

# Future Ready Maritime Workforce

Maritime Singapore is well-equipped with relevant skillsets to enable industry transformation

## Port Equipment Engineer

### Current



Specialised engineers maintaining machinery and systems

### Greater Port Automation and Digitalisation



Autonomous unmanned guided vehicles (AGVs) and truck platooning



Sensors and analytics for enhanced sense-making and predictive maintenance

### Future



Cross-disciplinary engineers to plan and design intelligent, connected systems to manage and maintain both manned & unmanned equipment

## Ship Agent

### Current



Handling of fragmented information systems with manual and tedious paperwork

### Productivity Improvements



Leverage on technologies (e.g. software robotics) to streamline workflow and reduce manual repetitive work

### Future



Multi-skilled to take on higher-value, decision-making tasks

## Seafaring Officer

### Current



Execution of voyage navigation, cargo handling, and ship operations

### Digitalisation and Application of Technologies (e.g. IoT, Analytics)



Smart sensors that feed Big Data to shore for predictive maintenance of vessels



Remote monitoring and diagnostics of global fleet for efficient and safe operations

### Future



Operate smart vessels and interface with future port

## Remote Port Crane Operator

### Current



Manual operation of single crane at any one time

### Greater Port Automation and Digitalisation



Remote yard crane to increase productivity

### Future



Remotely supervise up to 5 cranes in Automated Crane Operations Centre and handle exceptions