Good governance and prudent decision-making serve as the foundation of all our operations and business activities to minimise any negative environmental and societal impacts.

With strong commitment from the Board and effective sustainability governance structure, these impacts that are a result of our business activities are managed by the comprehensive and integrated governance system of policies, processes and control measures.

The basis of our governance system towards sustainability impacts will continue to be guided by international sustainability frameworks such as the Sustainability Accounting Standards Board (SASB) and the GRI 2021 Standards.

Due to the good governance around our EESG factors, it has enabled us to secure sustainable finance linked to our sustainability performance. Please refer to below for more information.

### Effective Enterprise Risk Management

To create long-term value to our stakeholders, Sembcorp Marine has in place a robust Enterprise Risk Management (ERM) framework. The framework serves as a guide for Management to manage the uncertainties and associated risks in pursuing business opportunities and identify and explore unique opportunities.

As our business spans across multiple countries, we identify and assess climate-related and corruption risks in our operations and implement comprehensive procedures to manage business processes. This includes engaging stakeholders such as suppliers, contractors, and intermediaries and agents who act as representatives of Sembcorp Marine for which such risks are assessed to be high.

Please refer to pages 78 to 79 of our FY2022 Annual Report for our ERM framework.

## Sustainability-Linked Finance Framework

Sembcorp Marine Sustainability-Linked Finance Framework was established in 2021, which enabled us to secure two sustainability-linked loan facilities. The first loan was secured with DBS Bank in February 2021, followed by September 2021 with another regional bank.

The ESG targets in these facilities are aligned with Sembcorp Marine's performance targets set out in the Group's Sustainability Report on pages 6 and 7. Sembcorp Marine will provide annual updates on our performance in our annual sustainability reports. The progress against these targets is monitored by our Environmental Sustainability Working Group and Sustainability Council, with oversight from our Board of Directors.



Scan for more information about the sustainability-linked loan

## Regulatory Compliance

With the ever-changing regulatory landscape, it is imperative that local and cross-border laws, rules and regulations are complied with both Sembcorp Marine and those in business with us.

All our employees, vendors and suppliers are required to adhere to the Group's internal policies and procedures, and applicable standards of conduct. Our policies are regularly reviewed and enhanced, and we perform compliance assurance activities to ensure that we are adhering to all regulatory requirements.

Our tax policies focus on compliance and transparency. Please refer to page 162 of our FY2022 Annual Report for more information on Sembcorp Marine's tax expenses.

The company's operations and supply chain are not considered to have significant risks of child, forced or compulsory labour in 2022\* (2021: nil).

## Business Integrity

Business integrity plays an important role in upholding our reputation and safeguards our assets and long-term interests of our stakeholders.

Under the United Nations Global Compact, we adhere to the Anti-Corruption Principle and do not tolerate fraud, bribery and corruption in our business dealings and operations.

As part of our ISO 37001-certified Anti-bribery Management System, the Board oversees and approves our Code of Business Conduct and Anti-bribery & Anti-corruption Policies, regularly reviewing their effectiveness. Our Code of Business Conduct and Anti-bribery & Anti-corruption Policies sets out the Group's core values and expectations regarding business ethics. All employees are expected to uphold business integrity throughout their tenure.

## The Norwegian Transparency Act

### About the Act

The Norwegian Transparency Act has become effective on 1 July 2022.

The new Act on social sustainability is based on UNGP and OECD guidelines.

Larger enterprises and foreign companies that are tax liable to Norway are obligated to comply with new duties related to human rights in their supply chain.

Sembcorp Marine has always advocated respect for fundamental human rights and decent working conditions. With effect of the Norwegian Transparency Act, our offices in Norway:

- has reviewed its current ESG / Human Rights / Suppliers code of conduct to ensure full compliance to the new Act;
- will communicate the Supplier code of conduct to its existing and new vendors/subcontractors;
- will communicate its assessment externally by publishing reports signed off by the Norwegian board as mandated by the Act;
- will continue to conduct regular assessment on areas which may have adverse impact to human rights and manage such impact with a structured system.

The Group will continue to align and enhance its practices to be fully compliant with all laws, regulations, codes of practice, and regulatory requirements applicable in jurisdictions where we operate.

# BUILDING A BETTER WORLD FOR ALL



As a champion of the human capital working group, I am happy to see more role models emerging through our commitment and practices in Sembcorp Marine.

**Mr Yee Loke Yeen**  
Champion of the Human Capital Working Group



I believe in empowering the next generation of Eco Champions. Initiating and leading community programmes for Sembcorp Marine is a great way for me to give back to society.

**Ms Koh Guat Siew**  
Champion of the Community Engagement Working Group

Through cutting edge technology and collaborative partnership, we can jointly contribute and advance the sustainable development of the offshore, marine and energy sector.

**Dr Ang Joo Hock**  
Member of the Innovation & Sustainable Solutions Working Group



I am pleased that we have evolved the cylindrical hull concepts for the green and renewable energy markets, contributing to the decarbonisation of the industry.

**Mr Otto Skjåstad**  
Head of Engineering & Technology, Sevan SSP



Every year, I am thrilled to see the growth in Sustainability plans and outcomes in our reporting. The dedication for the effort comes at so many levels, it is indeed heart-warming!

**Ms Serene Lam**  
Manager, IR&CC





**My team and I are passionate about our green footprint. I am elated that we reduced our GHG emissions (Scope 1 & 2) by 24.7% reduction in 2022!**

**Mr Lim Eng Seng**  
Member of the Environmental Sustainability Working Group



**I am a Sustainability Coordinator at EJA with a certification in GRI reporting. I am excited to be part of the Sembmarine Environmental Sustainability working group; Our Eco champions!**

**Ms Aparecida Demoner Ramos**  
Member of the Environmental Sustainability Working Group

**Blue skies and clean oceans  
Lush greens and alpine fresh air  
Thriving communities, homes teeming with life**



**Integrating sustainability and digitalisation into our supply chain management processes are part of our future-ready strategy to mitigate disruptions, ensure business continuity and maintain our competitiveness.**

**Mr Royce Lim**  
Champion of the Supply Chain Working Group

**We desire and we envision  
A healthy world, a liveable space  
For you and me, and generations to come**

**Let's act now and protect the Earth  
Together, every little green effort counts  
Surely, we can make our shared vision - a reality**



**High standards of governance are essential in sustaining the Group's businesses and performance. We are committed to a proactive risk management culture, high standards of governance, ethics, transparency, accountability and regulatory compliance.**

**Mr Tan Cheng Tat**  
Council Member of the Corporate Governance Working Group



**I am happy working with a great team and to be part of the Company's sustainability journey.**

**Ms Sharon Kem**  
Member of the Corporate Governance Working Group



**SEMBCORP MARINE LTD**

Co. Reg. No. 196300098Z

80 Tuas South Boulevard, Singapore 637051

Tel: +65 6265 1766

[www.sembmarine.com](http://www.sembmarine.com)

