

# PROTECTING OUR PEOPLE

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

## Sembcorp Marine HSE Strategic Thrusts<sup>12</sup>



## Principles of our Vision Zero Commitment<sup>12</sup>



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

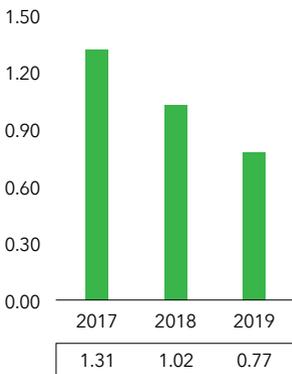
Safe and healthy working conditions have a positive impact on the motivation of employees, the quality of our work and commercial solutions, our reputation, as well as the satisfaction levels of customers and other important stakeholders. All these factors in turn affect Sembcorp Marine's economic success.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

	Our Commitment	Our Efforts in 2019
<b>Deepen WSH Ownership</b>	<ul style="list-style-type: none"> <li>• Protect labour rights and promote safe working environments for all workers, through continuous enhancement of HSE competencies and capabilities</li> <li>• Develop effective, accountable and transparent institutions at all levels by cultivating positive WSH Culture and emphasising WSH ownership</li> </ul>	<ul style="list-style-type: none"> <li>• Sembcorp Marine yards in Singapore and Indonesia achieved ISO 45001 Occupational Health and Safety Management System certifications</li> <li>• Received 24 WSH awards from various bodies</li> <li>• Achieved 100% participation rate for safety induction for all yard visitors</li> </ul>
<b>Focus on Workplace Health</b>	<ul style="list-style-type: none"> <li>• Prevent occupational diseases and advocate the importance of good industrial hygiene practices at the workplace to reduce the incidence of ill health</li> </ul>	<ul style="list-style-type: none"> <li>• Recorded a lost time injury rate of 0.77 and Total Recordable Injury rate of 1.52 per million man-hours worked</li> <li>• EJA launched 'Risk Factor' and 'Bosom Friend' programmes to raise WSH competency and culture</li> </ul>
<b>WSH Advancement with Technology</b>	<ul style="list-style-type: none"> <li>• Innovate, adopt and embrace technology for WSH improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Introduced 3D Robotic Welding Un-manned Complex, Hull Treatment Carrier-System Double (HTC-SD) and Drones</li> </ul>

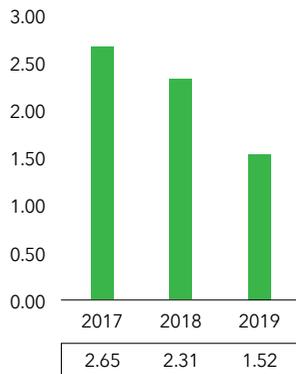
(12) Aligned with the recommendations of WSH 2028 by WSH Council, Singapore

Singapore and Overseas<sup>13</sup>

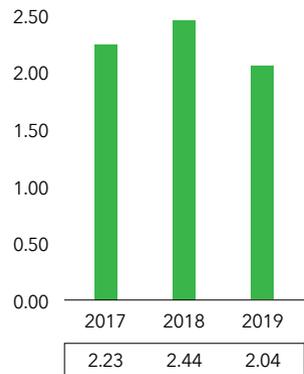
Lost Time Injury Rate per million man-hours worked<sup>14</sup> (LTIR)



Total Recordable Incident Rate per million man-hours worked<sup>14</sup> (TRIR)

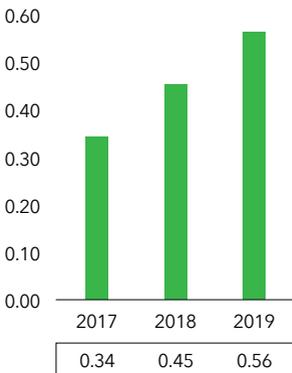


Fatal Accident Rate per 100 million man-hours worked<sup>14</sup> (FAR)

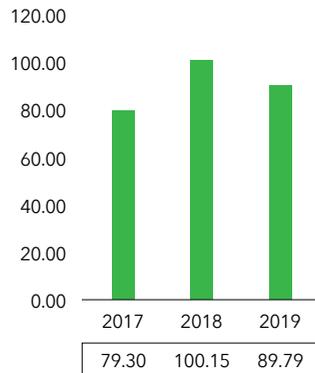


Singapore

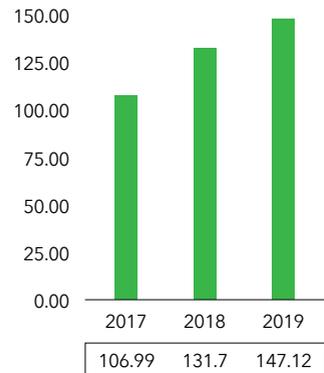
Accident Frequency Rate per million man-hours worked (AFR)



Accident Severity Rate per million man-hours worked (ASR)



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



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

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

(13) Health and safety statistics from overseas operations include yards located in the UK, Brazil, Indonesia and Singapore.

(14) Aligned with International Association of Oil & Gas Producers Standards (IOGP).

# PROTECTING OUR PEOPLE

## DEEPEN WSH OWNERSHIP

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

### WSH Ownership and Accountability

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

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

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

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

### Cultivate Positive WSH Culture

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



## HSE LIFE SAVING RULES

Safety Starts with Me.



## ALWAYS REMEMBER



CARE



Safe Entry into Confined Space



Get Authorisation before Starting Hazardous Work



Isolate, Lock-out and Tag-out Energy Source



Conduct Safe Lifting Operations



Contain, Secure and Prevent Falling Objects



Hook-up and Work Safely at Height



Abide by HSE Signage and Road Safety

### Continuous Enhancement in HSE Competencies and Capabilities

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

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

#### Hazard Prevention and Mitigation

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

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

#### Training and Competency

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

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

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

#### RISK FACTOR



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



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

# PROTECTING OUR PEOPLE

## FOCUS ON WORKPLACE HEALTH

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

### Occupational Health Risk Mitigation

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



#### Proactive Incident Prevention

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

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



#### Create Safe & Supportive Environment

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

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

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



#### Emergency Contingency Plan

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

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

## Resilient Workforce - Employee Health and Wellness Programme

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



#### Workplace Health & Wellness Programme

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

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



#### First Aid Training

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



#### Health Management Centre

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

## WSH ADVANCEMENT WITH TECHNOLOGY

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



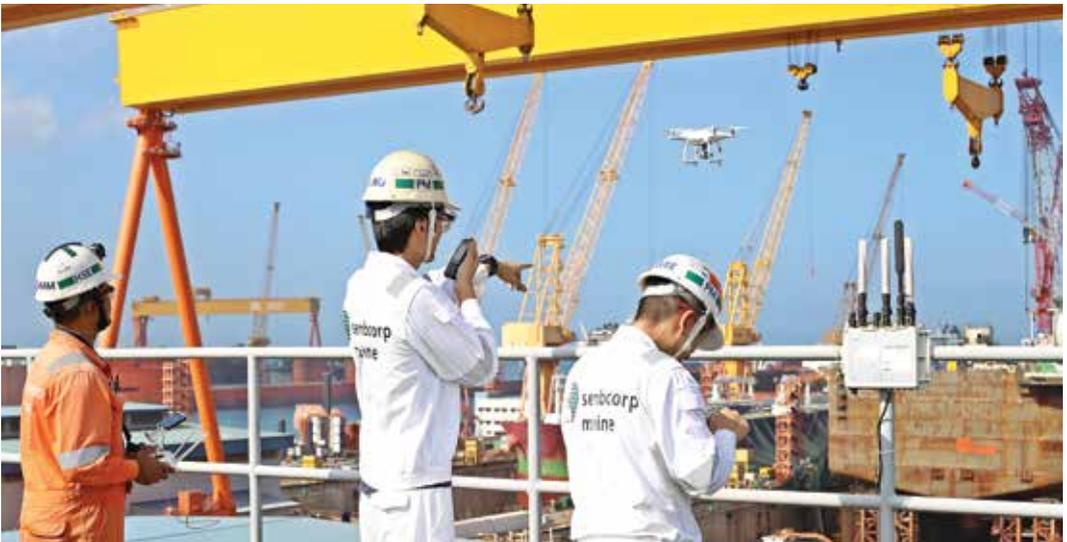
### 3D Robotic Welding Un-manned Complex

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



### Hull Treatment Carrier (HTC) Utilising Robots

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



### Drones for Safety and Quality Inspection

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