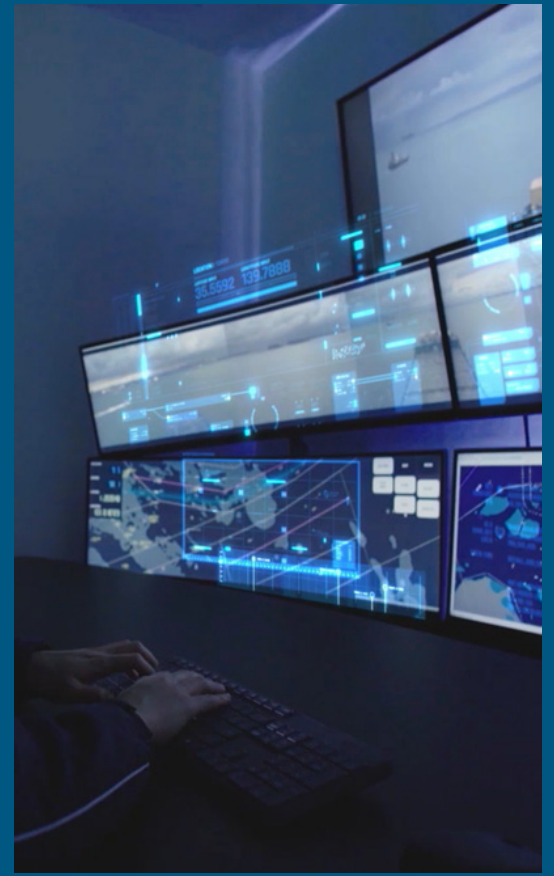


# Charting an Innovative and Sustainable Future for Maritime Singapore



Annual Report  
**2022**

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# Chairman's Message



**Niam Chiang Meng**  
Chairman  
Maritime and  
Port Authority  
of Singapore

The COVID-19 pandemic continued to disrupt supply chains and the economy globally in 2022. Geopolitical tensions and its macroeconomic implications weakened the global economy significantly, seeing global container trade falling by three to four percent last year.

The Port of Singapore has stood strong and resilient amid these challenges. Singapore's container throughput clocked in at 37.3 million twenty-foot equivalent units (TEUs), our second-highest throughput to date. Vessel arrival tonnage hit 2.83 billion Gross Tonnage (GT), with a total of 578.2 million tonnes of cargo handled. The Singapore Registry of Ships reached 96 million GT — an increase of 3.5% from 2021. We have continued to grow and deepen Singapore's role as an international maritime centre, with total business spending by shipping companies exceeding S\$4.3 billion, and over 30 maritime companies establishing or expanding their operations here under MPA-related programmes in 2022.

We are also heartened that maritime decarbonisation is gaining momentum in Singapore — companies such as Ocean Network Express (ONE), Swire Shipping and Swire Bulk opened their sustainability offices in Singapore to drive their respective net-zero emission targets. 2022 also saw Pacific International Lines (PIL) establish its Centre for Maritime Efficiency in Singapore, with a focus on reducing greenhouse gas emissions through fleet optimisation.

Under the PIER71™ programme, we have grown our maritime start-up pool from 17 in 2018 to over 100 as of 2022. These start-ups have raised over S\$50 million in investments, with four already expanding their solutions overseas. We will continue to work with our partners, and are on track to reach our target of 150 maritime start-ups in Singapore by 2025.

Emerging stronger from COVID-19 would not be possible without close working relations with our unions and industry partners. Together, we were able to tackle the pandemic to hold the port sector steady, even while port operations in other parts of the world were impacted severely by long delays and congestion, and kept Singapore conducive and attractive as a place for shipping businesses.

In 2022, Singapore was awarded the "Best Global Seaport" Award at the 2022 Asia Freight, Logistics and Supply Chain Awards for the second time. We were also named "Best Seaport" in Asia for the 34<sup>th</sup> time. Singapore was also recognised as the top international maritime city in the Xinhua-Baltic International Shipping Centre Development Index and Menon Economic-DNV's Leading Maritime Cities of the World report. We receive these accolades on behalf of our partners from the industry and unions. It was with these partnerships, built on trust and unity of mission, that we have kept Maritime Singapore strong and resilient despite the odds.

In September 2022, Prime Minister Lee Hsien Loong officially launched the Tuas Port, marking a significant milestone for Maritime Singapore. Added to this achievement, we were also recognised for our engineering efforts and innovations for Tuas Port Phase One, winning the prestigious World Federation of Engineering Organisation's HJ Sabbagh Prize for Engineering Construction, ASEAN Outstanding Engineering Achievement Award by the ASEAN Federation of Engineering Organisations, the Prestigious Engineering Achievement Award by the Institution of Engineers Singapore and the Project of the Year Award at the Project Management Institute Singapore's 8th Project of the Year 2022 Awards. These awards are testament to the resilience of our people and partners in ensuring that the job gets done despite the challenge of COVID-19.

Looking ahead, we will continue our efforts to achieve net-zero emissions by 2050. As announced at the 2023 Committee of Supply Debate, we have set the target for new harbour craft to go fully electric, be capable of using B100 biofuels, or be compatible with net-zero fuels by 2030. The initial number of companies that have stepped up to participate in the electrification of their harbour craft fleet is encouraging. We recognise that this is a long-term endeavour, and we will continue to provide the support that the industry needs — from building infrastructure to engaging the financiers.

We are also actively contributing to the sustainability discourse in international shipping. Our officer Tan Hanqiang was appointed as Vice-Chair of the International Maritime Organization's Marine Environment Protection Committee in December 2022. This is a clear affirmation of our commitment and thought leadership at the global level, in protecting the marine environment from ship-source pollution.

Looking ahead, we can expect headwinds brought on by continued geopolitical tensions and economic uncertainty caused by supply chain disruptions and rising inflation. That said, I am confident that with close partnerships with industry and unions, the spirit of innovation and collaborations with like-minded partners across the globe, we will propel Maritime Singapore forward, ready to face any challenge together.

# Chief Executive's Message



**Teo Eng Dih**  
Chief Executive  
Maritime and  
Port Authority  
of Singapore

MPA and Maritime Singapore passed several milestones in 2022. We commemorated 50 years of Singapore's container shipping journey and the 40th anniversary of the adoption of the United Nations Convention of the Law of the Sea (UNCLOS).

Oceans and the freedom of navigation are critical to island states like us — our seas and the Straits of Malacca and Singapore are vital conduits and arteries of trade, commerce and culture. When the Constitution of the Oceans reached the 40-year milestone, we were reminded by the growth of our trade. Singapore welcomed the arrival of the first 300 containers onboard the MV Nihon at Tanjong Pagar terminal in 1972, while in 2022, our container volume reached 37.3 million TEUs.

In 2022, we also saw challenges such as the COVID-19 pandemic disrupting global supply chains. While we continue to navigate through increasingly trying circumstances, the reality is that the maritime sector is inherently international. Our operating environment rarely stays stagnant or away from the influence of market forces.

## The Value of Maritime

Our focus has always been on connecting to ports and hubs worldwide and offering companies compelling value for them to do business in Maritime Singapore. These have guided our decision-making approach and have consistently reflected our enthusiasm and an eagerness to adapt and be nimble. By many measures, Maritime Singapore closed 2022 with good momentum for future growth:

- Maritime businesses contributed more than S\$4.3 billion in total spending;
- Over 30 maritime companies established or expanded their operations under MPA-related programmes;
- The number of start-ups under PIER71™ programme grew from 17 in 2018 to close to 100; and
- The Singapore Registry of Ships reached 96 million GT — an increase of 3.5% from 2021.

The list goes on. It has taken generations of officers and seafarers, past and present, to get to where we are today.

At the same time, we are cognisant that the maritime industry is transforming with the emergence of automation, digital twins and new green fuels. We must double our efforts to bring Maritime Singapore to the next level.

For instance, we have progressively updated our marine biofuel specifications from B7 (or 7% blend) to B50 (or 50% blend). When we help to raise the acceptance of biofuel blends, the greater the likelihood of uptake by industry and market forces. 2022 saw a total of 140,000 tonnes of biofuel bunkered in Singapore, surpassing the 16,000 tonnes in liquefied natural gas bunker sales. The trials for biofuel blends of up to 100% will be carried out in the near future and expected to be completed by 2025.

The same philosophy applies on the value we create through the multi-domain capabilities in our waters. This will require us to deliver solutions such as using optical imagery and network, amplifying maritime drone and air services, bunker low to net-zero carbon marine fuels, and performing remote subsea inspections.

In these instances, MPA will put in place a facilitative regulatory framework to promote safe operations and R&D activities in our waters. MPA and Maritime Singapore will continue to build on our collective strengths.

## Addressing Decarbonisation and Digitalisation

Decarbonisation underscores the inextricable links to economic growth and opportunities; managing climate risk is managing the investment risk.

On the domestic front, Singapore has pledged to achieve net-zero emissions by 2050 and for the public sector by 2045. This commitment will apply to harbour craft, pleasure craft and tugboats plying along port waters, and our port and cruise terminal operators. At the international level, 2023 will be an important year as the International Maritime Organization (IMO) will consider enhancements to the current target of 50 percent emission reduction from 2008 levels by 2050.

Our work to prepare for new fuels is progressing well. We are collaborating with CMA CGM to explore the use of biofuels and will conduct the first methanol bunkering operations with Maersk Oil Trading, Mitsui & Co, and the American Bureau of Shipping (ABS) in 2023. We jointly issued an Expression of Interest with the Energy Market Authority inviting partners to propose end-to-end solutions to introduce ammonia as a marine bunker and for power generation, signed a Memorandum of Understanding (MoU) with the SABRE consortium to establish development works for ammonia bunkering, and another with Hyundai Heavy Industries, ABS and Eastern Pacific Shipping to construct an ammonia

# Chief Executive's Message

dual-fuel gas carrier to be registered under the Singapore flag. We welcome more of such green vessels to be registered under the Singapore flag.

At the end of 2022, MPA agreed to work with Port of Los Angeles and Port of Long Beach on a green and digital shipping corridor after a similar agreement was signed with Port of Rotterdam. Likewise, our efforts to decarbonise the domestic harbour craft are also underway. We have set the target for new harbour craft to go fully electric, be capable of using B100 biofuels, or be compatible with net-zero fuels by 2030. The initial number of companies that have stepped up to participate in the electrification of their harbour craft fleet has been encouraging.

How effectively we harness digitalisation in our transition towards a net-zero economy will also impact our long-term value. The live trials for digitalPORT@SG™ Just-In-Time (JIT) services onboarded some 27 companies to the JIT Planning and Coordination Platform, with the aim to optimise vessel arrivals and departures, enable faster turnaround times, and reduce dwell times and emissions at the port and anchorages. MPA is also on track to roll out the 5G maritime network in our port waters. We anticipate that the network will accelerate new MarineTech developments, such as remote assisted pilotage advisory and maritime autonomous surface ships. In 2022, we have already made our first strides in this area through the Proof-of-Concept use cases with Inmarsat's Orchestra satellite network.

## Our People and our Workforce

We are also committed to build a capable workforce. We formed the Alliance for Future Maritime Talent (AFMT) in 2022 with the Singapore Maritime Foundation, Pacific Carriers Limited, Pacific International Lines, and ABS and established the Tripartite Advisory Panel (TAP) to identify emerging skills.

Seafarers and crews can upgrade their seafaring skills and knowledge with the Sail Milestone Achievement Programme (SailMAP) to prepare themselves to handle new vessels and equipment powered by new marine fuels. The Maritime Testbed of Shipboard Operational Technology (MariOT) system developed by Singapore Maritime Institute, iTrust, the Centre for Research in Cyber Security at the Singapore University of Technology and Design and MPA, is another initiative to train maritime professionals and cadets through cyber exercises and drills.

At MPA, we take ownership to ensure that going green and digital pervades every process and decision. Daily actions

matter. It can be streamlining the number of trips we have out at sea to reduce fuel consumption, implementing smart monitoring systems to reduce energy consumption in our buildings or observing Earth Hour by switching off non-essential lights.

We have organised ourselves into teams to support decarbonisation and digitalisation — from engineers, cyber specialists and mariners to account managers, communications and corporate staff — to enhance Maritime Singapore with their core capabilities.

## Towards 2023 and Beyond

Since the start of the pandemic, the Port of Singapore remained committed to be open. MPA played a major role in enabling business continuity but what made it possible for us was the strong tripartism with the unions and industry. We were able to work nimbly together on policies and measures to adjust to the needs of global supply chains while keeping our ship and port workers safe. Similarly, we must continue to lean on this partnership to bring to fruition our green and digital projects and collective aspirations for the maritime workforce.

We are still in the early stages of bringing new value to the maritime ecosystem through the multi-domain capabilities in the air, on water and underwater. We will continue to build mindshare across academia and industry. This can be working alongside classification societies to harmonise standards, prepare training curricula for sea crew, or to invite partners to testbed new technologies and services. For example, we are planning to coalesce around sector-wide mechanisms to measure cybersecurity risks and draw up responses at the Maritime Cyber and Assurance Operations Centre. We stand ready to share with the maritime community on what we have learnt.

To our colleagues, partners, unions and friends, thank you for welcoming me to MPA and the Maritime Singapore family. 2022 was indeed a fulfilling and exciting year. There is much potential in embracing opportunities arising from decarbonisation and digitalisation. I am optimistic that we will emerge from these challenging macroeconomic conditions in a stronger position.

We at MPA are grateful for your support and partnership in our aspiration to be a global hub port and international maritime centre. It is both encouraging and rewarding. I strongly believe that our best days are ahead of us, and I look forward to working along with you.



**“MPA played a major role in enabling business continuity but what made it possible for us was the strong tripartism with the unions and industry. We were able to work nimbly together on policies and measures to adjust to the needs of global supply chains while keeping our ship and port workers safe.”**

# Board of Directors

as of 31 December 2022

- **Mr Niam Chiang Meng**

Chairman  
Maritime and Port Authority of Singapore



- **Mr Teo Eng Dih**  
Chief Executive (wef 5 Sep 2022)  
Maritime and Port Authority of Singapore



- **Ms Quah Ley Hoon**  
Chief Executive (until 5 Sep 2022)  
Maritime and Port Authority of Singapore



- **Dr Vincent Lien**  
Director  
Wah Hin &  
Company Pte Ltd



- **Mr Sng Seow Wah**  
Corporate Advisor  
Temasek International



- **Mr Abu Bakar Bin Mohd Nor**  
Group Chairman  
M Kapital Holdings  
Pte Ltd



- **Ms Mary Liew**  
President  
NTUC Central  
Committee and General  
Secretary Singapore  
Maritime Officers' Union



- **Mr Chris Ong Leng Yeow**  
Chief Executive  
Officer & Managing  
Director (Offshore)  
Keppel Offshore & Marine



- **Mr Teo Choo Wee**  
Executive Director,  
Fleet Division  
Pacific International  
Lines Pte Ltd



- **RADM Aaron Beng Yao Cheng**  
Chief of Navy  
Republic of  
Singapore Navy



- **Mr Jermaine Loy**  
Principal Private  
Secretary to  
Prime Minister  
Prime Minister's Office



- **Mr Esben Poulsen**  
Executive Chairman  
Enesel Pte Ltd



- **Ms Caroline Yang**  
Chief Executive  
Hong Lam Marine Pte Ltd



- **Mr Chan Cheow Hoe**  
Deputy Chief Executive  
Agency of Singapore  
and Government Chief  
Digital Technology Officer  
Smart Nation and Digital  
Government Office



- **Mr Kevin Shum**  
Deputy Secretary  
(Strategy, Sustainability  
& Technology)  
Ministry of Transport



- **Ms Patricia Yim**

# Senior Management

as of 31 December 2022

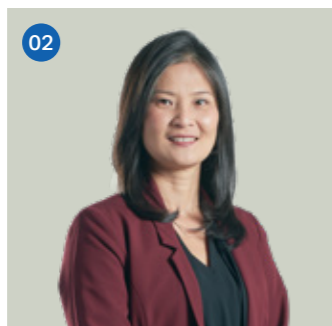
## 01 Mr Teo Eng Dih

Chief Executive  
(wef 5 Sep 2022)



## 02 Ms Quah Ley Hoon

Chief Executive  
(until 5 Sep 2022)



## 03 Mr David Foo

Assistant Chief Executive,  
Operations Technology



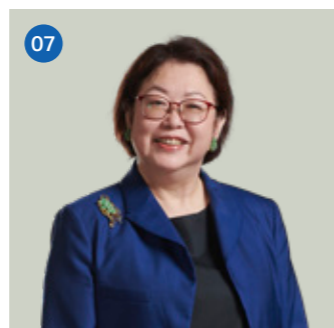
## 04 Mr Kenneth Lim

Assistant Chief Executive,  
Industry and Transformation  
Quality Service Manager



## 05 Captain M Segar

Assistant Chief Executive,  
Operations



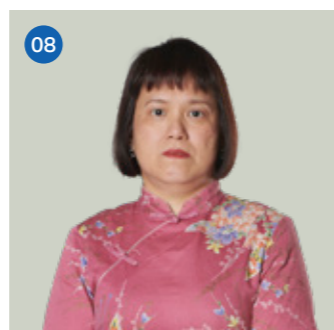
## 06 Mr Tan Hoe Soon

Assistant Chief Executive,  
Corporate and Strategy  
Chief Risk Officer



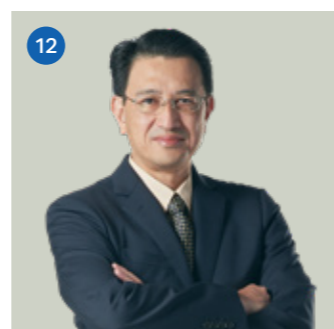
## 07 Ms Tan Beng Tee

Senior Advisor



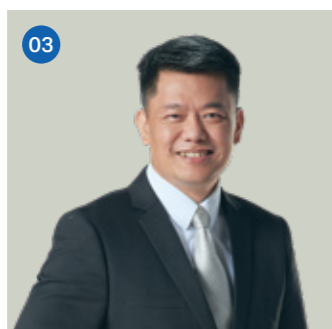
## 08 Ms Angela Png

Senior Legal Advisor  
and Corporate Secretary



## 09 Captain Daknashamoorthy Ganasen

Senior Director,  
Operations & Marine Services



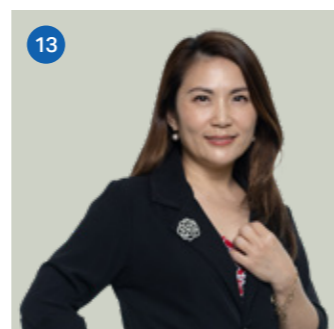
## 10 Er Tham Wai Wah

Chief Engineer  
Chief Sustainability Officer  
Senior Director, Engineering  
& Project Management



## 11 Ms Bernice Yeoh

Senior Director,  
Strategy & Policy  
(until 14 Jun 2022)



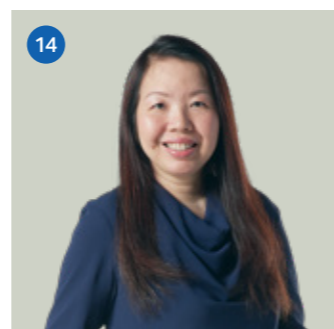
## 12 Mr Cheah Aun Aun

Director, Shipping  
Director, Marine



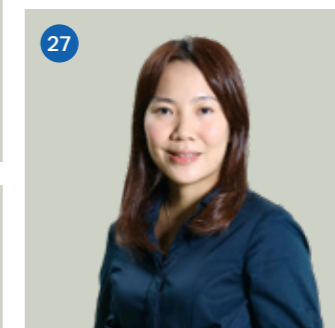
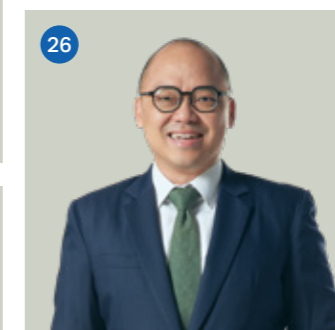
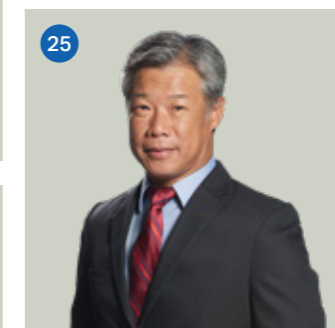
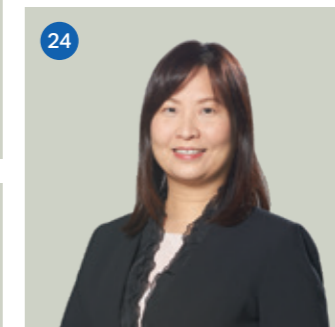
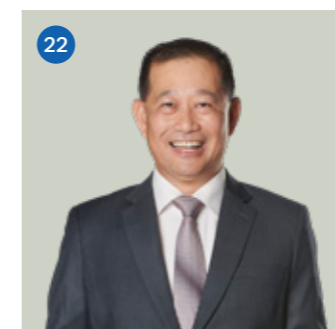
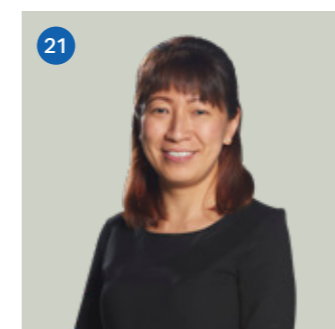
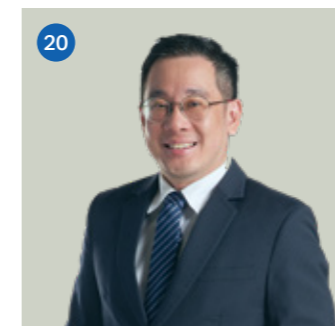
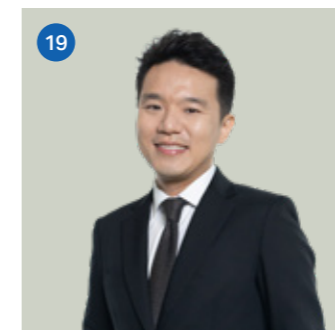
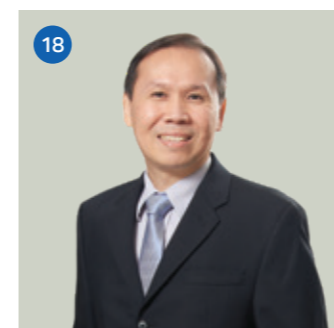
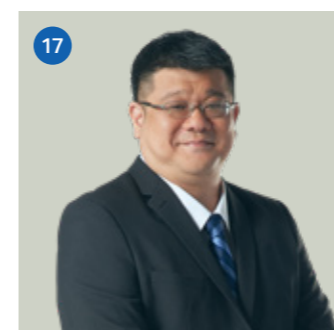
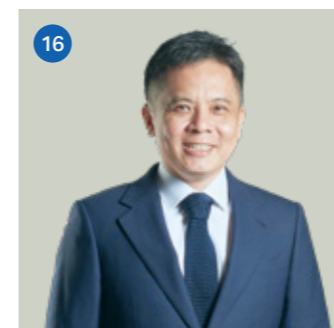
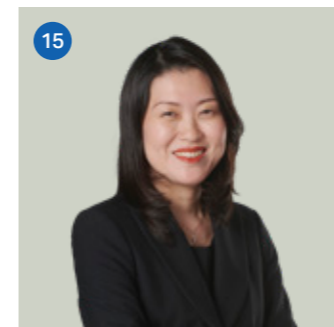
## 13 Ms Dawn Chen

Director, International



## 14 Ms Caitlin Fua

Director, Communications  
& Community  
(until 13 Feb 2022)



## 15 Ms Caroline Goh

Director, Business  
Capability Development

## 16 Mr George Goh

Director, Communications  
& Community

## 17 Mr Dennis Khoo

Director, Port Systems

## 18 Mr Koh Chin Yong

Chief Information  
Officer and Director,  
Information Technology

## 19 Mr Jason Leong

General Counsel

## 20 Mr Ng Yi Han

Director, Innovation,  
Technology &  
Talent Development

## 21 Ms Cindy Sim

Director, Finance,  
Procurement  
& Administration

## 22 Mr Tan Suan Jow

Dean, MPA Academy

## 23 Mr Vince Tan

Director,  
Operations Planning

## 24 Ms Tan Woei Tyng

Director, International  
Maritime Centre

## 25 Mr Thai Low Ying-Huang

Chief Hydrographer

## 26 Mr Benjamin Wong

Director, Strategy & Policy

## 27 Ms Yeo Suat Lay

Director, Human Resource

# Corporate Governance

## Organisation and Structure

MPA is a statutory board under the Ministry of Transport, which oversees all the statutory bodies in the transport sector. It was established and incorporated under the Maritime and Port Authority of Singapore Act. The Board, headed by a non-executive Chairman, sets strategic directions for MPA to achieve its mission and fulfil its roles as laid out in the Act. Appointed by the Minister for Transport for a three-year term, Board Members include MPA's Chief Executive, senior officials from the public sector and industry representatives.

The MPA Board comprises the following Board Committees:

- Audit Review Committee
- Data and Cybersecurity Committee
- Investment Committee
- MINT Fund Steering Committee
- Registration Committee
- Senior Personnel Board
- Welfare Committee for Seafarers

Board Meetings are held on a bi-monthly basis to deliberate and approve important matters on governance, operations, policy and sustainability. These matters reflect the key material issues addressed in this report.

MPA's 18 divisions are headed by Directors or Senior Directors, who are responsible for managing the day-to-day operations of their divisions.

The Sustainability Office, which reports directly to MPA's Chief Executive, champions sound governance and practices in resource management and environmental sustainability within MPA and the maritime community. It tracks MPA's sustainability performance and provides regular updates to the Board on the progress of sustainability initiatives. In addition to managing and coordinating MPA's programmes on maritime sustainability, the Sustainability Office promotes awareness and champions collaborations amongst maritime stakeholders on sustainability issues.

## Disclosure of Compensation

The remunerations for the chairperson, members of the Board and the Senior Management are pegged to the guidelines of the Public Service Division.

### Board Committee and its Members



#### Investment Committee

##### Chairman

Mr Niam Chiang Meng

##### Members

Mr Teo Eng Dih  
Dr Vincent Lien  
Mr Chris Ong  
Mr Sng Seow Wah  
Mr Abu Bakar

##### Secretary

Director (Finance, Procurement & Admin)



#### Senior Personnel Board

##### Chairman

Mr Niam Chiang Meng

##### Members

Mr Teo Eng Dih  
Mr Abu Bakar  
Ms Patricia Yim

##### Secretary

Director (Human Resource)



#### Welfare Committee for Seafarers

##### Chairman

Ms Mary Liew

##### Members

Mr Esben Poulsson  
Mr Teo Choo Wee

##### SSA

Mr Deepak Arora  
Deputy General Manager  
Maritime Human Resources  
NYK Shipmanagement Pte Ltd

##### PSA Corporation

Mr Goh Teck Chin  
Assistant Vice President  
(Safety and Health)  
PSA SG HSSE Division

##### Jurong Port Pte Ltd

Mr Woo Chee Seng  
Head, Workplace Safety  
and Health and Security

##### Seafarers' Missions

Mr Toh Soon Kok  
Port Chaplain  
Mission to Seafarers  
Singapore

##### Rev Carl Bjarkam

Port Chaplain  
Danish Seamen Church

##### MPA

Senior Director  
(Engineering &  
Project Management)  
Director (Shipping)

##### Secretary

Deputy Director  
(Seafarer  
Management)



#### Registration Committee

##### Chairman

Mr Teo Choo Wee

##### Members

Ms Caroline Yang  
Ms Mary Liew  
Mr Jermaine Loy

##### Secretary

Director (Shipping)



#### Audit Review Committee

##### Chairman

Dr Vincent Lien

##### Members

RADM Aaron Beng  
Ms Caroline Yang  
Mr Sng Seow Wah  
Mr Jermaine Loy

##### Secretary

Head (Internal Audit)



#### MINT Fund Steering Committee

##### Chairman

Prof Lui Pao Chuen  
Advisor  
National Research  
Foundation

##### Members

Mr Teo Eng Dih  
Mr Esben Poulsson  
RADM Aaron Beng  
Ms Patricia Yim

##### Industry representative

Prof Lui Pao Chuen  
Advisor  
National Research  
Foundation

##### Secretary

Director (Innovation,  
Technology and Talent  
Development)



#### Data and Cybersecurity Committee

##### Chairman

Mr Niam Chiang Meng

##### Members

Mr Teo Eng Dih  
Mr Chan Cheow Hoe  
Mr Chris Ong  
Mr Teo Choo Wee

##### IMDA

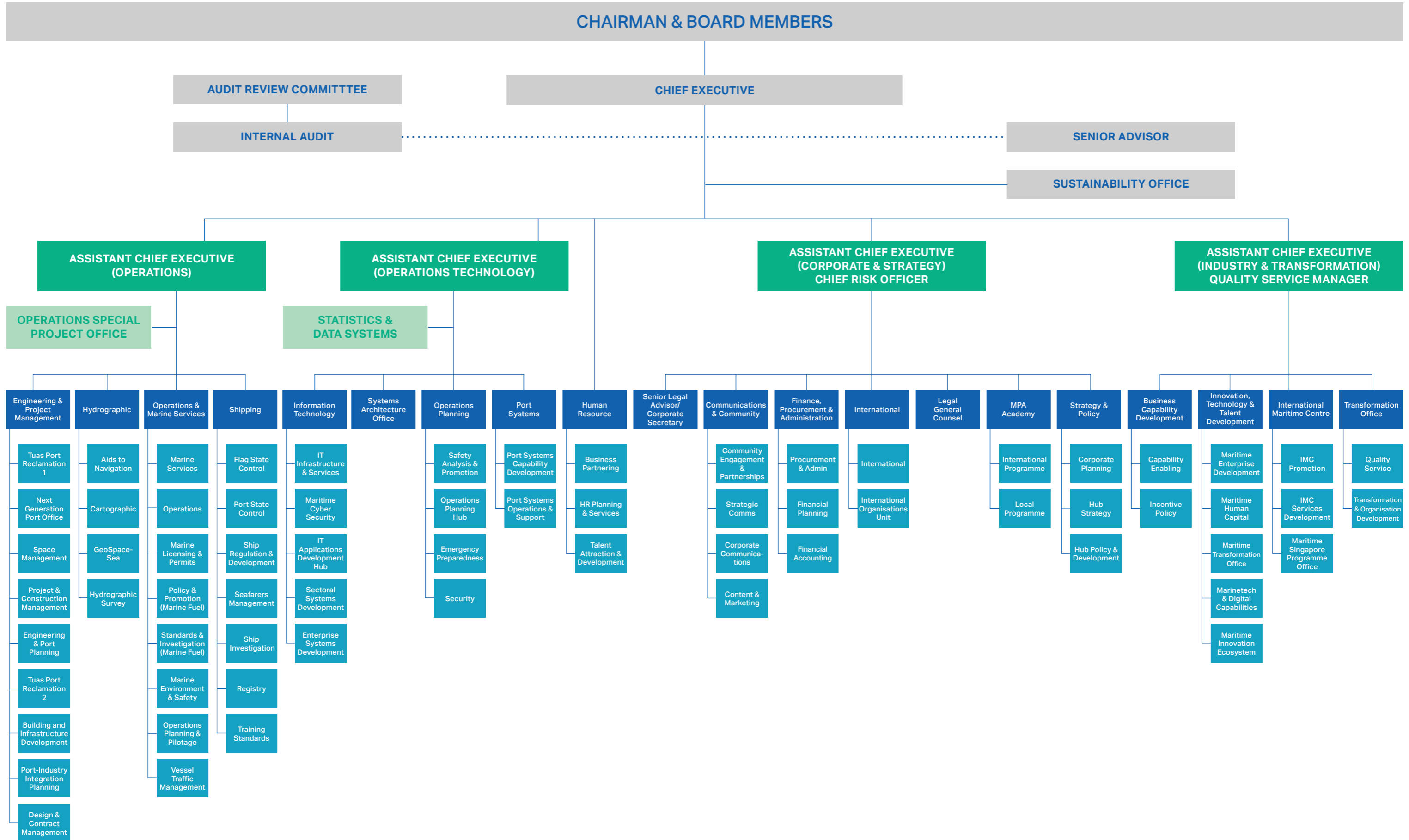
Ms Aileen Chia

##### Secretary

Chief Information  
Officer

# Organisational Chart

as of 31 December 2022





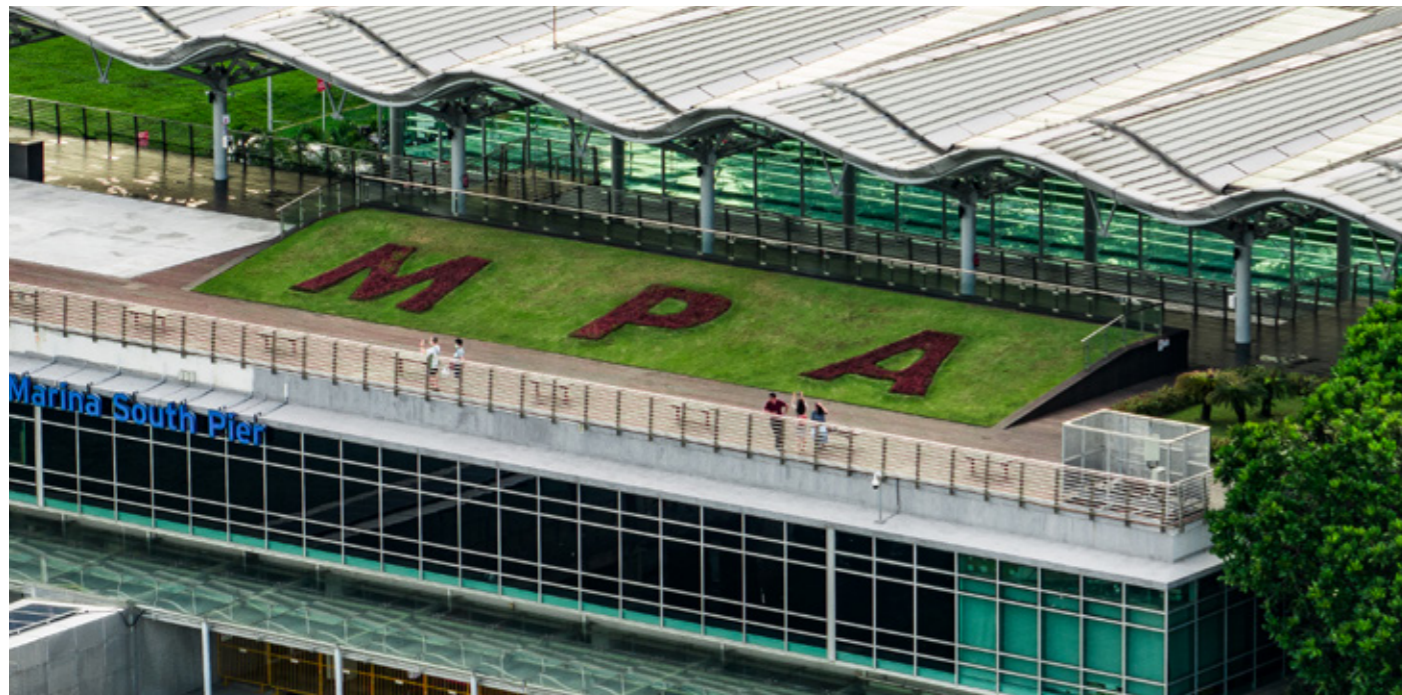
## About MPA

**MPA was established on 2 February 1996 with the mission to develop Singapore as a premier global hub port and international maritime centre, and advance and safeguard Singapore's strategic maritime interests.**

MPA is the driving force behind Singapore's port and maritime development, taking on the roles of port authority, maritime and port regulator and planner, international maritime centre champion, national maritime representative, and champion of digitalisation and decarbonisation efforts at regional and international fora such as at the International Maritime Organization.

MPA partners the industry, research community and other agencies to enhance safety, security and environmental protection in our waters, facilitate maritime and port operations and growth, expand the cluster of maritime ancillary services, as well as develop maritime digitalisation and decarbonisation policies and plans, R&D and manpower development.

MPA is responsible for the overall development and growth of the maritime domain and Port of Singapore. In 2022, Singapore remained one of the world's busiest transshipment hubs, with a container throughput of 37.3 million 20-foot equivalent units (TEUs).



## About Maritime Singapore



The Maritime Singapore logo is a symbolic representation of the local maritime ecosystem and an identity that unifies Singapore's maritime industry. It embodies the vital, versatile and resilient character of Maritime Singapore.

The Port of Singapore is a key transport node in the global supply chain and a vital gateway for essential supplies. Singapore is well-connected to 600 ports in over 120 countries.

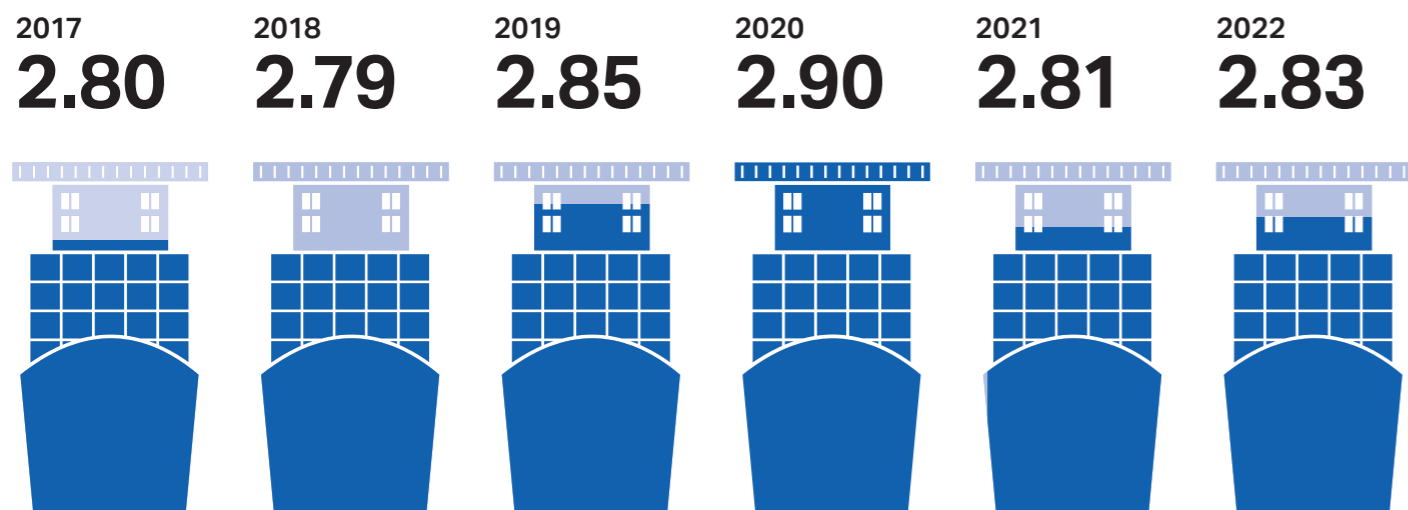
In 2022, Singapore remained the top shipping hub for the ninth year running in the Xinhua-Baltic International Shipping Centre Development Index. It retained its position as the top maritime city in Menon Economics-DNV's 2022 Leading Maritime Cities of the World Report.

Singapore was crowned the 'Best Global Seaport' for the second consecutive time and 'Best Seaport in Asia' for the 34<sup>th</sup> time at the 2022 Asian Freight, Logistics and Supply Chain Awards.

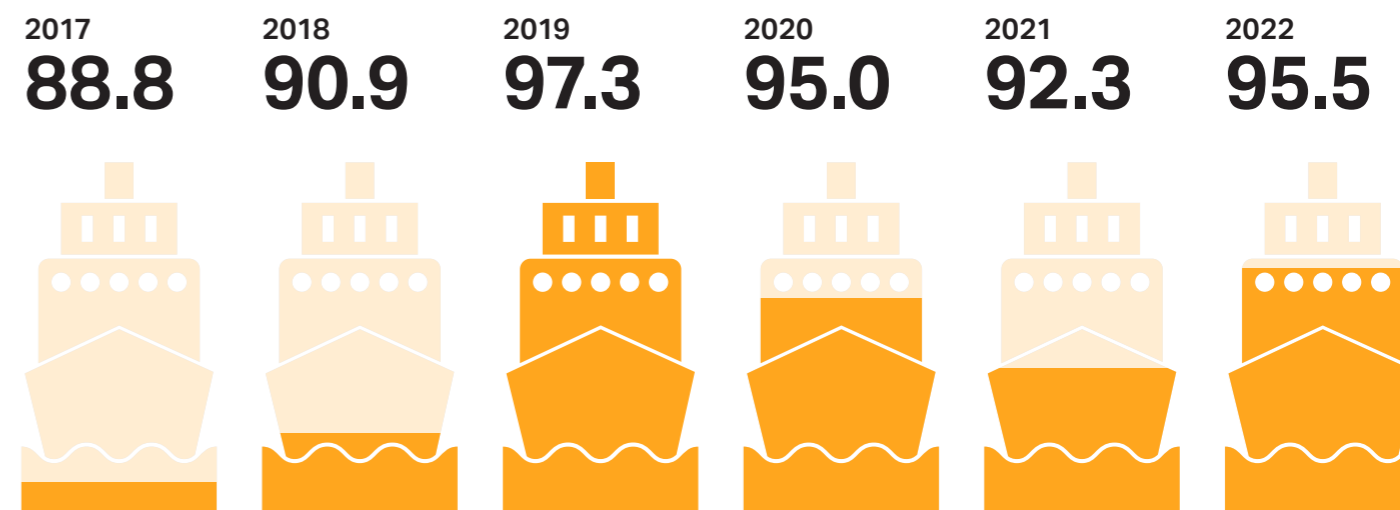
Today, the Singapore Registry of Ships is among the top 5 largest ship registries in the world, with over 4,000 vessels Singapore-registered vessels.

# 2022 Performance Summary

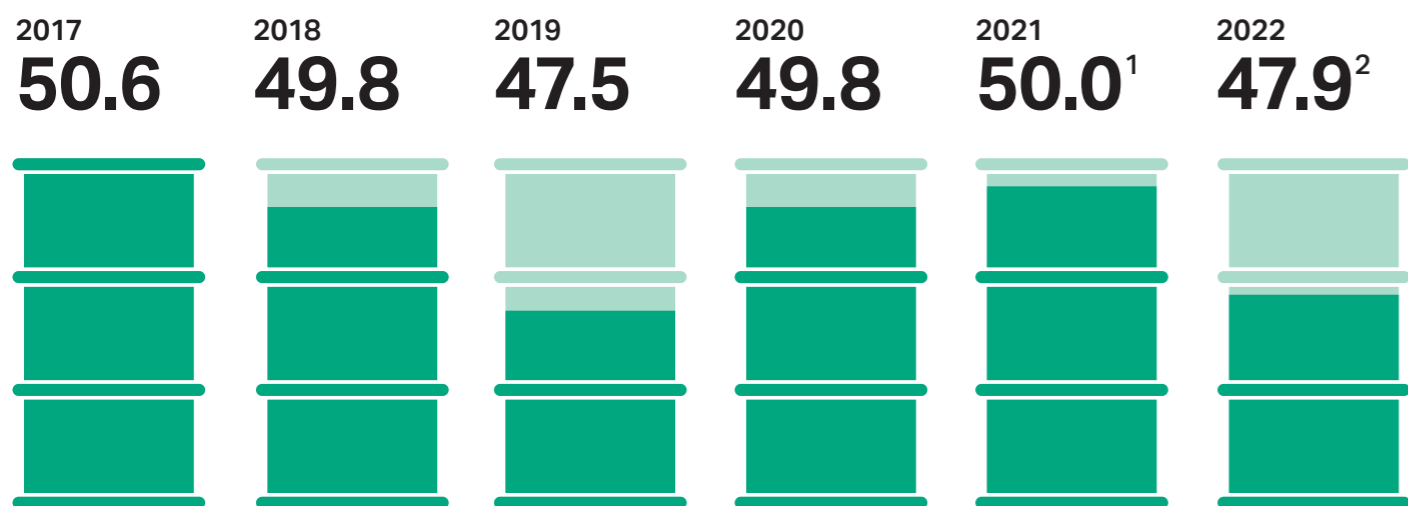
## Vessel Arrival Tonnage (billion GT)



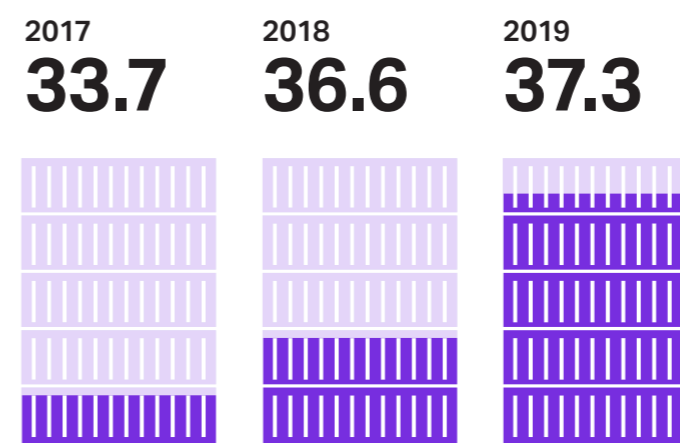
## Singapore Registry of Ships Tonnage (million GT)



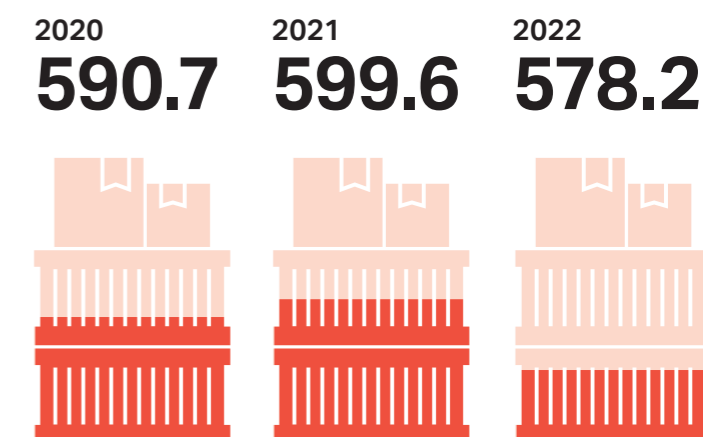
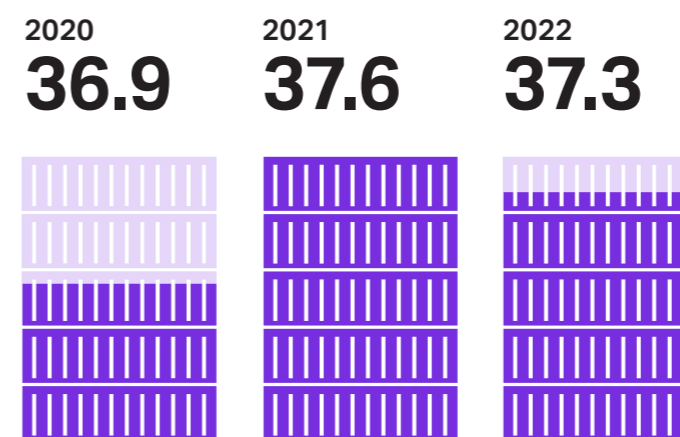
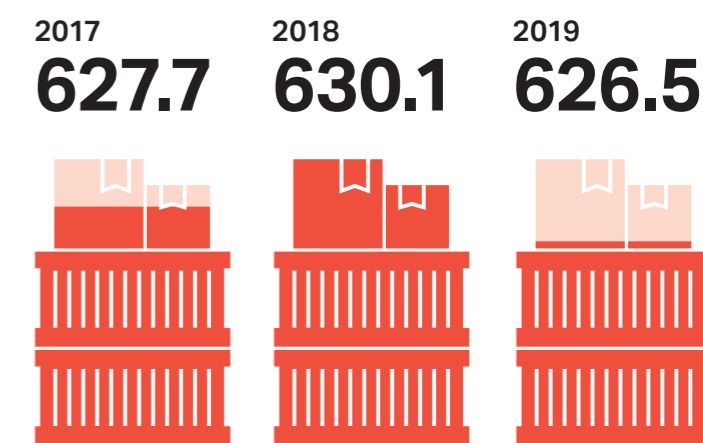
## Bunker Sales Volume (million tonnes)



## Container Throughput (million TEUs)



## Cargo Throughput (million tonnes)

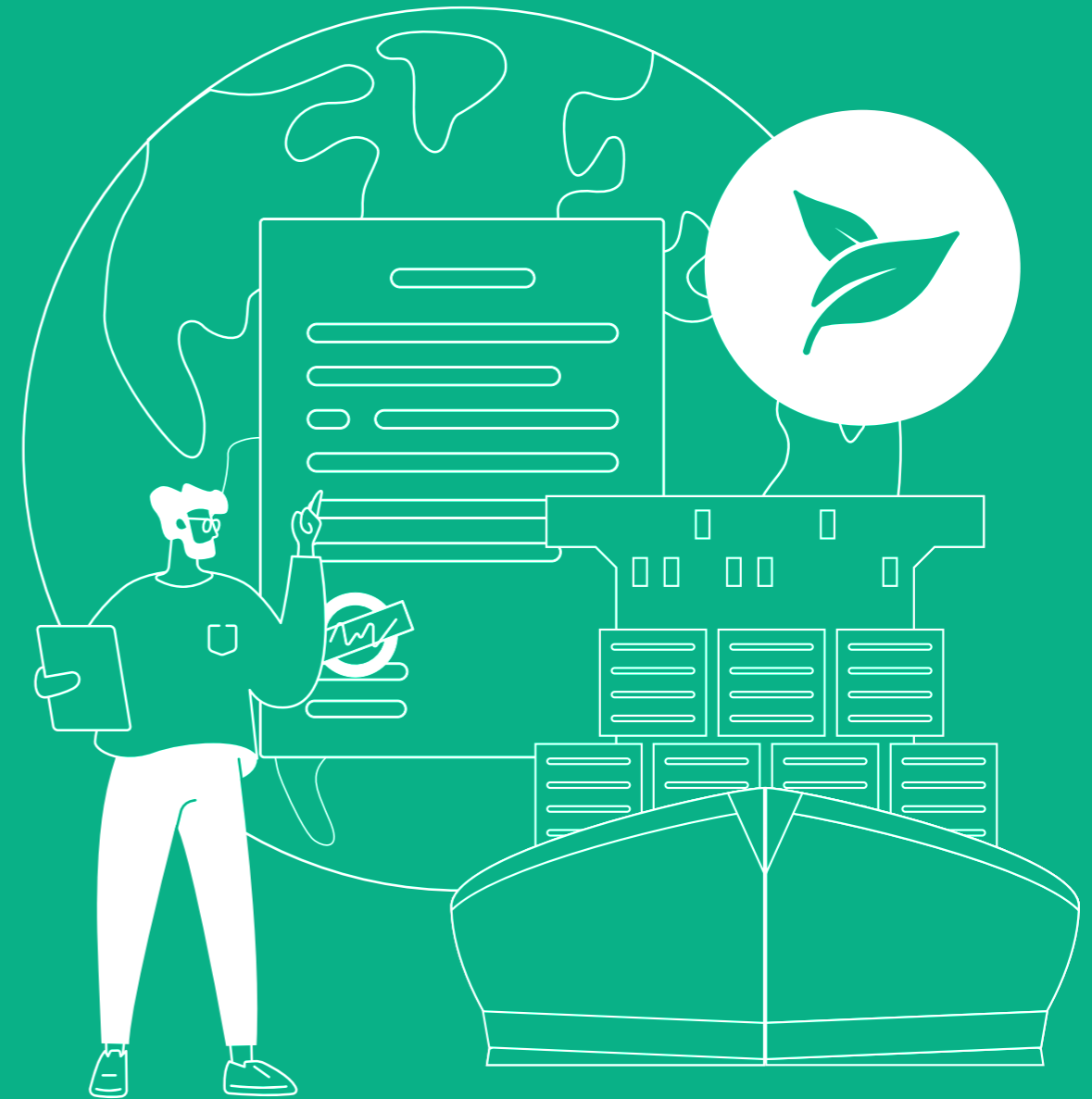


<sup>1</sup> 2021 figures comprise both conventional bunker and LNG bunker.  
<sup>2</sup> 2022 figures comprise conventional bunker, LNG bunker and biofuel bunker.

# 01

- Singapore plays an active role in advancing the international climate change agenda and also contributes to efforts in reducing national domestic emissions under the Paris Agreement.

On the maritime front, MPA is committed to the development of the Port of Singapore as a sustainable global hub port. Guided by Singapore's commitment to achieve net zero emissions by 2050 and the targets of the International Maritime Organization (IMO), we take active steps to work with partners for a zero carbon future, promote clean and green international shipping, and set standards for a multi-fuel future.



## BUILDING A SUSTAINABLE FUTURE

# Building a Sustainable Future

## Launch of the 2050 Decarbonisation Blueprint

Launched on 9 March 2022, the Maritime Singapore Decarbonisation Blueprint 2050 aims to accelerate maritime decarbonisation in line with Singapore's Nationally Determined Contributions (NDCs) and the IMO's targets for the reduction of greenhouse gas (GHG) emissions from ships.

The Blueprint spans various Maritime Singapore domain areas, including port terminals, harbour craft,

## Establishment of the Maritime International Advisory Panel

In 2022, MPA and the Ministry of Transport (MOT) established the Maritime International Advisory Panel (IAP) to seek global perspectives on key trends shaping the maritime industry and how Maritime Singapore can play a role to enhance the resilience and connectivity of the sector. Chaired by Minister for Transport and Minister-in-charge of Trade Relations, Mr S Iswaran, the Maritime IAP comprises of top global business leaders from the maritime sector and adjacent industries such as consultancy, e-commerce, energy and commodity, finance, logistics and manufacturing, and technology.

## Electrification of the Harbour Craft Sector

To support decarbonisation of the domestic harbour craft fleet, MPA and SMI have jointly awarded R&D grants to consortiums led by Keppel Offshore & Marine and SeaTech International to research, design, build and operate a fully electric harbour craft fleet by 2025. This is in line with MPA's announcement at the 2023 Committee of Supply debates for all new harbour craft to be fully electric, use B100, or be compatible with net-zero fuels such as hydrogen, from 2030.

MPA is also working with research institutes to conduct a study to implement charging infrastructure for electric-powered harbour craft. MPA is also concurrently working with government agencies and industry partners to develop electric charging standards for harbour craft.

bunkering, Singapore Registry of Ships, and research and development (R&D).

MPA will continue to work closely with industry and government stakeholders to review and revise the Blueprint where opportune, in line with our NDCs and to further support the maritime decarbonisation agenda.

The Maritime IAP held its inaugural meetings on 5 and 6 April 2022 during the Singapore Maritime Week. Members had insightful discussions with Deputy Prime Minister and Coordinating Minister for Economic Policies, Mr Heng Swee Keat, and Mr S Iswaran on the future of the global economy, trade and supply chains. The panel also had a deeper discussion with Mr S Iswaran on the critical factors and stakeholder collaborations needed to build connected, resilient and sustainable supply chains.



At the Workshop for Maritime Singapore Decarbonisation, industry stakeholders were briefed on charging infrastructure for electric harbour craft.

## Developing Standards for Biofuels

In 2022, MPA, together with the industry, academia, and Enterprise Singapore's national standardisation programme, developed a provisional national quality standard for marine biofuel specifications for blends up to B50<sup>1</sup>. The standard was developed in consultation with stakeholders to support trials on biofuel's potential as a drop in fuel.

To support the trials, MPA also developed new framework-setting conditions for licensed bunker suppliers to supply biofuel within the Port of Singapore. In 2022,

the Port of Singapore registered 140,000 tonnes of bio-fuel bunker sales supplied over 90 operations, more than the 16,000 tonnes of liquefied natural gas sold.

To improve quality assurance, MPA is working with the Technical Committee for Bunkering (Ambient Liquid Fuels) to study the impact of biofuel on the metrological accuracy of mass flow meters and is working with stakeholders to amend the SS 648: 2019 Code of Practice for Bunker Mass Flow Metering to include biofuels in its scope.



The CMA CGM group started biofuel bunkering trials in the Port of Singapore with the APL PARIS in February 2022. Photo credit: CMA CGM

## Development of Technical Reference for Methanol Bunkering

The adoption of low and zero carbon fuels by marine vessels takes into account several operational considerations, including engine modifications, vessels' operating profile, fuel supply chain along the trading routes and overall, safety of vessel bunkering.

MPA started work with key stakeholders to jointly develop a proposal to commence work on a Technical Reference for methanol bunkering. The Technical Reference will support the adoption of methanol in the Port of Singapore, and will cover operational and safety requirements, custody transfer requirements as well as crew training. The joint proposal was approved by the Chemical Standards Committee<sup>2</sup> in November 2022 and drafting of the standards is expected to commence in the second quarter of 2023.



The provisional national standard on specifications on marine biofuel was developed in consultation with relevant industry experts.

<sup>1</sup> For biofuel blends where biofuel makes up 50% of the marine fuel

<sup>2</sup> The Chemical Standards committee is a committee under the Singapore Standards Council that spearheads the development and promotion of chemical standards to advance Singapore into a world-class bunkering hub.

# Building a Sustainable Future

In October 2022, Deputy Prime Minister and Minister for Finance Lawrence Wong outlined Singapore's national strategy to develop hydrogen as a major decarbonisation pathway to support Singapore's international climate commitment to achieve net zero emissions by 2050.

Due to their low to zero carbon emission properties, hydrogen and its derivatives such as ammonia have the potential to be feasible alternatives to existing fossil fuels currently used in the maritime sector. Although the technology and infrastructure to support hydrogen as an energy source are still under development, Singapore has begun to study and develop the hydrogen supply chain.

## Developing Net Zero Energy Infrastructure; New MPA Building at Tuas

MPA is committed to developing energy efficient infrastructure. When completed in 2027, the new MPA building at Tuas will be one of the most energy efficient buildings in Singapore. By introducing smart and energy efficient features, the building will be almost 50% more energy efficient compared to similar buildings. The new MPA building will house a new Port Operations Control Centre and other functions and spaces to support the Tuas Ecosystem.

## Developing Safety Standards

With different risk profiles, low to zero-carbon fuels will require new safety standards. These are being developed by MPA and relevant agencies with input from various research centres. There is ongoing work to develop safety guidelines and operational envelopes that will facilitate the development of a regulatory sandbox for ammonia bunkering trials.

## Standards for Ammonia Bunkering

MPA and the Singapore Chemical Industry Council (SCIC) have initiated a standards development process for ammonia as a marine fuel. A pro tem committee was established in 2022, comprising representatives from the port and fuel storage terminal operators, ammonia manufacturers, fuel suppliers, ship owners/operators, shipyards and academia, to evaluate gaps and identify the scope of standards needed to meet industry needs. A work item proposal was submitted and presented to the Technical Committee for Bunkering (Cryogenic and Gaseous Fuels) in December 2022 to support the development of the standards. Drafting of the standards is expected to commence in the second quarter of 2023.

In December 2022, MPA, together with the Energy Market Authority, jointly launched an Expression of Interest (EOI) to develop low and zero carbon ammonia power generation and bunkering solutions. Open till April 2023, the EOI invited parties propose end-to-end solutions for the use of ammonia as an alternative bunker.

## Redevelopment of Maritime House

The Maritime House at Cantonment Road is also being redeveloped and will continue to ensure seafarers' welfare through affordable accommodation. The new Maritime House will also serve as an international training and research hub, aimed at enhancing Singapore's maritime workforce, and provide a place for international meetings. Demolition works of the existing building have started, and the project is targeted to be completed by 2023.

## Development of The Waterfront for All, InnoVation, Enterprise and Sustainability (WAVES) at Marina South

MPA's then Chief Executive, Ms Quah Ley Hoon, unveiled the development plans for Marina South during Singapore Maritime Week 2022.

The *Waterfront for All, InnoVation, Enterprise and Sustainability (WAVES)* is an integral part of MPA's plan to develop an integrated maritime precinct at Marina South. The WAVES will be the focal point of maritime innovation and decarbonisation in Singapore, housing research institutes, start-ups, accelerators, and incubators in a single location on the waterfront. The building will be designed to tap on renewable energy and be constructed using sustainably sourced building materials.

The conceptual design has been developed and a multi-disciplinary team of consultants will be appointed to further develop and enhance the design.

## Adaptation to Sea Level Rise

Singapore is a low-lying island city state particularly vulnerable to climate change and sea level rise. To safeguard our coastlines, MPA is studying various adaptation measures to protect our facilities and container terminals.

For facilities on mainland Singapore, we work with relevant government agencies in jointly developing system-level adaptation measures. Tuas Port has been designed to be at least 5 metres above mean sea level. For MPA's offshore facilities, a site-specific engineering study is underway to develop suitable adaptation measures.



The sea level rise study team conducting the site appreciation and survey at Sultan Shoal Lighthouse.

## Smart Energy Management for MPA's Properties and Facilities

MPA is exploring a suite of solutions to enhance energy efficiency in its facilities. Smart applications will be able to perform predictive maintenance and data analytics, thereby lowering our utilisation costs and carbon footprint.

### Smart Meters



Installed at Marina South Pier (MSP) in July 2022 to track electricity consumption. The smart meters are able to detect and transmit signals, allowing us to analyse usage patterns.

### Smart Toilet Technology



This technology was introduced in offices at mTower and MSP to continuously monitor ammonia levels and usage to ensure optimal convenience, health and user comfort.

# Building a Sustainable Future

## Collaborating for Strong, Credible, and Inclusive Climate Action

MPA actively works with like-minded partners to drive the development of green and digital corridors that complement the decarbonisation and digitalisation efforts by the IMO and maritime industry. By offering a sandbox environment to trial new technologies and fuels, the corridors aim to support the rapid scale-up of green and digital solutions for wider adoption across the industry.

To this end, Singapore joined the Clydebank Declaration for Green Shipping Corridors as a signatory in April 2022, alongside 24 fellow signatory States. MPA and the Port of Rotterdam Authority also signed a Memorandum of Understanding (MoU) in August 2022, establishing the world's longest green and digital shipping corridor. The MoU aims to enable low and zero carbon shipping, as well as enhance efficiency, safety, and transparency through the use and exchange of data and electronic documentation.

More collaborations are underway with other partners. On 7 November 2022, MPA announced the

commencement of discussions with the Port of Los Angeles, Port of Long Beach and C40 Cities to establish a green and digital shipping corridor between Singapore and the San Pedro Bay port complex.<sup>1</sup> This announcement supports the Green Shipping Challenge launched during the World Leaders' Summit at 27<sup>th</sup> Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27), the 17<sup>th</sup> session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP17), and the 4<sup>th</sup> session of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA4).

Additionally, under the Singapore-Australia Green Economy Agreement signed in October 2022, Singapore is working closely with Australia to advance bilateral green shipping cooperation, which includes the establishment of green shipping corridors under the Clydebank Declaration.



MPA and the Port of Rotterdam sign the MoU to establish the world's longest Green and Digital Corridor to enable low and zero carbon shipping.

<sup>1</sup> The MoU with the Port of Los Angeles and Port of Long Beach was signed in April 2023.

## Raising Awareness of Singapore's Maritime Decarbonisation Initiatives at COP27/CMP17/CMA4

To raise awareness of Singapore's green initiatives at the COP27/CMP17/CMA4 meetings in Sharm El Sheik, Egypt, Singapore erected the Singapore Pavilion with the theme 'Building a Future of Green Possibilities'. The Pavilion highlighted Singapore's initiatives to achieve a net zero future by 2050 by planting the seeds of change in our economy, environment and society.



The MPA delegation at COP27/CMP17/CMA4, Sharm El Sheik, Egypt.

MPA participated at the "Transport and Youth" Day on 10 November 2022, MPA shared Singapore's Maritime Decarbonisation Initiatives to an international audience, inspiring and driving further discussion on decarbonisation in the maritime sector.



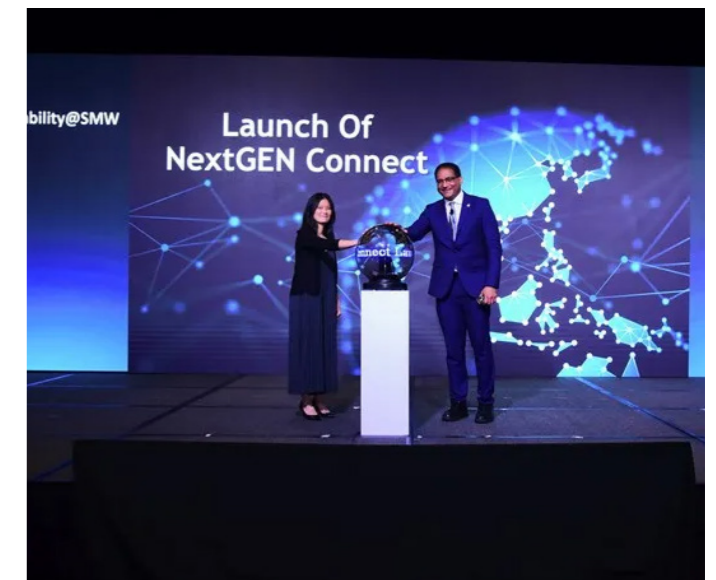
(Second from right) Mr New Wei Siang, Director (Sustainable Energy & Decarbonisation), giving a briefing at COP27/CMP17/CMA4.

## NextGEN Connect

MPA takes an inclusive approach to maritime decarbonisation, underpinned by stakeholder collaboration, technical cooperation, and capacity-building.

Singapore and IMO jointly launched the NextGEN virtual ecosystem — where "GEN" stands for Green and Efficient Navigation — in 2021. Since its inception, NextGEN has received more than 260 project contributions from more than 970 partners.

Building on this capability, Singapore and IMO launched the NextGEN Connect on 6 April 2022. The initiative aims to solicit proposals for route-based action plans in the Asia-Pacific region, to reduce greenhouse gas emissions between specific points. Response to NextGEN Connect has been heartening and MPA is working with IMO and partners to evaluate and implement successful proposals on a wider scale across the region.



NextGEN Connect was launched at the Singapore Maritime Week, 6 April 2022.

# Building a Sustainable Future

## Accelerating the Adoption of Zero and Low Carbon Fuels in Singapore

In 2011, MPA initiated the Maritime Singapore Green Initiative (MSGI) to encourage the industry to voluntarily adopt environmentally friendly shipping practices.

Enhancements to the Green Port Programme (GPP) and Green Ship Programme (GSP) were announced on 1 May 2022 that aims to further incentivise the sector to switch to zero or low carbon fuels when calling at the Port of Singapore. The key changes under the programmes include rebates in registration fees and annual tonnage taxes as well as reduction in port dues for ships with zero and low carbon-fuelled engines.

With the enhancements, Singapore-flagged ships awarded the GSP will also be awarded the Singapore Registry of Ships' (SRS) Green Notation, recognised by RightShip, the world's leading ship vetting company. The inclusion of the SRS Green Notation on Rightship's digital maritime platform affirms the notation's quality standards, as well as encourage more vessel owners to implement low-carbon energy-efficient solutions on their Singapore-flagged ships.

## Singapore Registry of Ships Forum 2022

The Singapore Registry of Ships (SRS), one of the top five ship registries in the world, held its annual Forum in November 2022. More than 350 participants, comprising key industry players in the shipping sector, attended the event.

Themed "Charting the Next T.I.D.E."<sup>1</sup>, the forum covered topics such as maritime energy transition, fleet quality improvement, flag and port state control, cyber security, shipping operational safety and decarbonisation strategies, featuring speakers from the Centre of Excellence in Maritime Safety, Singapore Polytechnic, Australian Maritime Safety Authority, as well as MPA's Sustainability Office, Shipping Division, and Information Technology Division.

Awards were also conferred during the Forum. Evergreen Marine Corporation (Taiwan) Ltd was awarded the Top Net Tonnage Contributor Award for registering the highest nett gross tonnage under the

In 2022, 25 Singapore-flagged ships from 13 companies received Green Ship certificates and incentives under the GSP, bringing the total number of ships recognised under the GSP to 660, since the inception of MSGI in 2011.



Capt M Segar, Assistant Chief Executive (Operations) presenting the Green Ship Programme Award to one of the awardees, E4C Shipping.

SRS in Year 2021-2022. 29 Singapore-flagged ships also received their Green Ship certificates under the Green Ship Programme, which recognised their efforts in reducing the environmental impact of their fleet.



All smiles at the SRS Forum.

## Raising Awareness: MaritimeSG Carbon50 Awards

At the Singapore Maritime Week 2022 in April 2022, MPA presented the inaugural MaritimeSG Carbon50 Award to recognise maritime companies that have undertaken efforts to enhance sustainability.

Four companies received the award, namely Hong Lam Marine Pte Ltd, Jurong Port Pte Ltd, Victory Pte Ltd, and Viswalab Pte Ltd.

The evaluation panel from MPA, the Singapore Shipping Association (SSA) and Global Compact Network Singapore (GCNS) assessed the awardees based on the three main criteria of emission reduction, innovation and scalability.

To raise awareness of the environmental impact of carbon emissions and carbon management, MPA continues to work with SSA and GCNS to conduct low carbon management workshops for maritime companies. Participants will also be introduced to LowCarbonSG, a nationwide capability building programme to help businesses measure and monitor their carbon footprint via the Carbon & Emissions Recording Tool (CERT).

## Appointment at the International Maritime Organization

MPA officer Mr Tan Hanqiang, currently serving as First Secretary (Maritime) at the High Commission of the Republic of Singapore to the United Kingdom, was appointed by the IMO as Vice-Chair of the IMO Marine Environment Protection Committee (MEPC). His appointment marks the first time in over 20 years in which a Singaporean has held the position. Previously, MPA officer Mr Zafrul Alam served as MEPC Vice-Chair from 1999 to 2000.

As one of the five main Committees at the IMO, the MEPC addresses environmental issues under the IMO's remit including the decarbonisation of the global maritime sector, control and prevention of ship-sourced pollution such as air pollutants, as well as matters such as ballast water management and pollution preparedness and response.



Mr Kenneth Lim, Assistant Chief Executive (Industry & Transformation) (left), presenting the Carbon50 Award to recipient Viswalab Pte Ltd.



Mr Tan Hanqiang is the first Singaporean in over 20 years to be appointed as Vice-Chair of the IMO Marine Environment Protection Committee.

<sup>1</sup> Talent, Innovation, Decarbonisation and Embracing Change

# 02

## DEVELOPING A RESILIENT DIGITAL MARITIME SUPPLY CHAIN

- A resilient digital supply chain can help increase efficiency of operations, strengthen cybersecurity, create capacity for innovation and promote information-sharing across the entire sector.

MPA has made strides in building the digital ecosystem for Maritime Singapore, improving infrastructure for test bedding new technology, developing the research and development and startup sectors, strengthening our cybersecurity threat resilience, and creating more opportunities for exchange of data and innovative ideas in the maritime industry.





# Developing a Resilient Digital Maritime Supply Chain

## Enhancing the Sea Transport Industry Digital Plan

The Sea Transport Industry Digital Plan (IDP) is a joint initiative that we have developed with the Infocomm Media Development Authority, Enterprise Singapore and SkillsFuture Singapore, as part of the SMEs Go Digital Programme that makes going digital simple and accessible for small and medium enterprises (SME).

In 2022, the IDP was expanded to include all subsectors in shipping, covering chandlers, brokers, marine surveyors, ship management and operators. Additionally, co-funding support has been made available to companies to adopt pre-approved digital solutions beyond 31 December 2022, potentially benefitting more than 3,000 SMEs.

## Encouraging Ground Up Innovation with the Smart Port Challenge Digital Plan

The Smart Port Challenge is a competition for start-ups to pitch innovative ideas and solutions for maritime companies in Singapore.

Accelerate Programme<sup>1</sup>, with the top nine companies of the group moving on to deliver the final pitch.

Start-ups were invited to reimagine and submit their proposals for assessment. The grand final concluded on 18 November 2022 with a strong focus on green technology, sustainable energy, and waste management. Out of 146 qualified submissions, 17 start-ups were selected to embark on the PIER71™

The first, second and third places were awarded to GotSurge, GreenCOP and Seadronix respectively, following an evaluation by a panel of judges of their proposed system, business model, market potential, impact to the maritime industry and overall team capabilities.



Participants at the Grand Finals of the Smart Port Challenge 2022.

## Growing New Maritime Capabilities

To build core maritime research and development (R&D) capabilities in Singapore, MPA worked with the Singapore Maritime Institute (SMI) on initiatives ranging from maritime artificial intelligence (AI) to energy and sustainability.

AI Research programme, together with other institutes of higher learning, research institutes, industry, and public sector partners. The first phase of the programme will focus on maritime data excellence and AI modelling excellence as well as use cases.

In April 2022, the Maritime AI R&D Grant Call was launched with industry partners — including Kongsberg Digital AS, RightShip and Wärtsilä Voyage — to address common gaps and opportunities arising from the increased use of automation in the maritime industry. To kick-start this effort, SMI awarded grants to three proposals from the National University of Singapore and Singapore Institute of Technology.

SMI awarded the Phase 2 funding for the Maritime Energy and Sustainable Development Centre of Excellence (MESD) and Centre of Excellence in Modelling and Simulation for Next-Generation Ports (C4NGP) to further deepen maritime decarbonisation R&D and develop projects for industry deployment. These projects include trials on alternative fuels and adoption pathways, and application of digital twinning technology in the maritime industry.

SMI awarded S\$4.7 million to A\*STAR's Institute of High-Performance Computing to lead the Maritime



Mr Wong Weng Sun, then SMI Chairman, delivering the welcome address at the SMI Forum.

<sup>1</sup> PIER71 Accelerate is a six-week market validation and customer discovery programme.

# Developing a Resilient Digital Maritime Supply Chain

## Moving Towards a Maritime 5G Network

In August 2022, MPA and the Infocomm and Media Development Authority (IMDA) signed a Memorandum of Understanding (MoU) to develop a Maritime 5G network to provide 5G cellular connectivity in our major anchorages, fairways, terminals, and boarding grounds by 2025.

5G network coverage over our port waters will accelerate MarineTech research and development, as well as the testing and deployment of new digital applications that consume large amounts of real-time data, such as remote pilotage and autonomous vessels, over the next decade. Such applications will improve maritime efficiency and enhance navigational safety. 5G network coverage will also support digital services in the maritime domain such as digital bunkering, drone deliveries and telemedicine. Work has already commenced to build the Maritime 5G base stations, with the first three on schedule to be operationalised in 2023.



Participants from MPA, IMDA and M1 at the 5G project kick-off meeting.

## Optimising Vessels' Time in the Port of Singapore with digitalPORT@SG™

The digitalPORT@SG™ Just-In-Time (JIT) Planning and Coordination Platform aims to optimise the arrival and departure time of vessels and enable faster ship turnaround in the Port of Singapore, thereby increasing port efficiency and reducing business cost to the industry. Minimising vessels' idling time in the port also helps to reduce carbon emissions.

'Live' trials for Phase Two of digitalPORT@SG™ commenced in May 2022 with a total of 27 companies onboarding to the JIT trials. Phase Two is expected to be fully operational in 2023.

## Fostering Global Interoperability with digitalOCEANS™

digitalOCEANS™ aims to harmonise data standards and promote data exchange through Application Programming Interface (API) to achieve system interoperability between vessels, ports, and supply chain stakeholders, thereby enabling digital connectivity to foster efficient transactions and services integration across key stakeholders of the global maritime transport chain.

The first set of API specifications for port clearance regulatory data was developed and launched in November 2021 with like-minded partners. This helped lay the foundation for data exchange collaborations. For example, today, Singapore and Guangdong, China, can exchange 25 types of ship e-certificates for use in port clearances and Port State Control via APIs. As such, ship agents can be relieved from the burden of uploading numerous certificates and a vessel's port entry and departure can be made smoother with easier rectification of invalid certificates.



digitalOCEANS™ aims to foster global maritime transport interoperability through common data standards and API exchanges.

## Developing Digital Bunkering

Digital bunkering development covers mobile applications and hardware solutions to enhance efficiency in bunkering documentation and compliance, such as the electronic Bunker Delivery Note (eBDN) for submission to MPA's digitalBunker@SG.

Innovation and Technology (MINT) Fund. Projects on trial include the development of the world's first digital identities for vessels under the IMO database, which will enable vessels to do away with wet ink ship stamps and physical signatures.

In 2022, seven consortium projects from the Call-for-Proposals were awarded under MPA's Maritime



Seven consortium projects were awarded to develop digital solutions for bunkering operations.

# Developing a Resilient Digital Maritime Supply Chain

## Driving Industry Adoption of Electronic Bills of Lading

In June 2022, MPA awarded two projects under the Maritime Innovation and Technology (MINT) Fund to encourage industry adoption of electronic Bills of Lading (eBL). The consortiums were awarded after a call for proposal was issued by MPA in 2021 to catalyse eBL projects for cross-border trade. The two project consortiums were:

- **Container segment:** GeTS Asia, Mitsui & Co (Asia Pacific), Pacific International Lines and essDOCS Asia Pacific; and
- **Dry Bulk segment:** Minehub Technologies Singapore, Sinotrans, BS Logistics, Kimura Capital and Contour.

## Developing a New Maritime Testbed for Shipboard Operational Technology

To enhance ships' resilience against cybersecurity risks, MPA, together with the Singapore Maritime Institute, institutes of higher learning and classification societies, awarded a grant in October 2022 to iTrust to develop the Maritime Testbed of Shipboard Operational Technology (MariOT) system.

## Proof of Concept for Maritime Connectivity

Besides enhancing cellular connectivity through Maritime 5G, MPA also supported Inmarsat in the development of ORCHESTRA, a multi-layer, multi-hop network-of-networks aimed at enhancing ships' internet connectivity in the open seas. ORCHESTRA aims to provide a single advanced solution for global mobile connectivity through the seamless combination of Inmarsat's satellite-based networks.

Various Proof-of-Concepts (POCs) at selected locations were facilitated by MPA to help Inmarsat evaluate and assess the performance of their suite of wireless technologies and products that were tested in the Port of Singapore, one of the busiest ports in the world with a high density of vessels. These POCs were successfully concluded in July 2022.

## Strengthening Maritime Cybersecurity Capabilities

In December 2022, MPA upgraded Maritime Security Operations Centre with more advanced capabilities to enhance early threat detection, monitoring, response, information sharing and analysis for its critical information infrastructure.

MPA will also establish a Maritime Cyber Assurance and Operations Centre (MCAOC) in collaboration with the industry. When fully operational in 2025, it will provide real-time security monitoring and disseminate information to mitigate cyber threats, advise on post-incident measures, and facilitate information sharing and provide training.

## Ensuring Cybersecurity Resilience

To drive resilience and preparedness, MPA not only participated in WOG-level cybersecurity exercises, but organised sector-wide crisis exercises of our own. Several key exercises are highlighted as follows:

### EX CYBER STAR 22

As the maritime sector lead for cybersecurity, MPA participated in Ex Cyber Star, a Whole-of-Government cybersecurity exercise designed to test Singapore's cyber incident management and emergency response plans.

### CIDEX 22

MPA took part in the inaugural Critical Infrastructure Defence Exercise (CIDEX) which was organised by the Singapore Armed Forces. The aim of the exercise was to prepare and strengthen Singapore's capabilities in handling cyber-attacks in the event of a national emergency.

### EX CYBERMARITIME 22

MPA also successfully led a maritime sector-wide cyber readiness tabletop exercise in November 2022, with participation from PSA Corporation, Jurong Port, Pacific International Lines and Kongsberg Norcontrol.



Wireless equipment at Bedok Lighthouse for the Proof-of-Concept.

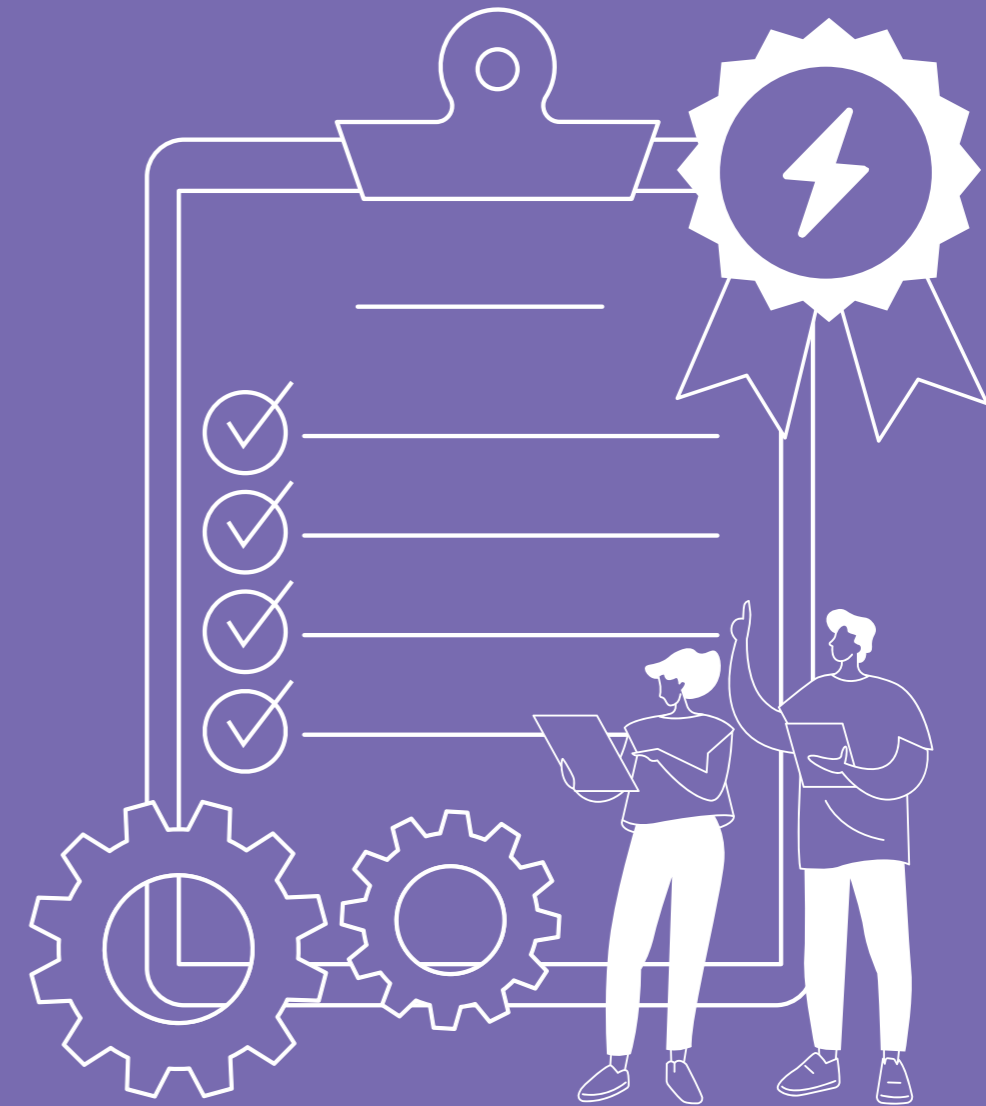


All hands on deck at Ex CyberMaritime, December 2022.

# 03

- To cement Singapore's position as a global hub port and international maritime centre, MPA is committed to developing the maritime ecosystem by enhancing its resilience and building its capabilities to meet future demands.

## CREATING CAPACITY TO MEET FUTURE DEMAND



# Creating Capacity to Meet Future Demand



Developments at Tuas Port Phase One.

## Continued Development of Tuas Port

On 1 September 2022, Prime Minister Lee Hsien Loong officiated the opening of Tuas Port. The event marked a major milestone for MPA as we develop Singapore's Next-Generation Port.

Development of Tuas Port will be done over four phases. Reclamation works for Phase 1 were completed in November 2021. Reclamation works for Phase 2 is about 60% completed. Planning and design works for Tuas Port Phase 3 has commenced.



Developments at Tuas Port Phase Two.



Prime Minister Lee Hsien Loong (centre) officiates the opening of Tuas Port. Photo credit: PSA Singapore.

# Creating Capacity to Meet Future Demand

## Greater Push for Sustainable Port Development

The development of Tuas Port adopts several innovative and sustainable engineering solutions to protect the environment and reduce carbon footprint. Under our coral conservation programme with various environmental interest groups<sup>1</sup> in 2015, some 2,300 coral colonies from Sultan Shoal were relocated to coral nurseries at St John's and Sisters' Islands before the start of the reclamation works. During reclamation works, dredged seabed materials were repurposed as land reclamation and caisson fillings, reducing the need to import such materials, and brought cost savings of about S\$1 billion.

In the development of Tuas Port Phase 2, we continued to recycle dredged and land-excavated materials into reclamation fill, resulting in further cost savings to the project. To monitor the materials used, MPA is currently working with Nanyang Technological University and DHI Water & Environment to develop a new remote sensing approach with Unmanned Aerial Vehicles (UAV). The UAVs use multispectral cameras and artificial intelligence aided imaging analysis to monitor silt plume dispersion in coastal waters on demand. The project is expected to complete this year and will be implemented in our future reclamation projects.

As the planning for Tuas Port Phase 3 continues, MPA is currently working with various agencies, including

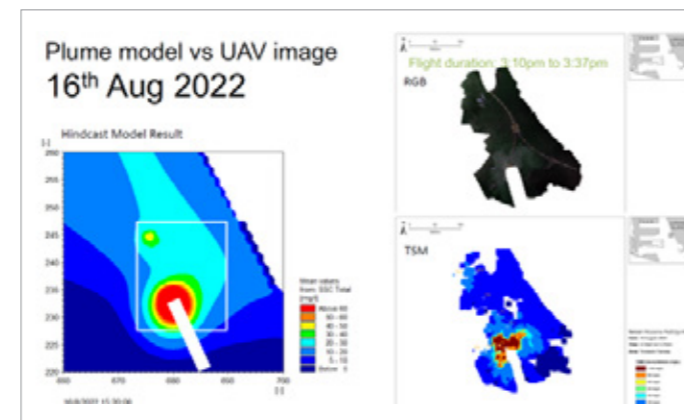
## Connecting the Tuas Ecosystem

Tuas Port will be at the heart of a well-integrated business-industrial district in the western region. To enhance the competitiveness and operations of Tuas Port, MPA is working with the relevant government agencies to jointly develop the Tuas Ecosystem and reap synergies by co-locating complementary industry clusters with high levels of interactions with the port.

Through co-locating various complementary industry clusters, such as advanced manufacturing, cold-chain, e-commerce and logistics, industries can tap Tuas Port's global connectivity to unlock supply chains synergies to bring about greater efficiencies in production and trade flows.

the National Environment Agency, for a joint study to explore the feasibility of using Semakau Landfill mixed materials as a reclamation fill to benefit Singapore's circular economy efforts.

Pushing for greater sustainability in port development, MPA is working with A\*STAR SimTech and PSA to conduct life cycle analyses and life cycle costings to gain a better overall understanding of Tuas Port Phase 1 project's total carbon impact over the whole life cycle of the port.



Comparison between a silt plume model and UAV image taken during the trial flights for the UAV-Based Remote Sensing of silt plume dispersion in Coastal Waters Project.



## Launch of MPA Guardian

MPA's newly enhanced patrol craft, the *MPA Guardian*, was commissioned on 8 April 2022 at a commemoration ceremony at Marina South Pier.

Developed in collaboration with the Defence Science and Technology Agency (DSTA) and Penguin Shipyard International, the *MPA Guardian* was built to improve MPA's patrol craft fleet capabilities. The hybrid diesel-electric aluminium catamaran measures 34 metres and is equipped with a comprehensive suite of assets for specialised operations. The *MPA Guardian* will have shallow water rescue capabilities, a launching platform for drones, and equipment to contain and respond to marine oil spills. It will also be used as a test bed platform for new technologies and equipment.

The *MPA Guardian* will join our existing fleet of six next-generation patrol craft and has the capability to be deployed for command-and-control during operations such as search and rescue, salvage, ferry incidents, as well as oil spill response.

The enhanced patrol craft will be primarily deployed for patrolling duties within the port, and with its sea-keeping capabilities, is also on standby for responding to marine incidents outside the port.

The *MPA Guardian* is fitted with a hybrid diesel-electric system which helps lower carbon emissions.



The MPA team on the deck of the *MPA Guardian*.

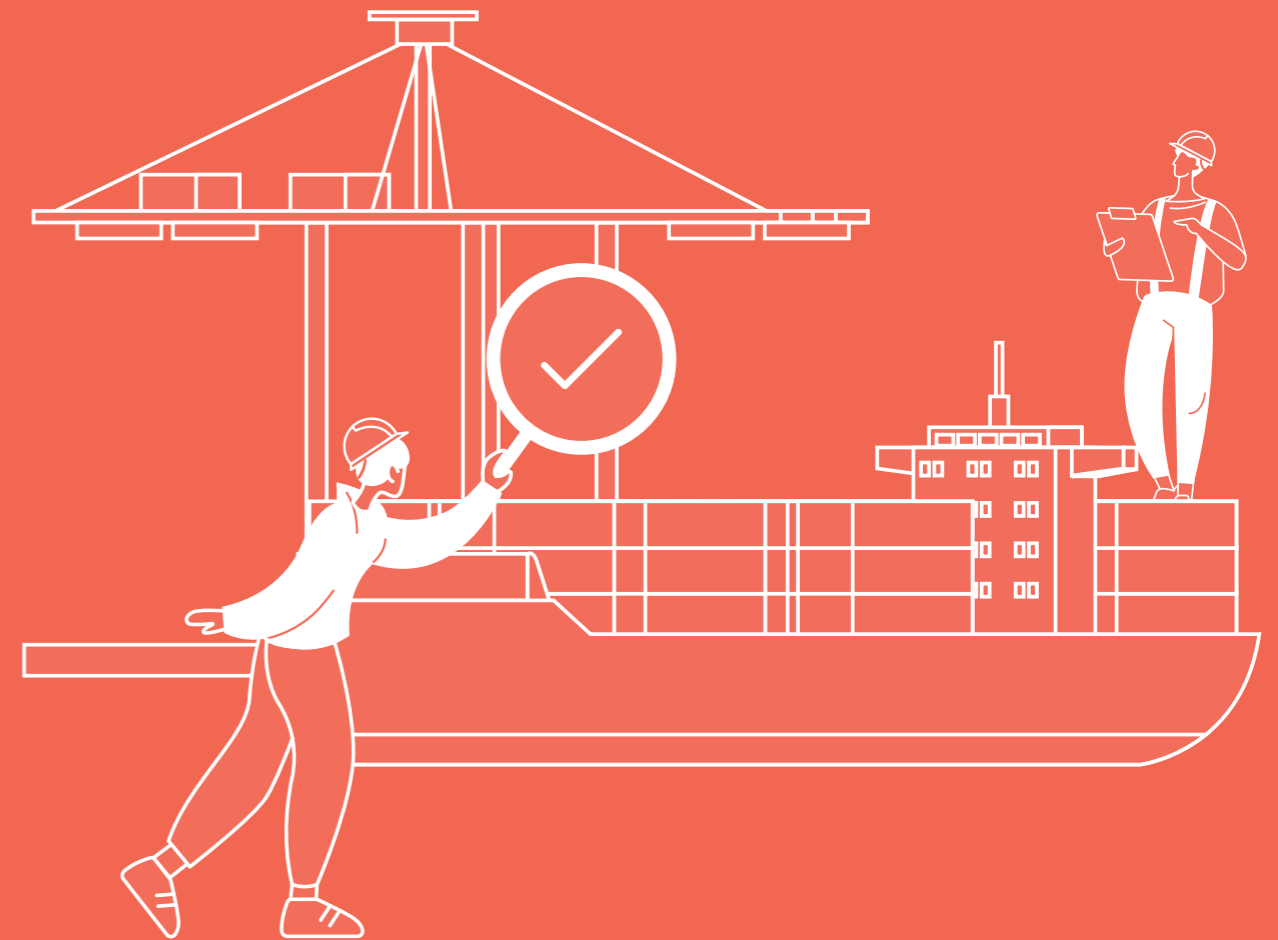


The *MPA Guardian* has lower carbon emission and is equipped with assets that can meet the rigorous demands at sea.

<sup>1</sup> Volunteer groups include Blue Water Volunteers, Hantu Bloggers, Nature Society (Singapore), Singapore Boating Industry Association, Singapore Environment Council, Singapore Reef and Marine Conservation Committee and Wild Singapore.

# 04

- To keep our sea lanes open and safe, MPA continuously works towards building effective emergency responses by conducting regular ground and table-top exercises and leveraging on technology to strengthen our response capability. MPA also organises the International Safety@Sea Week to share issues, best practices and experiences pertaining to maritime safety with the industry.



## KEEPING OUR SEA LANES OPEN AND SAFE

# Keeping our Sea Lanes Open and Safe

## International Safety@Sea Campaign

The International Safety@Sea (ISAS) campaign is an industry-wide movement by MPA aimed to enhance maritime safety and promote the message of a safety-first culture at sea.

First launched in 2014, the 2022 campaign focused on the human element in marine incidents to raise

safety standards, encourage community involvement and safeguard against complacency. MPA shared insights from partnerships with industry stakeholders to promote a strong and proactive safety culture, improve safe navigation, and encourage communication and information sharing.



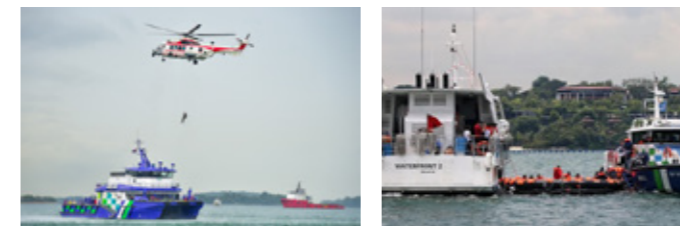
Dr Heike Deggim, Director, Maritime Safety Division, IMO, at the opening session of ISAS 2022.

## Ferry Rescue Exercise (FEREX) 2022

MPA's Ferry Rescue Exercise (FEREX) was conducted on 29 August 2022. The aim of the Exercise was to test the Whole-of-Government (WOG) response to ferry mishaps within Singapore's port waters, as well as to validate MPA's revised crisis management plans.

FEREX has taken on greater significance as borders began reopening in 2022, with the resumption of ferry services between Singapore and neighbouring countries.

FEREX 2022 was held in conjunction with the International Safety@Sea Week. More than 200 personnel from various agencies — including the Immigration and Checkpoints Authority, Ministry of Health, Singapore Civil Defence Force, the Navy and Air Force, and private companies such as the Singapore



Cruise Centre, participated in the exercise. The exercise was witnessed by Minister for Transport and Minister-in-Charge of Trade Relations Mr S Iswaran, as well as operations commanders from participating agencies.



FEREX 2022 involved over 200 personnel from emergency response agencies, armed forces, and the private sector.

## Joint Oil Spill Exercise (JOSE) 2022

MPA also led a multi-agency Joint Oil Spill Exercise (JOSE) to demonstrate Singapore's readiness to deal with oil spills at sea. Held on 7 October 2022, JOSE 2022 involved over 100 personnel from the Civil Aviation Authority of Singapore, SCDF and the Police Coast Guard, together with private sector stakeholders Shell Companies in Singapore and Oil Spill Response Ltd (OSRL).

Our latest patrol craft, the *MPA Guardian*, directed and coordinated the efforts, including the deployment



of oil containment booms and skimmers, as well as the deployment of a C-130 aircraft to spray oil dispersants. The exercise was observed by 80 delegates from the Singapore International Bunkering Conference (SIBCON).



MPA also led the Joint Oil Spill Exercise (JOSE) in 2022 to demonstrate Singapore's readiness to deal with oil spills at sea.



# Keeping our Sea Lanes Open and Safe

## Strengthening Incident Response Capabilities

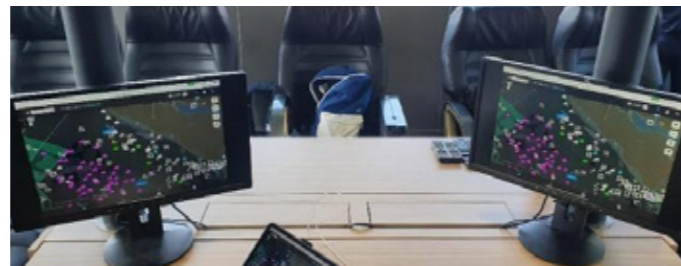
Recognising that technology can enhance maritime safety, MPA is developing the Integrated Port Operations Command, Control and Communications (IPOC) system. IPOC is aimed to augment incident and crisis management, support day-to-day port safety and security operations, and facilitate inter-agency collaboration through streamlining work processes. IPOC will be rolled out in phases and is targeted to be completed in 2026.

A joint project between MPA and Defence Science and Technology Agency (DSTA), IPOC uses artificial intelligence to detect and analyse anomalies from various sensors and data sources. This advanced sense-making capability leads to a quicker response to incidents at sea, strengthening MPA's maritime enforcement abilities.

IPOC Software Release 1 (SR1) was successfully implemented in August 2022 which included key features such as the monitoring of port marine activities, vessel monitoring and a smart virtual assistant. SR1 was demonstrated during FEREX 2022. During the exercise, iPads with IPOC software were deployed to provide participants with a consolidated view of the real-time situation via functions such as the incident workspace and casualty dashboard.



Demonstration of the IPOC Software Release 1 for management of ferry-related incidents to Minister of Transport and Minister-in-Charge of Trade Relations Mr S Iswaran.



An IPOC mobile setup onboard the MPA Guardian at FEREX 2022.



The IPOC team at FEREX 2022 exercise.

## Developing a Digital Twin: GeoSpaceSea Phase 2B

To prepare for new technologies to be implemented, MPA is working towards developing a digital twin model for the port and port waters. The digital twin is being developed using high quality datasets from Geospace-Sea, which can be turned into visualisation models for real-time operations. Having a digital twin will also allow solution providers to develop and test their ideas safely in a real-world setting before actual implementation.

In August 2022, we made GeoSpaceSea, a spatial data infrastructure that harnesses and integrates publicly-accessible marine and coastal geospatial data. GeoSpaceSea provides comprehensive and consolidated geospatial information which can be used for various applications including port, marine and coastal planning, and environmental management.

Users can now securely upload and download data on GeoSpaceSea's web portal. This initiative aims to facilitate collaboration among the government, industry, and academia in areas such as marine science research

and development, marine conservation, and climate change adaptation. A wider suite of functions such as data visualisation, analytical tools and reports will subsequently be introduced to the platform.

GeoSpaceSea supports national sustainability initiatives such as monitoring and understanding the impact of climate change. For instance, the Centre for Climate Research Singapore under the National Environment Agency uses it to deepen its understanding of how rising sea levels could affect Singapore. PUB also used it to aid flood risk assessment.

Moving forward, GeoSpaceSea will be used in digitalPORT@SG™, supporting the active anchorage management system. It will also partner research and development centres such as the Technology Centre for Offshore and Marine Singapore to provide data on tides, currents, waves, and storm surges for better prediction of the hydrodynamic environment around Singapore.



Spatial visualisation of GeoSpaceSea dataset. The platform aims to enhance efficiencies in sea, port, and coastal space planning.

# Keeping our Sea Lanes Open and Safe

## Resumption of Cross Border Ferry Services



Visitors arriving in Singapore via the Vaccinated Travel Lane (Sea) in February 2022.

To restore connectivity and facilitate the safe resumption of international travel, Singapore implemented the Vaccinated Travel Framework (VTF) in April 2022 superseding the VTL. Under the VTF, fully vaccinated travellers were able to enter Singapore without needing to serve a quarantine.

In the reopening of ferry routes between Singapore and Indonesia under the VTL(Sea) and VTF(Sea), MPA worked closely with stakeholders to ensure passenger safety through safe management measures such as setting weekly passenger quotas, designating vessels for travel, and ensuring necessary documentation for travel and return. More than 1,900 passengers from Batam and Bintan entered Singapore when VTL(Sea) was opened to Indonesia from 25 February 2022 to 31 March 2022.

## Resumption of Ferry Services at Regional Ferry Terminal at Harbourfront Centre

With the reopening of borders, MPA resumed operations at the Regional Ferry Terminal (RFT) on 15 June 2022. MPA worked with the relevant stakeholders to ensure that the health and safety of workers and passengers were not compromised.



Visitors arriving in Singapore via the Vaccinated Travel Framework (Sea) at HarbourFront Ferry Terminal in June 2022.

## New Ferry Service between Singapore and Desaru, Malaysia

A new ferry service between Singapore and Desaru, Malaysia, began operations on 7 July 2022. MPA worked with stakeholders to ensure that the proposed ferry route met the navigational safety assessments. In 2022, a total of 188 trips have been made, with some 15,700 passengers on board.



The new ferry service between Singapore and Desaru, Malaysia, began operations on 7 July 2022.

## Communicating Safety Messages

As part of the International Safety@Sea Week in August 2022, MPA launched an educational video on the safe boarding of vessels, together with the Workplace Safety and Health (WSH) Council and the National Maritime Safety at Sea Council (NMSSC). The safety video was screened at Marina South Pier and West Coast Pier to remind passengers boarding and disembarking vessels about good WSH practices.

An accompanying booklet containing case studies for working safely in and around the sea was also launched at the event. Aimed at sharing best practices to avoid workplace injuries and fatalities, the booklet featured 10 case studies, including transfer at sea, transport via barges, mooring, and diving operations.

MPA also developed posters for display at both piers to highlight these resources to maritime shore-based personnel.



Posters displayed at MPA piers to promote safety practices.



The video on safe boarding of vessels on prominent display for passengers.

## Maritime Rescue Coordination Centre coordinated the rescue of 303 persons

On 7 November 2022, MPA's Maritime Rescue Coordination Centre (MRCC) coordinated a successful Search and Rescue (SAR) operation for a sinking vessel off the coast of Vietnam, working in close coordination with the MRCCs in Vung Tau, Vietnam and Sri Lanka.

*MV Helios Leader*, a Japanese-flagged car carrier, which was in the vicinity of the sinking vessel, responded immediately to a safety broadcast made by Singapore MRCC resulting in the safe rescue of all 303 people on board.



MPA Port Master Capt Chong Jia Chyuan (second row, sixth from left) and his team thanked the crew of *MV Helios Leader* for their exceptional bravery at sea during the search and rescue operation on 7 November 2022.



Capt Anil Choudhary of the *MV Helios Leader* (right) receiving a letter of commendation from MPA Port Master Capt. Chong Jia Chyuan.

# 05

- A key area of focus under the Sea Transport Industry Transformation Map (ITM) 2025 is to equip the existing maritime workforce with new skills and continue building a steady pipeline of talent to join the sector as the industry transforms.

Initiatives such as Job Redesign, SailMAP, and building a talent pipeline through scholarships, ensure a stronger maritime workforce for the future.



## STRENGTHENING AND BUILDING THE MARITIME WORKFORCE

# Strengthening and Building the Maritime Workforce

## Sea Transport Industry Transformation Map 2025

At Singapore Maritime Week in April 2022, Deputy Prime Minister and Coordinating Minister for Economic Policies, Mr Heng Swee Keat, launched the refreshed Sea Transport Industry Transformation Map (ITM) 2025. The updated plan enhanced strategies to address the challenges and seize opportunities arising from the COVID-19 pandemic and shifts in global supply chains.

To spearhead the transformation efforts outlined in the Sea Transport ITM 2025, the Maritime Industry Tripartite Transformation Committee (MITTC) was also

established in April 2022, co-chaired by the Chairman of the Singapore Maritime Foundation (SMF) and the MPA Chief Executive. A key follow-up from the MITTC was the formation of the Alliance for Future Maritime Talent (AFMT) in September 2022, which saw MPA partner the Singapore Maritime Foundation (SMF), Pacific International Lines (PIL), Pacific Carriers Limited (PCL), and the American Bureau of Shipping (ABS) to equip the maritime workforce with new skills as the industry transforms.

**Maritime Singapore - Global Maritime Hub for Connectivity, Innovation, Talent**

The Sea Transport sector connects Singapore to the world through our Global Hub Port and International Maritime Centre. Supported by an extensive range of maritime services and technology companies, the sector is a vital enabler for trade and economic activities in Singapore, and for sectors such as manufacturing, wholesale trade and logistics.

**A. Ensure Relevance and Resilience of MaritimeSG as Key Node in Global Supply Chains**

- Future-proof our port's capacity and capabilities through enhancing physical and digital connectivity and building a future-ready sustainable port of choice
- Strengthen the International Maritime Centre by growing a comprehensive range of maritime services to seize opportunities of the future, and partnering companies on key projects in growth areas such as sustainability and digitalisation
- Support port automation and technology adoption, to increase productivity of port operations

**B. Build a Vibrant Innovation Ecosystem and Actively Develop New Growth Areas**

- Grow Singapore into a leading MarineTech Hub by creating a vibrant innovation ecosystem for MarineTech start-ups and companies by bringing together demand drivers, solution providers, and funding
- Deepen maritime R&D capabilities and strengthen R&D translation in key areas, such as Smart Port, Smart Shipping and Green Technologies

**C. Support Maritime SMEs and Start-Ups to Grow into Global Champions**

- Build digital capabilities of maritime SMEs and start-ups
- Build capabilities to venture overseas, work closely with key stakeholders to leverage their international networks

**D. Develop a Future-Ready Maritime Workforce Equipped with Global Skillsets**

- Further strengthen local talent pipelines by attracting fresh graduates and facilitating mid-career conversions, including sea-to-shore career progressions
- Redesign job roles & reskill workers to support a more digitalised, high-tech and sustainable maritime industry, and aim to create 1,000 good jobs for locals
- Promote the maritime sector as an attractive and dynamic sector for jobseekers

The refreshed Sea Transport Industry Transformation Map aims to address the challenges and seize new opportunities from the COVID-19 pandemic and shifts in global supply chains.

## Job Redesign

In August 2022, SMF partnered PIL and PCL to enhance the attractiveness of maritime jobs through a Job Redesign (JR) pilot.

The JR pilot involved key roles in maritime, such as technical superintendents and vessel operators. The pilot aimed to profile the feasibility and benefits of JR in maritime and raise the overall attractiveness

of these jobs. In addition, it aimed to scale up adoption of job redesign across industry through the development of a workforce transformation guide. Using the JR pilot as a reference point, other maritime companies could also draw valuable lessons and take their first step in the job redesign process by tapping into relevant programmes across various agencies.

## MaritimeONE and Tripartite Maritime Scholarships

MPA works closely with partners to offer scholarships to encourage students to join the maritime industry. In 2022, 54 MaritimeONE and 12 Tripartite Maritime Scholarships (TMSS) worth S\$2.7 million in total were presented to tertiary students. MPA also runs the Global Internship Award (GIA), consisting of a

12-week internship with a maritime company and an overseas attachment for students to gain more on the job exposure and prepare them for a maritime career. More than 300 undergraduates have benefitted from the programme in the last decade.



Recipients of the 2022 MaritimeONE and TMSS Scholarships pose for a group photo with Mr Chee Hong Tat, Senior Minister of State for Finance and Minister of State for Transport (second row, third from right) at the MaritimeONE and TMSS Award Ceremony on 8 November 2022. Photo credit: Singapore Maritime Foundation

# Strengthening and Building the Maritime Workforce

## SailMAP

Seafaring experience puts seafarers in good stead when taking on shore-based positions in the maritime sector. To support local seafarers in their seafaring training and career progression, MPA and our tripartite partners set aside S\$12.5 million for the Sail Milestone Achievement Programme (SailMAP). Launched in June 2022, SailMAP provides each seafarer with up to S\$50,000 when they attain key career milestones, including a sign-on bonus of S\$10,000 when they sign on their first vessel as a

Certificate of Competency (COC) Class 3 (deck officer) or 5 (marine engineer) holders.

SailMAP also provides training allowances to help support seafarers' incomes when they are not sailing. This allows seafarers to focus on upgrading their seafaring skills and knowledge during their shore-based periods. 41 seafarers have benefitted from the SailMAP programme since its launch.



SailMAP recipients at the SRS Forum held in November 2022.

## Career Conversion Programme

To provide maritime and non-maritime mid-careerists opportunities to take on roles in port operations and services, shipping, and maritime services, MPA partnered with Workforce Singapore (WSG) to roll out the enhanced Career Conversion Programme (CCP) for Sea Transport. Since its launch in 2018, close to 220 mid-career jobseekers from around 25 companies have benefitted from the CCP.

## MPA Endowed Chair Professorship

To further enhance maritime education, MPA also finalised the establishment of the MPA Endowed Chair Professorship in Maritime Management with the Nanyang Technological University. The appointment of a full-time faculty will drive the development of pedagogy and enhance quality of academic modules in maritime studies.

## Maritime Leadership Programme

The second run of the Maritime Leadership Programme (MLP) was conducted in September 2022, which included an overseas visit to the Port of Rotterdam. Since its launch in 2021, more than 40 maritime professionals have attended the MLP.

MPA also organised the inaugural Maritime Manpower Forum (MMF) in April 2022, an event that brought together corporate leaders and human capital champions to discuss trends, challenges, and opportunities in the maritime industry. MMF 2022 saw a full capacity of 150 attendees and was streamed 'live' to an international audience.



Cohort of the Maritime Leaders Programme was rolled out in September 2022 to groom future leaders.



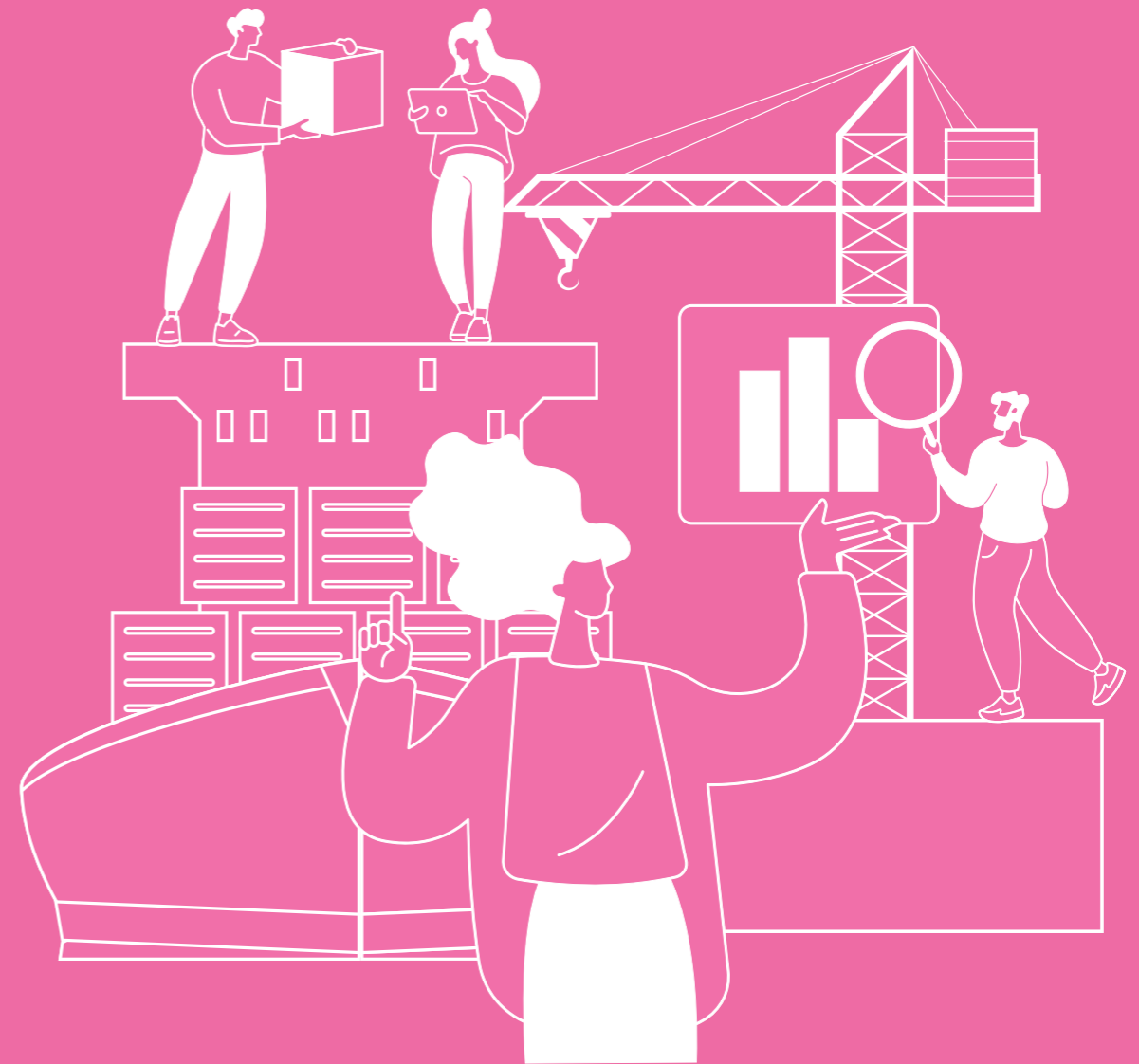
Participants posing for a photo at the Maritime Manpower Forum.

# 06

## ENHANCING THE VIBRANCY OF THE MARITIME SECTOR

- As a major global hub port that is home to over 5,000 maritime companies, MPA works closely with the industry to build a vibrant and attractive maritime ecosystem.

MPA has remained agile and responsive to industry needs by adopting new ways to promote Singapore as an international maritime centre and a gateway to the region, complemented by a transparent and well-respected legal system, political and economic stability, and a highly skilled and culturally adaptive workforce.



## Enhancing the Vibrancy of the Maritime Sector



Singapore retained its top spots as the world's maritime centre in the Xinhua-Baltic International Shipping Centre Development Index and in the Menon Economics-DNV Leading Maritime Cities Report.

### Building an International Maritime Centre



Singapore is home to more than 170 international shipping groups and other maritime players in finance, insurance, shipbroking, law, and arbitration. It is also named the world's top maritime centre in the Xinhua-Baltic International Shipping Centre Development Index for the ninth consecutive year and recognised as the top leading maritime cities of the world in the Menon Economics-DNV Leading Maritime Cities Report.

Singapore continues to remain attractive as an Asian base for shipowners and operators, with 2022 seeing the establishment and expansion of some 30 companies here. Notable examples include the expansion of Olam's shipping entity, as well as Taylor Maritime, a ship management company, which transferred its shipping headquarters from Hong Kong to Singapore in 2022.

Companies across diverse sectors such as container, dry bulk and tanker have also set up their presence here over the years.

MPA also works closely with shipping companies already rooted in Singapore to deepen their operations here. In 2022, Singapore-based Pacific International Lines (PIL) opened its Centre for Maritime Efficiency to enhance the operational efficiency and reduce the carbon footprint of its entire fleet.

# Enhancing the Vibrancy of the Maritime Sector

## Entrenching Digitalisation and Decarbonisation Projects

In 2022, MPA and CMA CGM group signed a Memorandum of Understanding (MoU) to initiate co-development of capabilities and solutions across maritime decarbonisation, digitalisation, and innovation. As a first step, CMA CGM established the Asia-Pacific office of their start-up incubator and accelerator, ZEBOX, in Singapore.

With Singapore's pro-business environment and focus on sustainability, it remains an attractive location for maritime companies to better implement their decarbonisation agenda. In 2022, One Network Express set up its new Green Office, while Swire Shipping and Swire Bulk established a decarbonisation desk in Singapore.



Deputy Prime Minister and Coordinating Minister for Economic Policies Mr Heng Swee Keat (fourth from right) visits the ONE office with MPA senior management.

## Positioning Singapore as a Green Financing Hub

Singapore is home to some 20 international banks with ship finance portfolios. This network is complemented by a diverse suite of both traditional and innovative financing solutions for the shipping industry, including maritime leasing and listing opportunities on the Singapore Exchange. In 2022, MPA welcomed the Fearnley Securities office as well as the Société Générale's shipping desk in Singapore.

During Singapore Maritime Week (SMW) 2022, MPA organised a Ship Finance Roundtable bringing together key stakeholders and partners to discuss trends in green financing and develop solutions to support and catalyse the industry's transformation. With several decarbonisation projects on the horizon and MPA's announcement of \$300 million to co-fund such projects, green financing is key to accelerate developments.



The Ship Finance Roundtable brought stakeholders together to discuss the development of a green financing ecosystem for the maritime sector.

## Raising the Profile of Maritime Services

Over the years, Singapore has grown to become a vibrant marketplace that not only represents shipping interests, but also welcomes international commodity trading players. Many of these global commodity traders have established shipping operations in Singapore.

The presence of these international shipping and commodity trading groups, coupled with Singapore's leading position as a global hub port and major bunkering hub, bolstered the maritime sector with a range of support resources ranging from commercial to technical services. In recent years, Singapore has built up a comprehensive pool of maritime service providers in domains such as shipbroking, marine insurance, maritime law and arbitration, and ship financing.

There are 13 Protection and Indemnity (P&I) clubs globally that cover liability and insurance for the maritime industry. In 2022, the Swedish P&I Club set up a branch in Singapore, marking the 11<sup>th</sup> P&I Club to set up an office in Singapore. The clubs in Singapore have been steadily increasing their offerings to cover a full suite of P&I insurance services including claims, underwriting, and loss prevention services.

To raise the profile of maritime services in Singapore, MPA organised the inaugural Maritime Services Leaders Forum during SMW 2022, bringing together various experts to discuss key challenges and opportunities faced by the maritime service ecosystem, including finance, dispute resolution, and risk management.



The inaugural Maritime Services Leaders Forum brought together officials and stakeholders from the finance, legal, insurance and shipbroking sectors to discuss challenges in the maritime sector.

## Helping Maritime Businesses Grow

To further Singapore's position as an international maritime centre, MPA administers the Maritime Sector Incentive (MSI) scheme to help shipping businesses grow in Singapore.

The MSI grants tax concessions to qualifying companies that build and expand their maritime operations in Singapore. Qualifying shipping companies also enjoy tax exemption on qualifying payments for ship and container financing.

MPA is also the administrator of the Maritime Cluster Fund (MCF), which supports the growth of Singapore's maritime cluster through facilitating upskilling, reskilling, and transformation efforts through targeted support measures. In 2022, more than 3,300 locals benefitted from the MCF that co-funded their training and upskilling programmes. Since its launch in 2013, the MCF has supported more than 70 digitalisation projects.



# 07

## FORGING COLLABORATIONS AND STRENGTHENING PARTNERSHIPS

- The Port of Singapore lies at the heart of the global supply chain, with a third of the global container trade and a quarter of the global seaborne oil trade funnelled through the Straits of Malacca and Singapore every year.

MPA works with a diverse range of stakeholders — including governments and international organisations, industry players, unions, and the public — to promote navigational safety, protect the marine environment, and uphold Singapore as an international maritime centre.



# Forging Collaborations, Strengthening Partnerships

## Singapore Maritime Week 2022: Transformation for Growth

MPA has been organising the Singapore Maritime Week (SMW) since 2006. As a leading maritime forum, SMW provides the industry and its stakeholders with a platform to discuss issues, identify opportunities, and collectively chart the way forward for the international maritime community.

SMW 2022 was held in April, marking its 16<sup>th</sup> run. Themed "Transformation for Growth", SMW 2022 saw over 10,000 participants, and over 5,800 physical participants attending 24 events that were centred on the key themes of digitalisation, decarbonisation, and talent and maritime services.

Deputy Prime Minister and Coordinating Minister for Economic Policies, Mr Heng Swee Keat, delivered the keynote address covering global and regional developments in the maritime industry. SMW 2022 also introduced two new key events, the Maritime Services Leaders Forum and the Maritime Manpower Forum.

SMW will continue to raise Singapore's profile as a major global hub port, a leading international maritime centre, and a thought leader on key maritime issues and transformation.



Deputy Prime Minister and Coordinating Minister for Economic Policies Heng Swee Keat delivering the keynote address at Singapore Maritime Week 2022.



Opening ceremony of the Singapore Maritime Week 2022.

## International Safety@Sea Week

The 2022 edition of the International Safety@Sea Week was opened by Mr Chee Hong Tat, Senior Minister of State for Transport and Senior Minister of State for Finance. Themed "Riding the Waves for Maritime Safety", the conference included the Maritime Cybersecurity Dialogue, Ferry Rescue Exercise Observer Programme, and industry visits to the Centre of Excellence in Maritime Safety and Wärtsilä Expertise Centre.

The conference featured 21 industry thought leaders and representatives from the International Maritime Organization (IMO), International Chamber of Shipping (ICS), World Maritime University (WMU), and The Nautical Institute, several of whom attended the event in person.

Key topics such as "Dovetailing Seafarers' Health and Wellbeing with a Good Safety Culture" and "Proactive Use of Data for Maritime Safety" were covered by industry experts.

More than 1,500 attendees from 27 countries gathered for the conference. Among those in attendance were also key stakeholders from the Singapore Maritime Officers' Union, Singapore Organisation of Seamen, Baltic and International Maritime Council (BIMCO), World Shipping Council, RightShip, Asian Shipowners' Association, The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) Information Sharing Centre, and the US Coast Guard.



The panel at the opening session of the International Safety@Sea conference. From left to right: Mr Michael Phoon, Deputy Chairman, National Maritime Safety at Sea Council, Singapore; Ms Quah Ley Hoon, then Chief Executive, MPA; Dato' Hj Baharin bin Dato' Abdul Hamid, then Director-General, Marine Department, Malaysia; Captain Andre LeGoubin, President, Nautical Institute; Ms Caroline Yang, Vice-Chair, International Chamber of Shipping (not pictured: Mr Arif Toha, Director-General of Sea Transportation, Indonesia).

# Forging Collaborations, Strengthening Partnerships

## MarineTech@SMW 2022

Previously known as the Singapore Maritime Technology Conference, the MarineTech@SMW is an annual international maritime technology conference and exhibition organised by MPA.



Mr Kenneth Lim, Assistant Chief Executive (Industry & Transformation), at the MarineTech@SMW 2022.

MarineTech@SMW 2022 saw the launch of new conferences, such as the International Maritime and Port Technology and Development Conference, the International Conference on Maritime Autonomous Surface Ships, and the Maritime Software Developers Live TV. Over 1,000 participants attended the events.

The conference also witnessed the signing of several memoranda of understanding (MoU). MPA signed two MoUs with Jurong Port and the Singapore Shipping Association and its industry partners on the Maritime Cybersecurity Roundtable Initiative. Three additional industry partnership MoUs were also signed:

- Singapore Polytechnic and MolyWorks on accelerating the adoption of metal additive manufacturing and metal recycling technology for the maritime and offshore industry;
- Skyports and Wilhelmsen Port Services on maritime ship-to-shore delivery services in Singapore; and
- Skyports and Thome Ship Management on ship-to-shore drone deliveries.

## Singapore International Bunkering Conference and Exhibition 2022

The world's largest marine fuel forum, the Singapore International Bunkering Conference and Exhibition (SIBCON) returned for its 22<sup>nd</sup> edition. Held from 4 to 7 October 2022, the biennial event gathered prominent industry players and thought leaders across the global bunkering community to discuss pertinent issues such as trade and supply chain developments, the evolving marine fuel industry, digitalisation for bunkering, and the push for decarbonisation.

Themed 'Driving the Transformation of Marine Fuels', SIBCON 2022 welcomed 1,800 attendees from over 45 countries. Senior Minister of State for Transport and Senior Minister of State for Finance, Mr Chee Hong Tat, gave the opening address, while Senior Parliamentary Secretary for Transport, Mr Baey Yam Keng, officiated the opening of the SIBCON exhibition.



Senior Parliamentary Secretary for Transport Mr Baey Yam Keng officiating the opening of SIBCON 2022.

## Marine Fuel Forum 2022

The Marine Fuel Forum is a platform for the bunker industry to gather and discuss key issues such as digitalisation, future fuels, and decarbonisation. Formerly known as the Bunker Forum, the annual event resumed after a two-year hiatus due to the COVID-19 pandemic.

Held in May 2022, the theme was "Delving into the Present and Future of Marine Fuel bunkering in Singapore". About 240 representatives from 77 companies and organisations participated in the closed-door forum.

## Harbour Craft Forum 2022

Held on 29 July 2022, the theme for the Harbour Craft Forum 2022 was "Transformation for Growth". The event focused on four main topics — safety, decarbonisation, digitalisation, and manpower — and how these key issues and trends impact the harbour craft community.

Several presentations and a panel discussion on topics ranging from electrification of harbour craft to enhancing safety were discussed. 2022 also saw its highest turnout to date of 162 attendees.

## Launch of Raffles Lighthouse Public Tours

Raffles Lighthouse, Singapore's second oldest lighthouse in Pulau Satumu, was opened to the public in January 2022. Visitors can take the ferry to the island on a guided tour to learn more about lighthouse operations and its 167 years of heritage.

The public tours remain hugely popular, seeing almost 2,000 visitors in 2022.



Guest-of-Honour, Ms Caroline Yang, Chief Executive, Hong Lam Pte Ltd giving an opening address of the Marine Fuel Forum 2022.

Industry players and stakeholders gathered to discuss key issues at the Marine Fuel Forum.



The Harbour Craft Forum 2022 covered trends and issues pertaining to the harbour craft community.



Members of the public on a guided tour to Raffles Lighthouse.

# Forging Collaborations, Strengthening Partnerships

## Championing a Youth-led Maritime Movement

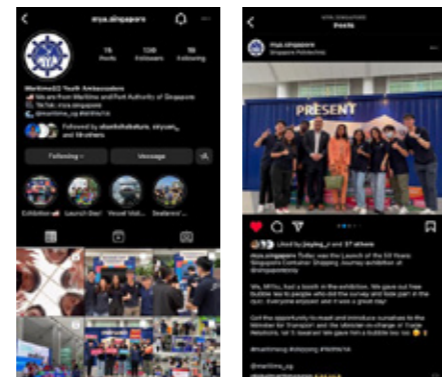
In May 2022, MPA appointed 18 students from local institutes of higher learning (IHLs) to form the inaugural batch of MaritimeSG Youth Ambassadors (MYAs).

The MYA programme was introduced to provide youth leaders below the age of 30 with a platform to raise awareness for Maritime Singapore and promote a career in the industry among their peers.



Nurturing the next generation of maritime leaders through the Maritime Youth Ambassadors Programme.

The MYAs have organised events such as the Seafarers Day Out in July 2022 which gathered more than 50 local youths and international seafarers to understand more about the maritime industry and the important role seafarers play in keeping global supply chains moving. The youth ambassadors have also promoted Maritime Singapore through producing and disseminating creative videos and posts on their social media channels.



Maritime Youth Ambassadors sharing their activities on social media.



The inaugural batch of Maritime Youth Ambassadors.

## Commemorating 50 Years of Singapore's Container Shipping Journey

To commemorate the 50<sup>th</sup> anniversary of Singapore's container shipping journey, MPA organised a roving exhibition to five IHLs from August to September 2022. The exhibition featured Past, Present and Future zones, taking students through Singapore's development as a global hub port and vibrant international maritime centre. It also paid tribute to our pioneers, unions, and industry professionals, and highlighted exciting career opportunities in various traditional and emerging fields in the maritime sector. More than 30 maritime companies participated in the exhibition, where they had the opportunity to share more about their work as part of a recruitment drive to attract talent. Together, the exhibition and industry talks attracted close to 9,000 students over the two-month period.



Senior Minister of State for Transport and Senior Minister of State for Finance Mr Chee Hong Tat (ninth from left) with students and staff at the Container Exhibition at Nanyang Technological University.



Minister for Transport and Minister-in-charge of Trade Relations Mr S Iswaran (second from left) with the Maritime Youth Ambassadors at the launch of the Container Exhibition at Singapore Polytechnic.

## Forging Collaborative Relationships with Like-minded International Partners

As Singapore's national maritime representative, MPA participates actively and assumes leadership positions in key international bodies such as the International Maritime Organization (IMO), the International Hydrographic Organization (IHO), the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and the Port Authorities Roundtable (PAR), among others.

# Forging Collaborations, Strengthening Partnerships

## Re-elected to the IMO Council for 2022-2023 Biennium

Singapore received a resounding vote of confidence when we were re-elected to the IMO Council for the 15<sup>th</sup> consecutive term in December 2021. As an IMO Council member since 1993, Singapore has made significant contributions to the efforts of the international maritime community in enhancing navigational safety and promoting efficient and sustainable shipping. Throughout the ongoing pandemic, Singapore has remained steadfast in continuing to deliver maritime training to fellow maritime nations under the IMO-Singapore Third Country Training Programme, as well as flagship programmes run virtually by the MPA Academy (MPAA). Under the enhanced five-year technical co-operation and training package launched in 2018, Singapore continues to commit US\$ 2.9 million over the next two years to provide fellowships, scholarships, and workshops to enhance human resource development for fellow IMO member States.



The Singapore delegation at the 128<sup>th</sup> Session of the IMO Council in London, November 2022.



IMO Secretary-General Mr Kitack Lim delivered his opening remarks at the Singapore-IMO Future of Shipping Conference: Decarbonisation at SMW 2022.

Following the IMO-Singapore Future of Shipping webinars in 2020 and the IMO-Singapore Future of Shipping Conference 2021, Singapore worked with the IMO to co-organise the Future of Shipping Conference: Decarbonisation, on 6 April 2022 as part of SMW.

The conference brought stakeholders together to identify possible solutions along the two pillars of “opportunities” and “gaps” in the maritime and energy value chains, covering topics such as R&D, policy, capacity building, and stakeholder collaboration. The

hybrid conference was attended by 700 delegates representing maritime and port authorities, international organisations, industry and academia from Asia, Africa, Americas, Europe, and Oceania. Following discussions at the conference, Singapore submitted a paper co-sponsored by 12 member States and the industry to the 127<sup>th</sup> Session of the IMO Council in July 2022. The paper summarised key insights gleaned from the conference and recommended concrete and inclusive steps to the challenges and opportunities of maritime decarbonisation.

## Enhancing Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore

The Co-operative Mechanism on Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore (SOMS), first launched in 2007, is a key platform for the littoral States of Indonesia, Malaysia, and Singapore to engage user States and the shipping industry on issues relating to the SOMS. It was established within the framework of the Tripartite Technical Experts Group on the Safety of Navigation in the SOMS (TTEG), and consists of three interconnected and complementary components, namely, the (i) Co-operation Forum (CF); (ii) Project Co-ordination Committee (PCC); and (iii) Aids to Navigation Fund (ANF).

In 2022, MPA participated in the 13<sup>th</sup> CF, 45<sup>th</sup> TTEG and 13<sup>th</sup> PCC meetings in Malaysia, discussing projects and initiatives to enhance navigational safety and marine environmental protection in the SOMS. MPA also participated in the 26<sup>th</sup> and 27<sup>th</sup> ANF Committee meetings in Indonesia, where stakeholders discussed work programmes for the provision and maintenance of marine navigational aids in the SOMS, among others.



Heads of the Singapore, Malaysia and Indonesia delegation share a light-hearted moment at the Tripartite Technical Experts Forum.



The Singapore delegation in Kuala Lumpur for the Cooperation Forum and Tripartite Technical Experts Forum.

# Forging Collaborations, Strengthening Partnerships

## Protecting Global Trade, Seafarers and Ships

Singapore remains committed to promoting and enhancing cooperation to combat piracy and armed robbery against ships. Singapore is a founding member and one of the 21 Contracting Parties of the Regional Co-operation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP). The ReCAAP Information Sharing Centre (ISC) is hosted in Singapore.

In 2022, Singapore participated in the 16<sup>th</sup> ReCAAP Governing Council meeting held virtually and discussed how ReCAAP ISC could further contribute to ensure our waters remain safe and open for international trade. Singapore also participated and supported the various capacity building workshops organised by the ReCAAP ISC.

## Supporting Effective and Integrated Marine Geospatial Information

MPA hosted the inaugural International Seminar on United Nations Global Geospatial Information Management, which took place 10 to 12 May 2022.

Themed 'Effective and Integrated Marine Geospatial Information Management', this hybrid seminar was jointly organised by MPA, the United Nations Global Geospatial Information Management Section, Statistics Division, Department of Economic and Social Affairs, United Nations Working Group on Marine Geospatial Information, Marine Spatial Data Infrastructure Working Group of the International Hydrographic Organization (IHO), and Marine Domain Working Group of the Open Geospatial Consortium (OGC).

Leading international experts from academic and research institutions in the field of marine geospatial information shared strategies to address key global issues such as climate change, disaster risk management, emergency response, as well as policy and legal frameworks.

The International Seminar was also held alongside the Third Expert Meeting of the United Nations Working Group on Marine Geospatial Information, the 13<sup>th</sup> Meeting of the Working Group on Marine Spatial Data Infrastructure of the International Hydrographic Organization, and the 2022 Meeting of the Marine Domain Working Group of the Open Geospatial Consortium, held from 9 to 13 May 2022. These meetings provided a forum for dialogue and coordination among Member States, the United Nations system, and international organisations such as the IHO and OGC, with a view to enhance regional and global cooperation, as well as advocate for and improve the availability and accessibility of marine geospatial information.



MPA Chief Hydrographer Mr Thai Low Ying-Huang making the closing statement at the inaugural International Seminar on United Nations Global Geospatial Information Management.

## Fostering Closer Collaborations amongst Port Authorities

The Port Authorities Roundtable (PAR) is an annual forum for port authorities to exchange best practices, discuss issues of common interest, and build mutually beneficial collaborations amongst stakeholders. MPA initiated the PAR in 2015 and continues to serve as its Secretariat.

In 2022, the theme of the 7<sup>th</sup> Port Authorities Roundtable was "Reimagining a New Era of Trade Together", with 14 port authorities from Asia, Europe, the Middle East, and the USA in attendance. The discussions focused on

four areas — disruption, digitalisation, decarbonisation, and diversification — as port authorities examined key challenges faced by the maritime sector and new approaches that ports have adopted in response to these changes. MPA's then Chief Executive, Ms Quah Ley Hoon, and Assistant Chief Executive (Ops-Tech), Mr David Foo, delivered a presentation titled "Building a Resilient and Sustainable Future-ready Maritime Singapore", which focused on MPA's continued efforts in digitalisation and decarbonisation and suggested areas of collaboration with like-minded ports.



Then Chief Executive Ms Quah Ley Hoon (front row, fifth from right) at the seventh Port Authorities Roundtable.

## Global Leader in Maritime Training Enhanced Technical Co-operation

The MPA Academy (MPAA) is the training arm of MPA, providing global maritime leadership and technical training with the aim to share domain knowledge and experiences. Since 1998, MPAA has been working with the IMO under the Singapore-IMO Third Country Training Programme to actively support IMO's work in capacity building of IMO member States.

Although several in-person activities were paused over the past two years, MPAA continued to conduct online training courses in lieu of study visits. MPAA also continued to sponsor scholarships students from the World Maritime University (WMU) and IMO International Maritime Law Institute (IMLI). A total of nine scholarships were awarded.

# Forging Collaborations, Strengthening Partnerships

## Single Window for Facilitation of Trade (SWiFT) Project

In 2022, MPAA advanced the Single Window for Facilitation of Trade (SWiFT) Project. Working in partnership with IMO, SWiFT aims to help developing countries implement the Maritime Single Window (MSW).

This system consolidates the electronic submission of all information required by various government agencies

when a ship calls at port on a single portal. This helps to streamline port clearance and improve efficiency. Through SWiFT, Singapore hopes to include developing countries in promoting maritime digitalisation. Angola has been chosen as the pilot country to implement the MSW platform which is on track to be completed in the third quarter of 2023.

## Collaborations with Institutions and Centres of Excellence

One of MPAA's key objectives is to strengthen international linkages and further our collaborations with our counterparts and other centres of excellence. On 9 February 2022, MPA and the Directorate General of Sea Transportation (DGST), Ministry of Transportation, Republic of Indonesia, signed a MoU to extend the co-operation on human resources development of the government officers in the maritime field for another three years.

This extension marked 17 years of strong bilateral cooperation between MPA and DGST on maritime training. Over the last 17 years, close to 100 programmes and workshops have been organised for about 1,600 officials under the MoU. The areas of training include conventions under the IMO that contribute to the enhancement of navigational safety and marine environmental protection, as well as maritime leadership development.

An MoU between MPAA and the International Chamber of Shipping (ICS) was inked on 4 April 2022 to support the establishment of ICS Academy in Singapore and



Dean, MPA Academy Mr Tan Suan Jow (second from left) and ICS Secretary-General Mr Guy Platten (third from left) signing the MoU to support the establishment of the ICS Academy in Singapore.

develop suitable training and professional development programmes for shipping professionals. Mr Tan Suan Jow, Dean of MPAA and Mr Guy Platten, General Secretary of ICS, signed the MoU at the Opening Ceremony of the Maritime Transformation and Innovation Programme (MTIP).

MPAA also hosted World Maritime University (WMU) Masters students from its Port Management and Shipping Management and Logistics courses. Held from 10 to 14 October 2022, this visit marks the largest delegation MPAA has hosted to date, with 30 students from 20 countries present. This visit were part of the students' field studies to promote international exchange and transfer of maritime ideas and knowledge. This partnership further strengthened both organisations' work in global maritime leadership development, training, and capacity building.



Mr Tan Suan Jow, Dean, MPA Academy, addressing students from the World Maritime University.

From 9 to 11 November 2022, MPA hosted the Regional Workshop on Incident Response and Costs Recovery. This was part of the Global Initiative for Southeast Asia (GI-SEA) Project. Funded by International Oil Pollution Compensation Fund and IMO, the event saw participation from the International Group of P&I Associations and the International Tanker Owners Pollution Federation (ITOPF) and focused on incident response. It was attended by government representatives from Brunei, Cambodia, Laos, Malaysia, the Philippines, Thailand, Timor-Leste, Vietnam, and Singapore.

On 16 and 17 November 2022, MPAA co-hosted the Marine Environment Protection of the South-East Asian Seas Regional Technology Conference in Singapore with MEPSEAS and IMO. The event was a follow-up on the Third High-Level Regional Meeting of the MEPSEAS

Project to provide a platform to present, share and discuss the latest available technologies and solutions for ballast water management, antifouling systems, and ship-waste management. Over 30 MEPSEAS members participated in the conference.



Marine Environment Protection of the South-East Asian Seas (MEPSEAS) delegates at the Regional Technology Conference, November 2022.

## MPAA Flagship Programmes and the Inaugural Maritime Transformation and Innovation Programme

This year marked the return to in-person programmes since the pandemic, starting with a new flagship programme, the Maritime Transformation and Innovation Programme (MTIP), which ran from 4 to 8 April 2022.

MTIP is the latest addition to MPAA's flagship programmes. Attended by 20 maritime leaders from 15 countries and the IMO, the programme was specially designed for maritime or senior port officers overseeing technology, innovation and change management.

Participants had the opportunity to attend Singapore Maritime Week 2022 and key events such as the

MarineTech Conference and Exhibition and the Singapore Maritime Lecture. With a focus on sharing Singapore's experience in driving innovation and transformation, MTIP aims to provide a platform for participants to exchange ideas and best practices with industry practitioners and peers worldwide, gain insights into effective transformation and change management strategies, and make use of unparalleled networking opportunities.

Apart from MTIP, MPAA also conducted the 12<sup>th</sup> Maritime Public Leaders' Programme and the 8<sup>th</sup> Port Management Programme, both of which were attended by participants from over 20 countries.

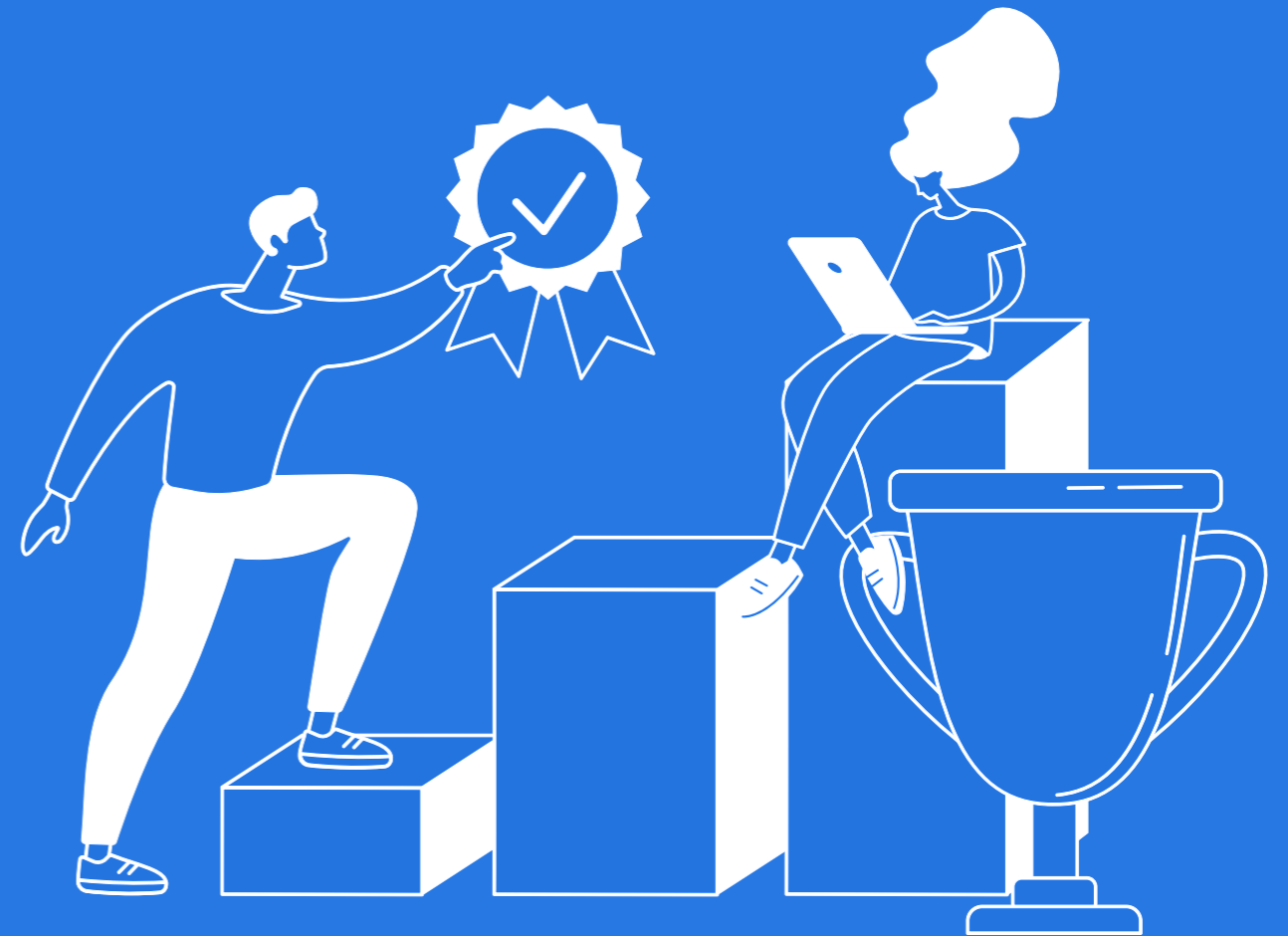


Maritime Transformation and Innovation Programme (MTIP) participants visiting MarineTech start-ups at PIER71.

# 08

- MPA champions the values of Forward thinking, Integrity, Respect, Service Excellence, and Teamwork — or FIRST in short — to develop our people to their fullest potential.

These values include working together to maintain sound financial and governance policies, finding innovative solutions to streamline processes, and upholding organisational excellence.



## UPHOLDING ORGANISATIONAL EXCELLENCE



# Upholding Organisational Excellence

## OneMPA MPA FIRST Values

Our values — Forward thinking, Integrity, Respect, Service Excellence and Teamwork (collectively the FIRST values) — guide behaviours and practices in MPA, as well as shape decision-making to foster a cohesive and enabling workplace culture.

The FIRST values are celebrated annually during MPA

Values Week. Held from 17 to 22 January 2022 in a hybrid format, Values Week saw the official launch of MPA's Innovation Challenge, a corporate governance e-briefing, mini-charity flea market, sharing on the Sea Transport Industry Transformation Map, and ended with an annual award presentation of our FIRST Champions and the FIRST Team Award.



FIRST Champion Mr Putra Mohammad Danish (left) and then Chief Executive Ms Quah Ley Hoon at Values Week 2022.

## MPA's FIRST Champions

19 officers were recognised as FIRST Champions at an award presentation ceremony held during Values Week 2022. They were nominated by their peers for being great role models who inspire others to also exemplify the FIRST values.

## Innovation Challenge: Solutions from the Ground Up

Values Week 2022 also saw the launch of the MPA-wide Innovation Challenge to encourage staff to take a ground up and design thinking approach to address organisational challenges.

Participants were organised into teams and brought through a structured innovation process that began with identifying problems and user needs, and finally brainstorming practical solutions.

For the inaugural edition, teams were asked to develop solutions to strengthen MPA's proposition as an employer of choice. The four salient topics surfaced were "Reimagining Fair Work", "Career Development & Retaining Talent", "Ensuring Clear Roles & Accountability" and "Reducing Red Tape". The four teams presented their findings and recommendations at MPA's Townhall in September 2022

Three officers, Alton Chan from Operations & Marine Services Division, Putra Mohammad Danish from Information Technology Division, and Sabrina Chiok from the Transformation Office, were recognised as 2021's Overall FIRST Champions. An additional eleven teams were also given the FIRST Team Award.



Innovation Challenge 2022 teams brainstorming solutions to workplace challenges.

# Upholding Organisational Excellence

## TalentMPA Developing officers to Their Fullest Potential

MPA remains committed to develop our people to their fullest potential through initiatives such as the Change Leaders Programme, structured job rotations, and half-yearly career development forums with MPA's senior management.

To support Heads of Departments (HoDs) in building and leading their teams effectively, a HoD Leadership Programme was held from October 2021 to February 2022. A total of 64 HoDs and managers with supervisory roles attended four workshops aimed at deepening their supervisory and leadership skills.



MPA officers attending course to develop their supervisory and leadership skills.

## Change Leaders Programme

The Change Leaders Programme (CLP) is an organisation-wide exercise to equip a core of middle managers to navigate complexities and drive complex transformation initiatives within MPA and the maritime industry.

In 2022, 27 Change Leaders were appointed and mentored by Change Leaders from Phase One of the exercise. To date, the Change Leaders have participated in 14 projects involving complex issues of strategic importance to MPA.



The Change Leaders Programme 2.0 aims to drive organisational transformation and address complex issues of strategic importance to MPA.

## Collaboration with Partners

MPA worked with our Union, the Amalgamated Union of Statutory Board Employees (AUSBE), to implement the Port Operations Control Centre deployment framework in April 2022. This initiative aims to bridge the skills and knowledge gaps of non-mariner watch-keeping officers, equipping them with necessary competencies to better perform their role as watch managers.

In 2022, four senior watch supervisors were promoted to assistant watch managers after successfully completing the programme.

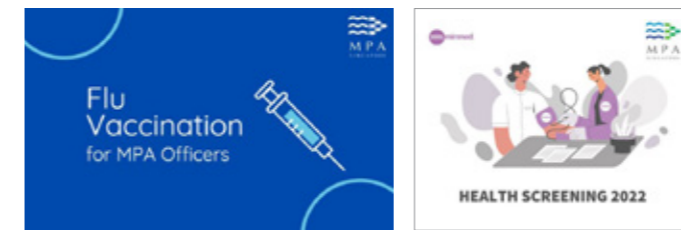


MPA implemented the Port Operations Control Centre (POCC) deployment framework for watch-keeping officers with no seafaring experience to gain the necessary competencies to be watch managers.

## Workforce Health Resilience

In line with the easing of the various COVID community measures in April 2022, MPA adopted a hybrid work arrangement to reduce our officers' exposure during peak commute times and continued to promote flexible work arrangements since. MPA also implemented a smart casual dress code in March 2022 to enable officers to work more comfortably.

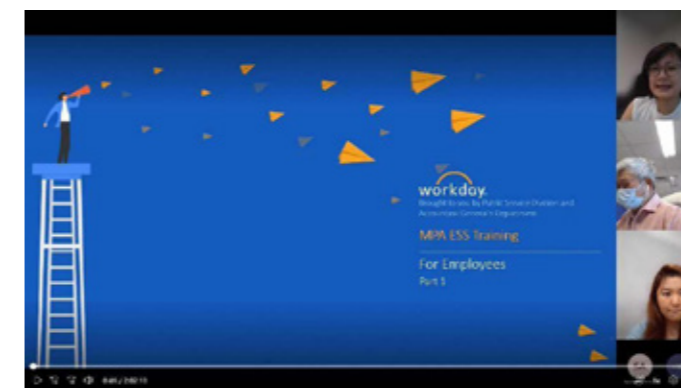
To support our officers' overall health and resilience, MPA provided complimentary onsite and offsite health screenings and flu vaccinations.



Complimentary onsite and offsite health screenings and flu vaccinations were offered to MPA staff to support their health and overall well-being.

## DigitalMPA

As part of a public sector-wide transition, MPA onboarded its officers to the Workday system in June 2022, through system and data migration of two major enterprise resource planning systems, human resource and finance, and developed a new Enterprise Data Exchange to facilitate data exchange between MPA systems and Workday. Initiated by the



MPA staff onboarding the Workday platform at an online familiarisation session.

## myMPA Portal

The myMPA Portal is an integral part of MPA's new digital workplace experience, providing a one stop intranet portal for a full suite of employee services reorganised and re-engineered to a user perspective. It has also become the primary source of internal communications among staff to keep track of the latest happenings in MPA.

Phase One of myMPA Portal went live on 26 May 2022, with Phase Two set to be launched in 2023.



myMPA provides a one-stop portal for employee services.

Public Service Division and Accountant-General Department, Workday consolidates the statutory boards' human resource, finance, and payroll services to reap greater efficiencies.



MPA moved to the Workday platform, harmonising internal services across the whole of government.

# Upholding Organisational Excellence

## MPA CARES Committee

Our approach towards supporting the wellbeing of our officers is centred around the CARE principles (Commitment, Avoid working on rest/off days, Respect personal time, Engage regularly). In June 2022, the MPA CARES Committee was established and is headed by a Chief Care Officer (CCO). The CCO leads two teams overseeing the staff welfare and charity outreach.

With the progressive lifting of COVID measures in 2022, the Committee was back in full swing, organising several staff welfare events, such as MPA Movie Nights, Juniors at Work, and restarting interest groups to promote cross-division bonding and camaraderie. MPA officers also welcomed the resumption of large-scale events such as the annual Dinner and Dance and MPA Family Day.



MPA staff return in full force for MPA Family Day in November 2022.



Celebrations at the MPA Dinner and Dance in August 2022.



Juniors at Work, organised by the CARES Committee.



MPA renewed our adoption of the Movement for the Intellectually Disabled of Singapore (MINDS) and REACH Community Services in 2022. Several activities were held during the year, including volunteering for gift packing services for seafarers over the festive seasons, and our officers' participation in the MINDS Youth Group50 (MYG) event.

MPA officers also joined the REACH Youth Service's Christmas Carnival in December 2022, where they helped organise activities such as baking and art sessions.



The MPA family giving back through our adopted charity, MINDS at the MINDS Youth Group50 event.



All for a good cause: the MPA family spreading good cheer during the festive season for REACH community services.



# Upholding Organisational Excellence

## IMO Member State Audit Scheme (IMSAS)

As Singapore’s lead maritime agency, MPA facilitated and successfully completed the International Maritime Organization (IMO) Member State Audit Scheme (IMSAS) from 4 to 11 July 2022. The week-long audit was carried out by a team of international auditors from the IMO and two member States — Türkiye and the Republic of Korea. Other agencies involved in the audit included the Ministry of Transport, Republic of Singapore Navy, Air Force, Singapore Civil Defence

Force, Police Coast Guard, National Environment Agency, Attorney-General Chambers, Civil Aviation Authority of Singapore, and the Infocomm Media Development Authority.

IMSAS promotes consistent and effective implementation of applicable IMO instruments and serves as a mechanism for member States to obtain feedback on ways to improve their capabilities and performance.



MPA senior management and members of the International Maritime Organization (IMO) Member State Audit Scheme (IMSAS) audit team.

## Maritime Oral History

The Maritime Singapore story is an important part of Singapore’s history. To ensure valuable institutional knowledge is documented and passed on.

In 2022, MPAA reconceptualised the documentation of its Oral History Interviews. To make their presentation more engaging, a selection of existing and new interviews were also converted into an animation format. New interviews have also been added as videos.

To document our efforts during the COVID-19 pandemic, MPAA also introduced the COVID management series, featuring key personnel in MPA who helped fight COVID-19 to keep our ports open.

## Labour Relations

MPA values its relationship with the Amalgamated Union of Statutory Board Employees (AUSBE) and appreciates its role in promoting a harmonious and productive work environment, as well as lifelong employability of our officers through continuous learning. AUSBE actively organises events for its members such as bowling competitions as well as recruitment drives.

## Workplace Safety and Health

Workplace safety and health (WSH) of our employees remains a top priority.

Two Safety Time Out (STO) exercises were conducted in May and September 2022. Various divisions took the opportunity to remind staff of workplace safety and conducted safety procedures training such wearing of

Personal Protective Equipment (PPE) and three-point contact when climbing pilot ladders. The STO exercises also included on-site safety inspections and equipment checks. The WSH committee also reviewed hazard identification, risk assessments and control forms for work-related activities to ensure risk control measures were up to date and effective.



Safety Time Out Exercises allow MPA staff to review and improve safety at the workplace and out at sea.

## WSH Performance

MPA maintained its good performance for WSH in 2022, with zero fatalities and low work-related/ workplace incident rate.



## Awards & Recognition

### Top Maritime City by Menon Economics-DNV Leading Maritime Cities of the World Report 2022

7 Jan 2022

Singapore was ranked the top maritime city in the 2022 Menon Economics-DNV Report on Leading Maritime Cities of the World. This is the fifth consecutive time that Singapore is ranked as the top city by the Report.



### Special Appreciation Award

16 Mar 2022

The Award recognises efforts by the Ministry of Transport and its statutory bodies in building resilience in the sector and contributing to the recovery of Singapore's economy in 2021. Then Chief Executive, Ms Quah Ley Hoon, received the Award on behalf of MPA.

### Digital Achiever Award

6 May 2022

MPA was recognised as a Digital Achiever under the Tech Leader Awards 2022, organised by the Singapore Computer Society (SCS), for our digital port ecosystem programme comprising digitalPORT@SG™, SG-MDH, digitalOCEANS™ and digitalSHIP™.



Mr Koh Chin Yong, Chief Information Officer (centre) receiving the Digital Achiever Award from Mr Tan Kiat How, Senior Minister of State for Communications and Information (Left) and Mr Sam Liew, SCS President (Right)

### May Day Awards 2022

19 May 2022

Then MPA Chief Executive, Ms Quah Ley Hoon, received the Medal of Commendation during the NTUC May Day Awards 2022. This was in recognition of her leadership and partnership with the Singapore Maritime Officers' Union (SMOU) and tripartite partners in providing financial support to Singaporean seafarers, developing a framework to facilitate crew change in a safe manner, and prioritising vaccination for maritime workers and local seafarers during the COVID-19 pandemic.

### Public Sector Transformation (PST) Awards

13 Jun 2022

In 2022, a special category was introduced for efforts undertaken during the COVID-19 pandemic.

MPA and its officers were awarded the PST Awards under the following categories:

- Public Sector Transformation Awards 2021 — (COVID Dedicated Cycle)
- One Public Service Award  
Telemedicine COVID-19 Operations (MOH, MPA, ESG, IMDA & MOM)



PST One Public Service Award Winners

- Star Partner Award  
MPA (SG-STAR Fund Taskforce Singapore Shipping Association, Singapore Maritime Officer's Union, Singapore Organisation of Seamen)
- Citizen Engagement Award (CEA)  
Singapore Shipping Tripartite Alliance Resilience (SG-STAR) Fund\*

### Total Defence Awards (TDA) 2022 — National Service Advocate Award for Organisations

23 Jun 2022

The highest national accolade recognises stakeholders' exemplary support for National Service, including individuals, small and medium enterprises, large companies, and organisations.

MPA was a recipient of the TDA 2022 NS Advocate Award for Organisations.

### Knight of the French Order of the Legion of Honour

27 Jun 2022

The French government awarded then Chief Executive, Ms Quah Ley Hoon, the Knight of the Legion of Honour (Chevalier de la Légion d'Honneur). She was instrumental in keeping the facilities and services of the Port of Singapore open to allow the flow of goods throughout the COVID-19 pandemic and accelerating the maritime decarbonisation and digitalisation efforts.



Then Chief Executive Ms Quah Ley Hoon received the French Chevalier de la Légion d'Honneur for her efforts in keeping the Port of Singapore open during the COVID-19 pandemic and helping to advance decarbonisation and digitalisation in the maritime sector.

# Awards & Recognition

## World's top maritime centre in the Xinhua-Baltic International Shipping Centre Development Index

11 Jul 2022

Singapore secured its lead as the world's top maritime centre in the Xinhua-Baltic International Shipping Centre Development (ISCD) Index. This is the ninth consecutive year that Singapore is ranked first on the index.

The ISCD index is published by the Baltic Exchange, a global maritime data provider, in collaboration with Chinese state news agency, Xinhua. The index provides an independent ranking of the performance of 43 maritime locations on factors including cargo throughput, port facilities, maritime services and business environment. Singapore is ranked first, based on its robust port infrastructure, a comprehensive range of maritime services and supportive government policies.

## National Safety and Security Watch Group Awards 2022

26 Jul 2022

The Award recognises efforts by the Ministry of Transport and its statutory bodies in building resilience in the sector and contributing to the recovery of Singapore's economy in 2021. Then Chief Executive, Ms Quah Ley Hoon, received the Award on behalf of MPA.

## National Day Awards 2022

9 Aug 2022

Recognises individuals who have made significant and outstanding contributions to public service.

- **The Public Administration Medal (Silver)**  
Mr Tan Hoe Soon
- **The Public Administration Medal (Bronze)**  
Mr Tay Yeow Min
- **The Commendation Medal**  
Mr James Seow Jian Xue  
Mr Lim Jun Ming  
Ms Melissa Ho
- **The Efficiency Medal**  
Mr Anwari Bin Ahmad  
Mr Cheong Sin Huat  
Mr Muhammad Nor Azmi Bin Aman
- **The Long Service Medal**  
Mr Bert Chen and Ms Emily Shalawati Bte Sihab  
Mr Lee Weng Choy  
Dr Song Tiancheng  
Mr Thomas Ting

## Champions of Good 2022

1 Sep 2022

Then MPA Chief Executive, Ms Quah Ley Hoon, received the Medal of Commendation during the NTUC May Day Awards 2022. This was in recognition of her leadership and partnership with the Singapore Maritime Officers' Union (SMOU) and tripartite partners in providing financial support to Singaporean seafarers, developing a framework to facilitate crew change in a safe manner, and prioritising vaccination for maritime workers and local seafarers during the COVID-19 pandemic.



Ms Cindy Sim, Director (Finance, Procurement and Administration), receiving the Champions of Good Award from Mr Alvin Tan, Minister of State for Trade & Industry and Minister of State for Culture, Community and Youth.

## Asian Freight, Logistics and Supply Chain Awards (AFLAS)

7 Sep 2022

Organised by freight and logistics publication Asia Cargo News, the annual AFLAS Awards honour leading service providers in the supply chain community for demonstrating leadership and consistency in service quality, innovation, customer relationship management and reliability. Winners were determined by votes cast by readers of the publication.

Singapore was awarded the "Best Global Seaport" for a second consecutive year and "Best Seaport in Asia" for the 34<sup>th</sup> time at the AFLAS 2022.



Mr Victor Hui, Consul, Consulate-General of the Republic of Singapore in Hong Kong, receiving the awards on MPA's behalf.

## Minister's Innovation Award 2022

14 Oct 2022

Launched in 2002 to promote and reward innovation in the Ministry of Transport (MOT) and its statutory boards.

### Distinguished Award

- The Maritime Singapore Decarbonisation Blueprint 2050

### Merit Award

- MaritimeSG Youth Ambassadors
- Digital Port Ecosystem
- MPA Drone Detection and Monitoring

### Good Attempt

- Enhanced Patrol Craft for Fuel Efficiency
- NextGen Robust Foundation System @ Tuas Port

## Community Chest SHARE Gold Award

1 Nov 2022

The Charity Awards are presented to organisations that have made significant donations to Community Chest. MPA received the Charity Gold Award for our donations to Community Chest.



Mr Tan Hoe Soon, Assistant Chief Executive (Corporate and Strategy), receiving the SHARE Gold Award from Ms Sun Xueling, Minister of State for Social and Family Development.

# Awards & Recognition

## Value-For-Money Achievement Awards 2022

4 Nov 2022

The award recognises the Value-For-Money (VFM) efforts of the statutory boards under MOT.

### Distinguished Award

- Middleware — Enterprise Data Exchange

### Merit Award

- Radio Coverage in Port Waters

### Good Effort

- Virtual Aids — Navigation for Marine Incidents
- Terminal Capacity Study for TTP4
- Maritime Industry Survey Portal
- Enhance Corporate Services

## 2022 World Federation of Engineering Organizations (WFEO) H.J. Sabbagh Prize for Excellence in Engineering Construction

## ASEAN Outstanding Engineering Achievement Award 2022

## Institution of Engineers Singapore Prestigious Engineering Achievement Award (PEAA) 2022

Dec 2022

For the engineering innovations behind the Tuas Port Phase One, MPA and project partners were conferred three awards — the 2022 World Federation of Engineering Organizations (WFEO) H.J. Sabbagh Prize for Excellence in Engineering Construction, the ASEAN Outstanding Engineering Achievement Award at the 40th Conference of the ASEAN Federation of Engineering Organisations and the Institution of Engineers Singapore's Prestigious Engineering Achievement Award.



## LOO Award 2022

18 Nov 2022

Awarded by the Restroom Association of Singapore (RAS), the LOO Awards recognise organisations and individuals who have helped Singapore achieve a world recognised standard of restroom cleanliness.

MPA won the LOO Award 2022 for Best Office Happy Toilet. MPA achieved the 6-Star Magnificent Restroom which focused on five main areas — Design, Cleanliness, Effectiveness, Maintenance and User Satisfaction.

## National Awards (COVID-19)

29 Dec 2022

- **Public Administration Medal (Gold)**
  - Capt Muhammad Segar Abdullah, Assistant Chief Executive (Operations)
- **Public Administration Medal (Silver)**
  - Capt Daknashamoorthy S/O Ganasen, Senior Director (Operations & Marine Services)
  - Mr Foo Suan Jiong David, Assistant Chief Executive (Operations Technology)
  - Mr Lim Khoon Seng Kenneth, Assistant Chief Executive (Industry & Transformation) / QSM
  - Ms Png Lian Neo Angela, Senior Legal Advisor & Corporate Secretary
  - Mr Tan Suan Jow, Dean (MPA Academy)
  - Ms Tan Woei Tyng, Director (International Maritime Center)
- **Public Administration Medal (Bronze)**
  - Mr Lim Chuan Teck Alan, Senior Deputy Director (Operations Planning)
  - Mr Lim Kok Hai Kelton, Deputy Director (Port State Control)
  - Mr Vince Tan Tit Lee, Director (Operations Planning)
- **President's Certificate of Commendation (PCC)**
  - **Floating Accommodation** led by Ascott Limited
  - **Resilient and Open Supply Chain** which includes PSA International (PSA), Jurong Port Pte Ltd (JP), Singapore Cruise Centre Pte Ltd (SCCPL), Port Officers' Union (POU), Singapore Port Workers Union (SPWU), Pacific International Line (PIL)
  - **Safe Seafarer Ecosystem** which includes Singapore Shipping Association (SSA), Singapore Maritime Officers' Union (SMOU), Singapore Organization of Seamen (SOS)
  - **Sea Transport Operations Team (Private)** which includes York Launch Services Pte Ltd, Kanlian Ferry Pte Ltd, Parkway Shenton Medical Group, Fullerton Health Group, Raffles Medical Group
  - **Sea Transport Operations Team (Public)** led by MPA and includes officers from CA, RSAF, RSN, SCDF, PCG, EDB, ESG, STB, NEA, MOH and MTI
- **Commendation Medal**
  - Mr Alvin Tandian
  - Mr Ang Jit Hwee
  - Ms Bhavani Somu
  - Mr Chakravarty Ranabir
  - Ms Chan Kar Wei, Melinda
  - Ms Chan Shi Jun
  - Capt Charles Alexander De Souza
  - Ms Chee Liping
  - Er Cheng Sai Keong Albert
  - Ms Cheow Jingfen Vivien
  - Capt Chew Kian Kwee Andy
  - Mr Chiew Mun Kit, Nicholas
  - Mr Ching Kian Weng, Kelvin
  - Mr Chng Xian Ming Sam
  - Ms Chong Lee Fee
  - Capt Choo Jun An
  - Ms Choo Lee Yee
  - Ms Choong Li Yee Hermione
  - Ms Chow Weng Peng Jessica
  - Mr Chua Chuen Hua, Benjamin
  - Mr Eliyathamby S/O Narasinghan
  - Ms Foo Li Theng, Ina
  - Ms G Deepa
  - Mr Goh Jen Loong
  - Mr Goh Kah Seng
  - Ms Han Jie Hui
  - Ms Ho Phui San Angela
  - Capt Hoe Yong Cheng, Shawn
  - Ms Jean Wong
  - Mr Khoo Eugene
  - Mr Koh Cheng Ming Goldwin Julius
  - Mr Koh Thong Yong Francis
  - Ms Koh Yan Ling, Karen
  - Mr Kum Ying Hao Lester
  - Mr Lee Jian Ming
  - Mr Leong Kah Weng, Andrew
  - Mr Leong Ming Vai
  - Mr Leow Yong En, Darrick
  - Mr Liew Yong Min Elvin
  - Mr Lim Chee Seng
  - Ms Lim Hui Wen
  - Ms Lim Siew Khim
  - Mr Lim Swee Leong, Gary
  - Ms Lin Jit Lan Jenny
  - Ms Low Lay Leng
  - Mr Mohamed Abdul Saddiq S/O Abdul Haque
  - Mr Muhammad Aminoor Bin Sibal
  - Mr Muhammad Reza Bin Mohamed Jaafar
  - Mr Neo Guan Heng
  - Mr Neo Chee Wee
  - Mr Ng Yi Han
  - Mr Omar Bin Hashid
  - Mr Ong Ah Kiong
  - Mr Ooi Wei Jin Christopher
  - Mr Peh Ling Woon
  - Mr Qian Jun Steven
  - Ms Shen Wanling
  - Mr Sim Wen Jie, Ryan
  - Dr Song Tiancheng
  - Mr Sun Gangyi
  - Mr Syahan Syahrizal Bin Kamsani
  - Mr Tan Chee Sin
  - Mr Tan Cheng Peng
  - Ms Tan Geok Meng Jasmin
  - Ms Tan Su Wei Angeline
  - Mr Tan Yong Meng
  - Mr Tee Kim Chuan
  - Ms Teo Jia Wen Brenda
  - Er Tham Wai Wah
  - Ms Tong Qian Hui, Genuine
  - Ms Wee Xueting, Cheryl
  - Mr Wong Chong Wei James
  - Ms Wong Li Zhi, Felicia
  - Mr Wong Ru Peng
  - Ms Wong Seet Fun Sharon
  - Mr Wong Yan Zhi Rayson
  - Mr Yao Yikai
  - Mr Yeo Joon Kwang Gavin
  - Ms Yeoh Saw Ee, Bernice
  - Mr Yong Wai Kit Colin

## COVID-19 Resilience Medal

29 Dec 2022

- Mr Abdul Aziz Bin Ismail
- Mr Abdul Khalid Bin Mohd Akbar
- Ms Ang Chin Chin
- Mr Aw Eng Soon
- Ms Chen Huling Jeanette
- Ms Chew Peini Joreen
- Capt Chin Kwee Choy Bernard
- Mr Derrick Alan Tan Wang Khoon
- Capt Dilshad Ahmad
- Mr Ding Tiew Hing
- Ms Eunice Pui Ke Yui
- Mr Eyammie Bin Sahamin
- Ms Goh Yong Leng Annie
- Capt Harad Fadillah Bin Abdul Gani
- Ms Heng Xiu Pei, Purlynn
- Ms Kalai Arasi D/O Govindaraju
- Mr Kesavan S/O Arasu
- Mr Koo Kwang Hui Lawrence
- Mr Lee Chun Sing Jay
- Mr Lee Jun Hai, Raymond
- Mr Lee Shih Kwong Calvin
- Capt Leong Kah Weng, Andrew
- Ms Lim Choon Ting
- Ms Lim Shu Ching, Minerva
- Ms Lim Siew Ming, Regina
- Mr Lim Yan Zhi Ariel
- Ms Liu Shuhui, Serene
- Ms Loh Aizhen Rachel
- Mr Mazid Bin Othman
- Mr Muhammad Firdaus Bin Juraini
- Mr Muhammad Hafiz Bin Jumat
- Mr Muhammad Haizel Bin Hasbi
- Mr Muhammad Nor Azmi Bin Aman
- Mr Ng Sin Lee William
- Mr Ng Yin Hong Damien
- Capt Ngiam Kia Seng Scott
- Capt Nikhil Kumar
- Mr Noor Hafiz Bin Ramli
- Mr Noorendi Bin Abdul Rashid
- Ms Oh Yi Fang Daphne
- Mr Pang Chong Zheng, Kenneth
- Ms Poon Wei Lin Cheryl
- Mr Sahroni Bin Omar
- Mr Sapuan Bin Said
- Ms Sharifah Hassunah Binte Syed Yaacob
- Ms Tan Kar Hoon
- Ms Tan Lily
- Ms Tan Si Hui
- Mr Tan Ying Xian, Stefan
- Ms Tang Jwee Hoon
- Mr Tay Choon Kwee, Anthony
- Mr V. Uthrapathi Ultra
- Mr Viknesh S/O Gnanasagarar S
- Mr Zhang Wei Victor
- Capt Zheng Yi

THE MARITIME AND PORT AUTHORITY  
OF SINGAPORE

ANNUAL FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*



**THE MARITIME AND PORT AUTHORITY OF SINGAPORE**

**ANNUAL REPORT**

*For the financial year ended 31 December 2022*

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**THE MARITIME AND PORT AUTHORITY OF SINGAPORE**

**STATEMENT BY BOARD OF MEMBERS**

*For the financial year ended 31 December 2022*

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In the opinion of the Board of Members,

- (a) the financial statements of the Maritime and Port Authority of Singapore (the "Authority") as set out on pages 6 to 59 are properly drawn up so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2022 and of the results of the business, changes in equity and cash flows of the Authority for the financial year then ended in accordance with the provisions of the Public Sector (Governance) Act 2018, the Maritime and Port Authority of Singapore Act 1996 and Statutory Board Financial Reporting Standards; and
- (b) at the date of this statement, there are reasonable grounds to believe that the Authority will be able to pay its debts as and when they fall due.

On behalf of the Board of Members,



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Niam Chiang Meng  
Chairman



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Teo Eng Dih  
Chief Executive and Board Member

23 March 2023

# INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE

## Report on the Audit of the Financial Statements

### Our Opinion

In our opinion, the accompanying financial statements of the Maritime and Port Authority of Singapore (the "Authority") are properly drawn up in accordance with the provisions of the Public Sector (Governance) Act 2018 (the "Public Sector (Governance) Act"), the Maritime and Port Authority of Singapore Act 1996 (the "Act") and Statutory Board Financial Reporting Standards ("SB-FRS") so as to present fairly, in all material respects, the state of affairs of the Authority as at 31 December 2022 and the results, changes in equity and cash flows of the Authority for the year ended on that date.

#### *What we have audited*

The financial statements of the Authority comprise:

- The balance sheet as at 31 December 2022;
- the statement of comprehensive income for the financial year ended 31 December 2022;
- the statement of changes in equity for the financial year then ended;
- the statement of cash flows for the financial year then ended; and
- the notes to the financial statements, including a summary of significant accounting policies.

### Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### *Independence*

We are independent of the Authority in accordance with the Accounting and Corporate Regulatory Authority Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities ("ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code.

### Other Information

Management is responsible for the other information. The other information comprises the Statement by Board of Members but does not include the financial statements and our auditor's report thereon.

## **INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)**

### **Other Information (continued)**

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### **Responsibilities of Management and Those Charged with Governance for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the provisions of the Public Sector (Governance) Act, the Act and SB-FRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

A statutory board is constituted based on its Act and its dissolution requires Parliament's approval. In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless there is intention to wind up the Authority or for the Authority to cease operations.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

### **Auditor's Responsibilities for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

## **INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)**

### **Auditor's Responsibilities for the Audit of the Financial Statements (continued)**

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

### **Report on Other Legal and Regulatory Requirements**

#### **Opinion**

In our opinion:

- (a) the receipts, expenditure, investment of moneys and the acquisition and disposal of assets by the Authority during the year are, in all material respects, in accordance with the provisions of the Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority; and
- (b) proper accounting and other records have been kept, including records of all assets of the Authority whether purchased, donated or otherwise.

**INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE BOARD  
OF THE MARITIME AND PORT AUTHORITY OF SINGAPORE (continued)**

**Basis for Opinion**

We conducted our audit in accordance with SSAs. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Compliance Audit* section of our report. We are independent of the Authority in accordance with the ACRA Code together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on management's compliance.

**Responsibilities of Management for Compliance with Legal and Regulatory Requirements**

Management is responsible for ensuring that the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority. This responsibility include monitoring related compliance requirements relevant to the Authority, and implementing internal controls as management determines are necessary to enable compliance with the requirements.

**Auditor's Responsibilities for the Compliance Audit**

Our responsibility is to express an opinion on management's compliance based on our audit of the financial statements. We planned and performed the compliance audit to obtain reasonable assurance about whether the receipts, expenditure, investment of moneys and the acquisition and disposal of assets, are in accordance with the provisions of the Public Sector (Governance) Act, the Act and the requirements of any other written law applicable to moneys of or managed by the Authority.

Our compliance audit includes obtaining an understanding of the internal control relevant to the receipts, expenditure, investment of moneys and the acquisition and disposal of assets; and assessing the risks of material misstatement of the financial statements from non-compliance, if any, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Because of the inherent limitations in any internal control system, non-compliances may nevertheless occur and not be detected.



PricewaterhouseCoopers LLP  
Public Accountants and Chartered Accountants  
Singapore, 23 March 2023

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### BALANCE SHEET

As at 31 December 2022

	Note	2022 \$	2021 \$
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	4	79,710,317	83,900,646
Right-of-use assets	5	14,156,187	19,635,249
Capital work-in-progress	4,6	34,711,519	21,902,214
Financial assets	8	745,028,076	790,408,468
		<u>873,606,099</u>	<u>915,846,577</u>
<b>Current assets</b>			
Trade receivables	9	41,970,925	40,257,103
Deposits, prepayments and other receivables	10	16,691,229	12,658,540
Derivative financial instruments	24	11,889,227	10,684,402
Cash and cash equivalents	11	767,111,732	771,719,561
		<u>837,663,113</u>	<u>835,319,606</u>
<b>Total assets</b>		<u><b>1,711,269,212</b></u>	<u><b>1,751,166,183</b></u>
<b>EQUITY</b>			
Capital account	12	147,375,155	147,375,155
Share capital	13	3,978,616	3,978,616
Accumulated surplus		1,417,081,552	1,492,223,592
<b>Total equity</b>		<u><b>1,568,435,323</b></u>	<u><b>1,643,577,363</b></u>
<b>LIABILITIES</b>			
<b>Non-current liabilities</b>			
Deferred capital grant	15	12,474,975	13,784,451
Lease liabilities	16	11,440,048	14,993,121
		<u>23,915,023</u>	<u>28,777,572</u>
<b>Current liabilities</b>			
Trade and other payables	17	99,357,797	46,189,438
Advances, deposits and unearned income	18	9,765,776	12,418,821
Derivative financial instruments	24	6,077,703	3,017,339
Lease liabilities	16	3,717,590	5,553,508
Provision for contribution to Consolidated Fund	23	-	11,632,142
		<u>118,918,866</u>	<u>78,811,248</u>
<b>Total liabilities</b>		<u><b>142,833,889</b></u>	<u><b>107,588,820</b></u>
<b>Total equity and liabilities</b>		<u><b>1,711,269,212</b></u>	<u><b>1,751,166,183</b></u>
Funds managed/held on behalf of others	28	7,060,033	8,624,017
Funds' net assets managed/held on behalf of others	28	(7,060,033)	(8,624,017)

The accompanying notes form an integral part of these financial statements.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

STATEMENT OF COMPREHENSIVE INCOME

For the financial year ended 31 December 2022

	Note	2022 \$	2021 \$
<b>Operating revenue</b>			
Port dues and marine services	19	284,840,141	262,988,637
Shipping services	19	7,288,007	7,272,077
Rental income	19	2,855,326	2,897,415
Training	19	694,925	422,094
Miscellaneous revenue	19	1,207,496	247,869
		<u>296,885,895</u>	<u>273,828,092</u>
<b>Operating expenditure</b>			
Staff cost	20	101,096,036	98,675,848
Depreciation of property, plant and equipment	4	24,952,106	22,639,350
Depreciation of right-of-use assets	5	5,636,286	6,284,912
Hire of marine craft and sea garbage services		11,330,969	11,263,520
Fuel, repairs and maintenance		42,245,736	27,206,672
Interest on lease liabilities	16	584,384	739,396
Other operating expenses	21	81,668,204	74,104,460
		<u>267,513,721</u>	<u>240,914,158</u>
Operating surplus		29,372,174	32,913,934
Other (losses)/gains - net	22	(97,910,690)	34,165,956
<b>(Deficit)/surplus before grant and contribution to Consolidated Fund</b>		<b>(68,538,516)</b>	67,079,890
Amortisation of deferred capital grant	15	1,309,476	1,309,476
<b>(Deficit)/surplus before contribution to Consolidated Fund</b>		<b>(67,229,040)</b>	68,389,366
Contribution to Consolidated Fund	23	-	(11,632,142)
<b>(Deficit)/surplus for the year, representing total comprehensive (loss)/income for the year</b>		<b>(67,229,040)</b>	<b>56,757,224</b>

There is no other comprehensive income for the financial years ended 31 December 2022 and 2021.

The accompanying notes form an integral part of these financial statements.



**THE MARITIME AND PORT AUTHORITY OF SINGAPORE**

**STATEMENT OF CHANGES IN EQUITY**

*For the financial year ended 31 December 2022*

	<u>Capital account</u> \$	<u>Share capital</u> \$	<u>Accumulated surplus</u> \$	<u>Total</u> \$
<b>2022</b>				
<b>Beginning of financial year</b>	147,375,155	3,978,616	1,492,223,592	1,643,577,363
<u>Total comprehensive loss for the year</u>				
Deficit for the year	-	-	(67,229,040)	(67,229,040)
Dividends paid, representing total transaction with owners, recognised directly in equity	-	-	(7,913,000)	(7,913,000)
<b>End of financial year</b>	<b>147,375,155</b>	<b>3,978,616</b>	<b>1,417,081,552</b>	<b>1,568,435,323</b>
<b>2021</b>				
<b>Beginning of financial year</b>	147,375,155	3,978,616	1,469,001,368	1,620,355,139
<u>Total comprehensive income for the year</u>				
Surplus for the year	-	-	56,757,224	56,757,224
Dividends paid, representing total transaction with owners, recognised directly in equity	-	-	(33,535,000)	(33,535,000)
<b>End of financial year</b>	<b>147,375,155</b>	<b>3,978,616</b>	<b>1,492,223,592</b>	<b>1,643,577,363</b>

*The accompanying notes form an integral part of these financial statements.*

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### STATEMENT OF CASH FLOWS

For the financial year ended 31 December 2022

	Note	2022 \$	2021 \$
<b>Cash flows from operating activities</b>			
(Deficit)/surplus before contribution to Consolidated Fund		(67,229,040)	68,389,366
Adjustments for:			
- Depreciation of property, plant and equipment	4	24,952,106	22,639,350
- Depreciation of right-of-use assets	5	5,636,286	6,284,912
- (Reversal of)/impairment loss on trade receivables	9	(69,175)	114,796
- Provision for employee benefits	14	94,931	18,147
- Amortisation of deferred capital grant	15	(1,309,476)	(1,309,476)
- Interest on lease liabilities	16	584,384	739,396
- Net investment loss/(gain) from funds with fund managers	22	98,734,597	(29,564,164)
- Interest income on bank deposits	22	(1,735,924)	(819,495)
- Net loss on disposal of property, plant and equipment	22	335,009	31,478
		<u>59,993,698</u>	<u>66,524,310</u>
Changes in working capital:			
- Trade receivables		(1,644,647)	(2,707,795)
- Deposits, prepayments and other receivables		(2,966,194)	(1,674,418)
- Derivative financial instruments		1,855,539	(5,327,586)
- Trade and other payables		35,875,547	4,737,995
- Advances, deposits and unearned income		(2,653,045)	1,078,414
Cash generated from operations		<u>90,460,898</u>	<u>62,630,920</u>
Payment of employee benefits	14	(94,931)	(18,147)
Contribution paid to Consolidated Fund	23	(11,632,142)	(18,746,477)
<b>Net cash from operating activities</b>		<u>78,733,825</u>	<u>43,866,296</u>
<b>Cash flows from investing activities</b>			
Withdrawal of industry funds with Accountant-General's Department		35,742,988	33,722,178
Proceeds from sale of property, plant and equipment		14,154	4,229
Purchases of property, plant and equipment and capital work-in-progress		(16,627,432)	(21,474,666)
Placement of funds with custodian		(27,510,321)	(182,262,567)
Interest received		669,428	2,004,533
<b>Net cash used in investing activities</b>		<u>(7,711,183)</u>	<u>(168,006,293)</u>
<b>Cash flows from financing activities</b>			
Dividends paid		(7,913,000)	(33,535,000)
Principal repayment of lease liabilities	16	(5,546,215)	(6,094,136)
Interest paid	16	(584,384)	(739,396)
<b>Net cash used in financing activities</b>		<u>(14,043,599)</u>	<u>(40,368,532)</u>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<u>56,979,043</u>	<u>(164,508,529)</u>
Cash and cash equivalents at beginning of financial year		<u>115,264,586</u>	<u>279,773,115</u>
<b>Cash and cash equivalents at end of financial year</b>	11	<u>172,243,629</u>	<u>115,264,586</u>

The accompanying notes form an integral part of these financial statements.

# THE MARITIME AND PORT AUTHORITY OF SINGAPORE

## NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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These notes form an integral part of and should be read in conjunction with the accompanying financial statements.

### 1. General information

The Maritime and Port Authority of Singapore ("MPA") under the purview of Ministry of Transport, was established on 2 February 1996 under the Maritime and Port Authority of Singapore Act 1996 with the merger of the following organisations:

- The National Maritime Board (NMB);
- The Marine Department (MD); and
- The regulatory departments of the Port of Singapore Authority (PSA).

MPA is domiciled in Singapore and the address of its registered office is 460 Alexandra Road, 19<sup>th</sup> Storey, mTower, Singapore 119963.

The principal activities of MPA include the control of vessel movements to ensure a safe and secure port, and also the regulation of the port and marine services and facilities. MPA is the champion agency to develop and promote Singapore as an International Maritime Centre. MPA also represents Singapore regionally and internationally to safeguard Singapore's maritime interests.

The principal activities of its subsidiary and associated companies are set out in Note 7.

### 2. Significant accounting policies

#### 2.1 Basis of preparation

These financial statements of MPA ("the Authority") have been prepared in accordance with the provisions of the Public Sector (Governance) Act 2018 and the Maritime and Port Authority of Singapore Act 1996 and Statutory Board Financial Reporting Standards ("SB-FRS").

The financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with SB-FRS requires management to exercise its judgement in the process of applying the Authority's accounting policies. It also requires the use of certain critical accounting estimates and assumptions. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 3.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.1 Basis of preparation (continued)

###### Interpretations and amendments to published standards effective in 2022

On 1 January 2022, the Authority adopted the new or amended SB-FRS and Interpretations of SB-FRS that are mandatory for application for the financial year. Changes to the Authority's accounting policies have been made as required, in accordance with the transitional provisions in the respective SB-FRS.

The adoption of these new or amended SB-FRS did not result in substantial changes to the Authority's accounting policies and had no material effect on the amounts reported for the current or prior financial years.

##### 2.2 Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Authority recognises revenue when it transfers control of a product or service to a customer. Revenue comprises the fair value of the consideration received or receivable for the rendering of services in the ordinary course of the Authority's activities. Revenue is presented net of goods and services tax, rebates and discounts.

The Authority recognises revenue when the amount of revenue and related cost can be reliably measured, it is probable that the collectability of the related receivables is reasonably assured and when the specific criteria for each of the Authority's activities are met as follows:

(a) *Port dues and marine services*

Dues, licence and permit fees, and agency fee are recognised over time as and when services are performed. Any other marine services are recognised as and when the services are completed.

(b) *Training revenue*

Training revenue are recognised over time as and when services are performed.

(c) *Shipping services*

Shipping services, which comprise registration fees and seaman engagement and discharge fees, are recognised as and when services are completed. Annual payment scheme, such as annual administrative fee, will be recognised over time as and when services are performed.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.2 Revenue recognition (continued)

(d) *Rental income*

Rental income from operating leases (net of any incentives given to the lessees) is recognised on a straight-line basis over lease term.

(e) *Interest income*

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable.

(f) *Dividend income*

Dividend income is recognised when the right to receive payment is established.

##### 2.3 Government grants

Government grants received for the purchase or the construction of depreciable assets are accounted for as deferred capital grants. The deferred capital grants are amortised and charged to income or expenditure over the period necessary to match the annual depreciation charge of these assets or when the assets are disposed or written off. Where the grants relate to an expense item, they are recognised in income or expenditure over the periods necessary to match them on a systematic basis, to the costs, which they are intended to compensate.

##### 2.4 Group accounting

(a) *Subsidiary*

A subsidiary is an entity over which the Authority has control. The Authority controls an entity when the Authority is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. A subsidiary is fully consolidated from the date on which control is transferred to the Authority. It is deconsolidated from the date on that control ceases.

(b) *Associated company*

Associated company is an entity over which the Authority has significant influence, but not control, generally accompanied by a shareholding giving rise to voting rights of 20% and above but not exceeding 50%.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.4 Group accounting (continued)

###### (b) Associated company

Investments in associated company is accounted for in the consolidated financial statements using the equity method of accounting less impairment losses, if any.

To the extent the Authority's associated company is limited by guarantee and it does not share in their profits or losses, the Authority records its contributions to associated company as project grants in the statement of comprehensive income.

##### 2.5 Property, plant and equipment

###### (a) Measurement

Property, plant and equipment are initially recognised at cost and subsequently carried at cost less accumulated depreciation and accumulated impairment losses.

The cost of an item of property, plant and equipment initially recognised includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

The cost of a self-constructed asset includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, and the cost of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Assets previously from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority were taken in at their transacted cost.

Property, plant and equipment acquired and funded under Government grants are capitalised and depreciated over their useful lives. The related accretion of deferred capital grants is matched against the depreciation (please refer to Note 2.3).

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.5 Property, plant and equipment (continued)

###### (b) Depreciation

Depreciation on property, plant and equipment is calculated using the straight-line method to allocate their depreciable amounts over their estimated useful lives as follows:

	<u>Useful lives</u>
Leasehold land	Over the lease periods ranging from 6 to 58 years
Building structures	Over the lease periods ranging from 2 to 38 years
Wharves, hard-standing and roads	Over the lease periods ranging from 3 to 28 years
Renovation	8 years
Plant, machinery and equipment	5 to 15 years
Vehicles	10 years
Computers	5 years
Furniture and fittings	8 years
Floating craft	8 or 15 years

The residual values, estimated useful lives and depreciation method of property, plant and equipment are reviewed, and adjusted as appropriate, at each balance sheet date. The effects of any revision are recognised in income or expenditure when the changes arise.

###### (c) Subsequent expenditure

Subsequent expenditure relating to property, plant and equipment that has already been recognised is added to the carrying amount of the asset only when it is probable that future economic benefits associated with the item will flow to the Authority and the cost of the item can be measured reliably. All other repair and maintenance expenses are recognised in income or expenditure when incurred.

###### (d) Disposal

On disposal of an item of property, plant and equipment, the difference between the disposal proceeds and its carrying amount is recognised in income or expenditure within "Other income and gains - net".

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 2. Significant accounting policies (continued)

##### 2.6 Capital work-in-progress

Capital work-in-progress is stated at cost. Expenditure relating to the capital work-in-progress is capitalised when incurred. No depreciation is provided until the capital work-in-progress is completed and the related property, plant and equipment are available for use.

##### 2.7 Impairment of non-financial assets

*Property, plant and equipment*

*Right-of-use assets*

*Capital work-in-progress*

*Investments in subsidiary and associated companies*

Property, plant and equipment, right-of-use assets, capital work-in-progress and investments in subsidiary and associated companies are tested for impairment whenever there is any objective evidence or indication that these assets may be impaired.

For the purpose of impairment testing, the recoverable amount (i.e. the higher of the fair value less cost to sell and the value-in-use) is determined on an individual asset basis unless the asset does not generate cash inflows that are largely independent of those from other assets. If this is the case, the recoverable amount is determined for the Cash Generating Unit (CGU) to which the asset belongs.

If the recoverable amount of the asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount.

The difference between the carrying amount and recoverable amount is recognised as an impairment loss in income or expenditure.

An impairment loss for an asset other than goodwill is reversed only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. The carrying amount of this asset is increased to its revised recoverable amount, provided that this amount does not exceed the carrying amount that would have been determined (net of any accumulated amortisation or depreciation) had no impairment loss been recognised for the asset in prior years. A reversal of impairment loss for an asset other than goodwill is recognised in income or expenditure.



## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.8 Financial assets

###### (a) Classification

The Authority classifies its financial assets in the following categories: amortised cost and fair value through profit or loss ("FVTPL") under SB-FRS 109. The classification depends on the nature of the asset and the purpose for which the assets were acquired. The Authority determines the classification of its financial assets at initial recognition, based on SB-FRS 109's Business Model and Contractual Cash Flows tests.

###### (i) Financial Assets held at Amortised Cost

Financial assets held at Amortised Cost comprises mainly non-derivative cash and bank balances and trade and other receivables with fixed or determinable payments that are not quoted in an active market. They are presented as current assets except for those expected to be realised later than 12 months after the balance sheet date which are presented as non-current assets. These financial assets are presented as "trade receivables" (Note 9), "other receivables" (Note 10) and "cash and cash equivalents" (Note 11) on the balance sheet.

###### (ii) Financial assets held at Fair Value through Profit or Loss ("FVTPL")

Financial assets held at FVTPL are non-derivatives that are either classified or designated in this category. They are presented as non-current assets unless the investment matures or the Authority intends to dispose of the assets within 12 months after the balance sheet date.

The Authority's investments in equity and debt securities, including equity and debt securities placed by fund managers, where investment performance is evaluated on a fair value (total return) basis, are classified as FVTPL financial assets.

###### (b) Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade-date - the date on which the Authority commits to purchase or sell the asset.

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Authority has transferred substantially all risks and rewards of ownership. On disposal of a financial asset, the difference between the carrying amount and the sale proceeds is recognised in income or expenditure. Any amount previously recognised in other comprehensive income relating to that asset is reclassified to income or expenditure.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.8 Financial assets (continued)

###### (c) Initial measurement

Except for trade receivables measured at transaction price, at initial recognition, financial assets are measured at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset. Financial assets held at FVTPL are recognised at fair value.

###### (d) Subsequent measurement

FVTPL financial assets are subsequently carried at fair value. Trade and other receivables are subsequently carried at amortised cost using the effective interest method.

Interest and dividend income on FVTPL financial assets, and changes in fair values of FVTPL debt and equity securities are recognised in income or expenditure.

###### (e) Impairment

The Authority recognises a loss allowance for expected credit losses ("ECL") on trade and other receivables. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Authority recognises lifetime ECL for trade receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Authority's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

For all other financial instruments, the Authority recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the Authority measures the loss allowance for that financial instrument at an amount equal to 12-month ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition instead of on evidence of a financial asset being credit-impaired at the reporting date or an actual default occurring.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.8 Financial assets (continued)

###### (e) Impairment (continued)

###### *Significant increase in credit risk*

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Authority compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Authority considers historical loss rates for each category of customers and adjusts to reflect current and forward-looking macroeconomic factors affecting the ability of the customers to settle the receivables. The Authority has identified the credit default risk for logistics and transportation industry to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors.

The Authority presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Authority has reasonable and supportable information that demonstrates otherwise.

The Authority assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if i) the financial instrument has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Authority regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

###### *Definition of default*

The Authority considers that default has occurred when a financial asset is more than 90 days past due unless the Authority has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.8 Financial assets (continued)

###### (e) Impairment (continued)

###### *Credit-impaired financial assets*

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

###### *Write-off policy*

The Authority writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the chances of recovery are remote. Financial assets written off may still be subject to enforcement activities under the Authority's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in income or expenditure.

###### *Measurement and recognition of expected credit losses*

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to the Authority in accordance with the contract and all the cash flows that the Authority expects to receive, discounted at the original effective interest rate.

If the Authority has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Authority measures the loss allowance at an amount equal to 12-month ECL at the current reporting date.

##### 2.9 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 2. Significant accounting policies (continued)

##### 2.10 Trade and other payables

Trade and other payables represent liabilities for goods and services provided to the Authority prior to the end of financial year which are unpaid. They are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). Otherwise, they are presented as non-current liabilities.

Trade and other payables are initially recognised at fair value, and subsequently carried at amortised cost using the effective interest method.

##### 2.11 Derivative financial instruments

The Authority engages external fund managers to manage some of its surplus funds. The Authority is exposed primarily to the financial risks of foreign exchange and interest rate fluctuations on debt and equity securities and cash and cash equivalents placed by the fund managers. The fund managers also hold derivative financial instruments to manage these risks. The use of hedging instruments is governed by the Authority's investment mandate which provides guidelines on the use of financial instruments consistent with the Authority's risk management strategy.

A derivative financial instrument is initially recognised at its fair value on the date the contract is entered into and is subsequently carried at its fair value. Changes in fair value are recognised in income or expenditure.

##### 2.12 Fair value estimation of financial assets and liabilities

The fair values of financial instruments traded in active markets (such as exchange-traded and over-the-counter securities and derivatives) are based on quoted market prices at the balance sheet date. The quoted market prices used for financial assets are the current bid prices; the appropriate quoted market prices for financial liabilities are the current asking prices.

The fair values of financial instruments that are not traded in an active market are determined by using valuation techniques. The Authority uses a variety of methods and makes assumptions based on market conditions that are existing at each balance sheet date. Where appropriate, quoted market prices or dealer quotes for similar instruments are used. Valuation techniques, such as discounted cash flow analysis, are also used to determine the fair values of the financial instruments.

The fair values of current financial assets and liabilities carried at amortised cost approximate their carrying amounts.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.13 Leases

###### (a) Leases

###### (i) The Authority as lessee

The Authority assess whether a contract is or contains a lease, at inception of the contract. The Authority recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term lease (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Authority recognises the lease payments as an operating expense on a straight-line basis over the lease term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Authority uses the incremental borrowing rate specific to the lessee.

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in-substance fixed payments), less any lease incentives;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the lessee under residual value guarantees;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the balance sheet.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.13 Leases (continued)

###### (a) Leases (continued)

###### (i) The Authority as lessee (continued)

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Authority remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- the lease term has changed or there is significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- the lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used); or
- a lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 2. Significant accounting policies (continued)

##### 2.13 Leases (continued)

###### (a) Leases (continued)

###### (i) *The Authority as lessee* (continued)

Whenever the Authority incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under SB-FRS 37. To the extent that the costs relate to a right-of-use asset, the costs are included in the related right-of-use asset.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Authority expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the balance sheet.

The Authority applies SB-FRS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in Note 2.7.

Variable rents that do not depend on an index or rate are not included in the measurement of the lease liability and the right-of-use asset. The related payments are recognised as an expense in the period in which the event or condition that triggers those payments occurs and are included in the line "Other operating expenses" in the statement of comprehensive income.

As a practical expedient, SB-FRS 116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The Authority has not used this practical expedient. For a contract that contains a lease component and one or more additional lease or non-lease components, the Authority allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.



## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 2. Significant accounting policies (continued)

##### 2.13 Leases (continued)

###### (a) Leases (continued)

###### (i) The Authority as lessee (continued)

###### *Rent concessions*

The Authority has elected to early adopt the amendments to SB-FRS 116 which introduced a practical expedient for a lessee to elect not to assess whether a rent concession is a lease modification, if all the following conditions are met:

- (a) the change in lease payments results in revised considerations for the lease that is substantially the same as, or less than, the consideration for the lease immediately preceding the change;
- (b) any reduction in lease payments affects only payments originally due on or before 30 June 2022; and
- (c) there is no substantive change to other terms and conditions of the lease.

The Authority has elected to apply this practical expedient to all property leases. As a result of applying the practical expedient, rent concessions was recognised as reduction in the rental expenses as disclosed in Note 21.

###### (ii) The Authority as lessor

The Authority enters into lease agreements as a lessor with respect to rental space and buildings.

Leases for which the Authority is a lessor are classified as finance or operating lease. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating lease.

Rental income from operating leases is recognised on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised on a straight-line basis over the leased term.

When a contract includes lease and non-lease components, the Authority applies SB-FRS 15 to allocate the consideration under the contract to each component.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 2. Significant accounting policies (continued)

##### 2.14 Provisions

A provision is recognised when the Authority has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

##### 2.15 Employee compensation

Employment benefits are recognised as an expense, unless the cost qualifies to be capitalised as an asset.

###### (a) *Defined contribution plans*

Defined contribution plans are post-employment benefit plans under which the Authority pays fixed contributions into separate entities such as the Central Provident Fund on a mandatory, contractual or voluntary basis. The Authority has no further payment obligations once the contributions have been paid.

###### (b) *Pension benefits*

Provision for pensions is made for the payment of retirement benefits to pensionable officers transferred to the Authority on 2 February 1996.

The cost of pension benefit due to pensionable officers is determined based on the estimated present value of the future cash outflows to be made in respect of services provided by these pensionable officers up to the balance sheet date.

###### (c) *Employee leave entitlement*

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 2. Significant accounting policies (continued)

##### 2.16 Currency translation

(a) *Functional and presentation currency*

The financial statements are presented in Singapore Dollars, which is the functional currency of the Authority.

(b) *Transactions and balances*

Transactions in a currency other than Singapore Dollar ("foreign currency") are translated into Singapore Dollars using the exchange rates at the dates of the transactions. Currency exchange differences resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the closing rates at the balance sheet date are recognised in income or expenditure. Non-monetary items measured at fair values in foreign currencies are translated using the exchange rates at the date when the fair values are determined. Currency translation differences on these items are included in income or expenditure.

##### 2.17 Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents include cash on hand, deposits with financial institutions, commercial papers, short-term bills and notes which are readily convertible to cash and are subject to an insignificant risk of change in value, and bank overdrafts, except those which are managed by the fund managers or which are placed under the Statutory Board Approved Funds with the Accountant-General's Department. Bank overdrafts are presented as current borrowings on the balance sheet.

##### 2.18 Funds managed/held on behalf of others

Funds are set up to account for contributions received from external sources for specific purposes.

The assets and liabilities of funds - Straits of Malacca and Singapore Revolving Fund Committee, Singapore Stranded Seafarers' Fund, and agency funds held in trust for Ministry of Transport are presented as a line item at the bottom of the balance sheet of the financial statements as prescribed by SB-FRS Guidance Note 3 *Accounting and Disclosures for Trust Funds*. Income or expenditure relating to these funds are accounted for directly in these funds. Details of income, expenditure, assets and liabilities are disclosed in Note 28 to the financial statements.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 3. Critical accounting estimates, assumptions and judgements

Estimates, assumptions and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

##### 3.1 Critical accounting estimates and assumptions

###### *Useful lives of property, plant and equipment*

The Authority reviews the estimated useful lives of property, plant and equipment regularly, in accordance with the accounting policy in Note 2.5, in order to determine the amount of depreciation expense to be recorded for each financial year. Changes in the expected level of use of the assets and the Authority's historical experience with similar assets after taking into account anticipated technological changes could impact the economic useful lives and the residual values of the assets, and therefore, future depreciation charges could be revised. Any changes in the economic useful lives could impact the depreciation charges and consequently affect the Authority's results. Refer to Note 4 for the carrying value of property, plant and equipment at the balance sheet date.

###### *Accounting for investments in and contributions to associated companies*

MPA has determined that it has significant influence over its associated companies based on the voting rights of 20% and above but not exceeding 50%, held by its representatives at the board of directors of the associated companies. As the associated companies are incorporated as companies limited by guarantee and MPA does not share in their profits or losses, MPA has recorded the contributions of \$14,024,871 (2021: \$12,284,643) made to the associated companies as grant expenditure in the statement of comprehensive income.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

4. Property, plant and equipment

	Leasehold land*	Building structures	Wharves, hard-standing and roads*	Renovation	Plant, machinery and equipment	Vehicles	Computers	Furniture and fittings	Floating craft	Sub-total	Capital work-in-progress	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>2022</b>												
Cost												
Beginning of financial year	8,477,423	58,152,969	117,376,253	18,475,797	16,520,858	669,276	116,143,761	3,509,181	9,689,026	349,014,544	21,902,214	370,916,758
Additions	-	-	-	-	36,500	-	2,062,095	61,070	5,640	2,165,305	31,754,940	33,920,245
Transfers	-	-	-	1,370,451	1,196,251	-	3,564,738	521,389	12,290,806	18,945,635	(18,945,635)	-
Disposals/write-off	(23)	-	(2,383,727)	(2,383,727)	(290,572)	-	(2,371,407)	(352,176)	-	(5,397,905)	-	(5,397,905)
End of financial year	8,477,400	58,152,969	117,376,253	17,462,521	17,465,037	669,276	119,399,187	3,739,464	21,985,472	364,727,579	34,711,519	399,439,098
Accumulated depreciation												
Beginning of financial year	4,944,491	44,020,386	90,134,487	14,044,791	11,730,954	414,191	89,411,414	2,416,408	7,996,776	265,113,898	-	265,113,898
Depreciation charge	346,661	3,678,433	6,433,513	1,441,214	1,146,427	67,980	10,653,906	325,524	858,448	24,952,106	-	24,952,106
Disposals/write-off	(26)	-	-	(2,203,095)	(272,976)	-	(2,334,193)	(238,452)	-	(5,048,742)	-	(5,048,742)
End of financial year	5,291,126	47,698,819	96,568,000	13,282,910	12,604,405	482,171	97,731,127	2,503,480	8,855,224	285,017,262	-	285,017,262
<b>Carrying amount:</b>												
<b>End of financial year</b>	<b>3,186,274</b>	<b>10,454,150</b>	<b>20,808,253</b>	<b>4,179,611</b>	<b>4,860,632</b>	<b>187,105</b>	<b>21,668,060</b>	<b>1,235,984</b>	<b>13,130,248</b>	<b>79,710,317</b>	<b>34,711,519</b>	<b>114,421,836</b>
<b>2021</b>												
Cost												
Beginning of financial year	8,477,517	58,175,939	113,494,485	18,373,193	16,185,038	669,276	110,730,421	3,564,072	9,756,526	339,426,467	10,903,072	350,329,539
Additions	-	-	-	137,409	641,728	-	4,938,134	21,565	-	5,738,836	16,664,720	22,403,556
Transfers	-	-	3,881,768	-	-	-	1,783,810	-	-	5,665,578	(5,665,578)	-
Disposals/write-off	(94)	(22,970)	-	(34,805)	(305,908)	-	(1,308,604)	(76,456)	(67,500)	(1,816,337)	-	(1,816,337)
End of financial year	8,477,423	58,152,969	117,376,253	18,475,797	16,520,858	669,276	116,143,761	3,509,181	9,689,026	349,014,544	21,902,214	370,916,758
Accumulated depreciation												
Beginning of financial year	4,600,981	42,375,923	83,618,831	12,804,548	10,986,131	347,263	79,616,203	2,082,772	7,822,526	244,255,178	-	244,255,178
Depreciation charge	343,510	1,667,433	6,515,656	1,275,048	1,041,461	66,928	11,103,815	383,749	241,750	22,639,350	-	22,639,350
Disposals/write-off	-	(22,970)	-	(34,805)	(296,638)	-	(1,308,604)	(50,113)	(67,500)	(1,780,630)	-	(1,780,630)
End of financial year	4,944,491	44,020,386	90,134,487	14,044,791	11,730,954	414,191	89,411,414	2,416,408	7,996,776	265,113,898	-	265,113,898
<b>Carrying amount:</b>												
<b>End of financial year</b>	<b>3,532,932</b>	<b>14,132,583</b>	<b>27,241,766</b>	<b>4,431,006</b>	<b>4,789,904</b>	<b>255,085</b>	<b>26,732,347</b>	<b>1,092,773</b>	<b>1,692,250</b>	<b>83,900,646</b>	<b>21,902,214</b>	<b>105,802,860</b>

\* Include right-of-use assets with carrying amounts of \$4,003,741 (2021: \$5,560,630) and depreciation charge of \$1,556,889 (2021: \$1,681,901). There are no corresponding lease liabilities as these leases have been fully paid for.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

5. Right-of-use assets

The Authority leases a number of building structures, plant, machinery and equipment and floating craft. The lease term ranges from 1 year to 8 years (2021: 1 year to 8 years).

	Building structures	Plant, machinery and equipment	Other equipment	Floating craft	Total
	\$	\$	\$	\$	\$
<b>2022</b>					
<b>Cost</b>					
Beginning of financial year	10,257,134	36,168	17,800	21,615,648	31,926,750
Additions	92,396	-	7,503	-	99,899
Modification of lease liabilities	57,325	-	-	-	57,325
Disposals	(2,953,351)	(36,168)	-	-	(2,989,519)
End of financial year	7,453,504	-	25,303	21,615,648	29,094,455
<b>Accumulated depreciation</b>					
Beginning of financial year	6,003,519	31,145	8,405	6,248,432	12,291,501
Depreciation charge	2,574,523	5,023	9,934	3,046,806	5,636,286
Disposals	(2,953,351)	(36,168)	-	-	(2,989,519)
End of financial year	5,624,691	-	18,339	9,295,238	14,938,268
<b>Carrying amount:</b>					
<b>End of financial year</b>	<b>1,828,813</b>	<b>-</b>	<b>6,964</b>	<b>12,320,410</b>	<b>14,156,187</b>
<b>2021</b>					
<b>Cost</b>					
Beginning of financial year	7,727,450	36,168	17,800	21,615,648	29,397,066
Additions	2,589,171	-	-	-	2,589,171
Modification of lease liabilities	55,520	-	-	-	55,520
Disposals	(115,007)	-	-	-	(115,007)
End of financial year	10,257,134	36,168	17,800	21,615,648	31,926,750
<b>Accumulated depreciation</b>					
Beginning of financial year	2,898,409	19,089	2,472	3,201,626	6,121,596
Depreciation charge	3,220,117	12,056	5,933	3,046,806	6,284,912
Disposals	(115,007)	-	-	-	(115,007)
End of financial year	6,003,519	31,145	8,405	6,248,432	12,291,501
<b>Carrying amount:</b>					
<b>End of financial year</b>	<b>4,253,615</b>	<b>5,023</b>	<b>9,395</b>	<b>15,367,216</b>	<b>19,635,249</b>

During the current year, the Authority renegotiated and modified existing lease contracts for 3 (2021: 1) building structures by revising the lease periods. These revisions are accounted for as lease modifications to the right-of-use assets. The corresponding remeasurement to lease liabilities is recorded under Note 16.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

#### 6. Capital work-in-progress

Capital work-in-progress relates mainly to the cost of computer systems and maritime and port projects under development (Note 4).

#### 7. Investments in subsidiary and associated companies

##### (a) Subsidiary

	2022 \$	2021 \$
Cost of investment		
At beginning of financial year	-	2
Disposal	-	(2)
At end of financial year	-	-

Details of the subsidiary are as follows:

Name of subsidiary	Country of incorporation	Effective equity held by the Authority	
		2022 %	2021 %
MPA Venture Pte. Ltd.	Singapore	-	-

The principal activity of the subsidiary was to act as a holding company to own jointly intellectual properties and manage investments in maritime technology start-ups and companies and joint ventures with partners. The subsidiary has been dormant. On 11 January 2021, upon application made by MPA Venture Pte. Ltd. to the Accounting and Corporate Regulatory Authority ("ACRA"), the Company was struck off from the register on 4 May 2021 pursuant to Section 344A of the Companies Act 1967.

##### (b) Associated companies

###### Singapore Maritime Institute

In January 2011, the Authority, together with Agency for Science, Technology and Research ("A\*STAR"), incorporated Singapore Maritime Institute ("SMI"), a company limited by guarantee. The principal activity of SMI is to develop strategies and programmes related to the academic, policy and research and development aspects of the maritime industry. As at 31 December 2022, the Authority had contributed a total amount of \$90,329,339 (2021: \$76,440,633) of grants to SMI (including unutilised amount of \$710,412 (2021: \$846,577)).

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 7. Investments in subsidiary and associated companies (continued)

##### (b) Associated companies (continued)

###### *Global Centre for Maritime Decarbonisation*

In July 2021, the Authority incorporated the Global Centre for Maritime Decarbonisation ("GCMD"), a company limited by guarantee. The principal activity of GCMD is to promote and translate research and development, testbeds and trials on decarbonisation into solutions for the maritime industry and to foster collaborations between sectors on maritime decarbonisation. Total expected contributions from MPA and six founding partners is \$120,000,000. As of 31 December 2022, the Authority had not made any contributions to GCMD.

As these associated companies are limited by guarantee and the Authority does not share in their profits or losses, the Authority records its contributions to these associated companies as project grants in the statement of comprehensive income.

#### 8. Financial assets

	2022	2021
	\$	\$
<b>Non-current</b>		
Classified as Fair Value through Profit or Loss:		
- Quoted equity securities managed by fund managers	170,336,701	255,847,364
- Quoted debt securities managed by fund managers	574,691,375	534,561,104
	<u>745,028,076</u>	<u>790,408,468</u>

The Authority manages its holding of investments in quoted equity securities on a portfolio level with the objective of ensuring long term growth of its portfolio. The objective is not to collect contractual cash flows, nor is it to collect contractual cash flows by selling these securities. These securities have no fixed maturity or coupon rate. The fair values of these securities are based on closing quoted market prices on the last market day of the financial year.

The investment in quoted debt securities are held by the Authority with the objective of ensuring long term growth of its portfolio. The fair values of these securities are based on closing quoted market prices on the last market day of the financial year.

Investment losses, amounting to \$98,734,597 (2021: investment gains amounting to \$29,564,164) have been included in income or expenditure for the financial year as part of "Other (losses)/gains- net" in Note 22.



## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 9. Trade receivables

	2022 \$	2021 \$
Trade receivables	42,176,084	40,531,437
Less: Loss allowance	(205,159)	(274,334)
Trade receivables - net	<u>41,970,925</u>	<u>40,257,103</u>

The Authority's exposure to credit risk arises through its trade receivables. Due to the nature of the Authority's business, credit risk is not concentrated in any specific geographical region but concentrated in many shipping companies exposed to business cyclical fluctuations.

Trade receivables are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

#### *Impairment losses*

The average credit period on sale of goods is 30 days (2021: 30 days).

The loss allowance on trade receivables has been measured at an amount equal to lifetime expected credit losses. In addition, trade receivable is written off when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery.

The following tables detail the Authority's credit risk exposure in relation to trade receivables from contracts with customers based on the Authority's provision matrix. As the Authority's historical credit loss experience show significantly different loss patterns for different customer segments (including normal and low risk type), the provision for loss allowance based on past due status is further distinguished between the Authority's customer segment of different risk type.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

9. Trade receivables (continued)

Impairment losses (continued)

The average credit period on sale of goods is 30 days (2021: 30 days).

	Normal risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		\$	\$	\$
<b>2022</b>				
Current	-	35,230,278	-	35,230,278
1 - 30 days	0.61%	1,282,049	(7,868)	1,274,181
31 - 60 days	3.07%	256,059	(7,853)	248,206
61 - 90 days	27.17%	164,732	(44,764)	119,968
> 90 days	11.72%	1,234,333	(144,674)	1,089,659
<b>Total</b>		<b>38,167,451</b>	<b>(205,159)</b>	<b>37,962,292</b>

	Low risk type customers			
	ECL rate	Estimated total gross carrying amount at default	Lifetime ECL	Total
		\$	\$	\$
<b>2022</b>				
Current	-	-	-	-
1 - 30 days	-	-	-	-
31 - 60 days	-	-	-	-
61 - 90 days	-	-	-	-
> 90 days	-	4,008,633	-	4,008,633
<b>Total</b>		<b>4,008,633</b>	<b>-</b>	<b>4,008,633</b>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

9. Trade receivables (continued)

Impairment losses (continued)

	Normal risk type customers			
	Estimated total gross carrying amount at			
	ECL rate	default	Lifetime ECL	Total
	\$	\$	\$	
<b>2021</b>				
Current	-	34,602,381	-	34,602,381
1 - 30 days	1.56%	2,968,864	(46,325)	2,922,539
31 - 60 days	13.43%	172,165	(23,130)	149,035
61 - 90 days	18.12%	58,282	(10,562)	47,720
> 90 days	16.79%	1,157,006	(194,317)	962,689
<b>Total</b>		<b>38,958,698</b>	<b>(274,334)</b>	<b>38,684,364</b>

	Low risk type customers			
	Estimated total gross carrying amount at			
	ECL rate	default	Lifetime ECL	Total
	\$	\$	\$	
<b>2021</b>				
Current	-	-	-	-
1 - 30 days	-	-	-	-
31 - 60 days	-	-	-	-
61 - 90 days	-	-	-	-
> 90 days	-	1,572,739	-	1,572,739
<b>Total</b>		<b>1,572,739</b>	<b>-</b>	<b>1,572,739</b>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

9. Trade receivables (continued)

The movements in credit loss allowance are as follows:

	2022 \$	2021 \$
Beginning of financial year	274,334	159,538
Loss allowance recognised in income or expenditure during the year on:		
- Asset originated	205,159	274,334
- Reversal of unutilised amounts	(274,334)	(159,538)
	(69,175)	114,796
End of financial year	205,159	274,334

Based on historical default rate, the Authority believes that, apart from the above, no impairment allowance is necessary in respect of other trade receivables outstanding at the balance sheet date.

10. Deposits, prepayments and other receivables

	2022 \$	2021 \$
Deposits	642,066	617,476
Prepayments	6,293,623	3,254,153
Other receivables	4,222,088	4,307,621
Amount due from associate (non-trade)	284,645	846,577
Interest receivable	5,248,807	3,632,713
	16,691,229	12,658,540

Other receivables mainly comprise dividends receivable and receivables on sale of financial instruments.

Amount due from associate is unsecured, interest-free and is repayable on demand.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

10. Deposits, prepayments and other receivables (continued)

As at the balance sheet date, other receivables and accrued interest receivable include the following items managed by fund managers:

	2022 \$	2021 \$
Interest receivable	3,749,847	3,200,248
Receivables on sale of financial instruments	240,708	112
Other receivables (mainly dividend receivables and withholding tax receivables)	390,712	419,636
	<u>4,381,267</u>	<u>3,619,996</u>

The Authority has not made any allowance for ECL on the financial assets as the Authority is of the view that these are recoverable.

11. Cash and cash equivalents

	2022 \$	2021 \$
Cash at bank and on hand	89,206,311	29,488,206
Placement with Accountant-General's Department	541,958,143	538,929,681
- Statutory Board Approved Funds ("SBAF")	392,655,811	428,398,799
- Centralised Liquidity Management Framework ("CLMF")	149,302,332	110,530,882
Short-term bills and notes	135,947,278	203,301,674
	<u>767,111,732</u>	<u>771,719,561</u>

For the purpose of presenting the statement of cash flows, cash and cash equivalents comprise the following:

	2022 \$	2021 \$
Cash and bank balances (as above)	767,111,732	771,719,561
Less: Cash and cash equivalents managed by fund managers	(202,212,292)	(228,056,176)
Less: Placement with SBAF	(392,655,811)	(428,398,799)
Cash and cash equivalents per statement of cash flows	<u>172,243,629</u>	<u>115,264,586</u>

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

#### 11. Cash and cash equivalents (continued)

The Authority's cash and cash equivalents (excluding those managed by fund managers) are mainly denominated in Singapore Dollar, which is the Authority's functional currency.

Placement with the Accountant-General's Department comprise:

- (i) \$149,302,332 (2021: \$110,530,882) which is centrally managed by the Accountant-General's Department under the CLMF, as set out in the Accountant-General's Circular No. 4/2009 Centralised Liquidity Management for Statutory Boards and Ministries, and
- (ii) Industry funds of \$392,655,811 (2021: \$428,398,799) which is placed under the SBAF and is subject to restrictions.

As at the balance sheet date, cash and cash equivalents include the following managed by fund managers:

	2022 \$	2021 \$
Cash at bank and on hand	66,265,014	24,754,502
Short-term bills and notes	135,947,278	203,301,674
	<u>202,212,292</u>	<u>228,056,176</u>

The effective interest rates of fixed deposits with the Accountant-General's Department under the CLMF vary from 0.31% to 2.21% (2021: 0.28% to 0.39%) per annum ("p.a."). The maturity of CLM fixed deposits ranges from 11 months to 12 months (2021: from 8 months to 14 months). These deposits are highly liquid, readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

The effective interest rates of cash and cash equivalents managed by fund managers are as follows:

	2022 % p.a.	2021 % p.a.
Commercial paper	-	0.13 to 0.34
Short-term bills and notes	<u>2.09 to 4.82</u>	<u>(0.85) to 1.00</u>

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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#### 12. Capital account

The capital account comprises the net book value of assets transferred to the Authority from the former National Maritime Board, the Marine Department and the regulatory departments of the Port of Singapore Authority.

##### *Capital management*

The Authority defines “capital” to include capital account and reserves. The Board's policy is to maintain a strong capital base to safeguard the ability to meet the long-term development needs of the Authority. The Board of Directors monitors the “Operating Surplus” and “Other income and gains - net” on a regular basis. The Board monitors the major capital expenditure which is strategic in nature and may draw on reserves.

There were no changes in the capital management approach during the year.

The Authority is not subject to externally imposed capital requirements.

#### 13. Share capital

Share capital refers to equity injections by the Minister for Finance (“MOF”) in its capacity as shareholder under the Capital Management Framework for statutory boards, implemented with effect from 1 September 2004.

#### 14. Employment benefits

	2022	2021
	\$	\$
Beginning of financial year	-	-
Provision made	94,931	18,147
Provision utilised	(94,931)	(18,147)
End of financial year	<u>-</u>	<u>-</u>

The Authority operates an unfunded employment benefit plan for a limited pool of employees under the provisions of the Pensions Act 1956. Benefits are payable based on the last drawn salary of the employees and the number of years of service with the Authority.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

15. Deferred capital grant

	2022 \$	2021 \$
Beginning of financial year	13,784,451	15,093,927
Amortisation to income	(1,309,476)	(1,309,476)
End of financial year	<u>12,474,975</u>	<u>13,784,451</u>

The above represents the unamortised portion of Government grant received in connection with specific property, plant and equipment acquired by the Authority.

16. Lease liabilities

	2022 \$	2021 \$
Maturity Analysis:		
Year 1	4,125,937	6,135,845
Year 2	3,793,466	4,081,919
Year 3	3,332,406	3,737,229
Year 4	3,104,814	3,304,472
Year 5	1,753,403	3,104,814
Year 6 onwards	139,448	1,892,851
	<u>16,249,474</u>	<u>22,257,130</u>
Less: Unearned interest	(1,091,836)	(1,710,501)
	<u>15,157,638</u>	<u>20,546,629</u>
Analysed as:		
Current	3,717,590	5,553,508
Non-current	11,440,048	14,993,121
	<u>15,157,638</u>	<u>20,546,629</u>

The Authority leases building structures, plant, machinery and equipment and floating craft. which are used in the Authority's operations. There are no externally imposed covenant on these lease arrangements.

Reconciliation of lease liabilities from financing activities

	Beginning of the year	Principal and interest payments	Non-cash changes			End of the year
			Addition during the year	Modification of lease liabilities	Interest expense	
	\$	\$	\$	\$	\$	\$
2022	20,546,629	(6,130,599)	99,899	57,325	584,384	15,157,638
2021	23,996,074	(6,833,532)	2,589,171	55,520	739,396	20,546,629



THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

16. Lease liabilities (continued)

	2022 \$	2021 \$
(a) Lease expense not capitalised in lease liabilities		
Lease expense – short term and low value lease	<u>2,718,834</u>	<u>2,627,799</u>
(b) Total cash outflow for all the leases	<u>8,265,049</u>	<u>8,721,935</u>
(c) Future cash outflow which are not capitalised in lease liabilities		
Extension options		

The leases for certain ROU assets contain extension periods, for which the related lease payments had not been included in lease liabilities as the Authority is not reasonably certain to exercise these extension option. The Authority negotiates extension options to optimise operational flexibility in terms of managing the assets used in the Authority's operations. The extension options are exercisable by the Authority and not by the lessor.

17. Trade and other payables

	2022 \$	2021 \$
Trade payables	3,697,686	4,183,306
Payables on purchase of financial instruments	26,657,483	112,943
Accrued capital expenditure	24,493,851	7,201,035
Accrued operating expenses	43,565,280	31,707,289
Other payables	<u>943,497</u>	<u>2,984,865</u>
	<u>99,357,797</u>	<u>46,189,438</u>

Trade payables are mainly denominated in Singapore Dollar, which is the Authority's functional currency. Payables on purchase of financial instruments, managed by fund managers, are mainly denominated in Singapore Dollar.

Accrued operating expenses include accrual for performance bonus and group bonus of \$15,166,486 (2021: \$13,741,774) and accrued administrative fee payable to the fund managers and custodian bank amounting to \$677,695 (2021: \$677,626).

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NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

17. Trade and other payables (continued)

The following are the expected contractual undiscounted cash outflows of the financial liabilities, including interest payments:

	2022 \$	2021 \$
<b>Undiscounted cash flows within 1 year</b>		
<b>Non-derivative financial liabilities</b>		
Trade and other payables	<u>(99,357,797)</u>	<u>(46,189,438)</u>

18. Advances, deposits and unearned income

	2022 \$	2021 \$
Advances and deposits	5,791,058	6,603,724
Unearned operating lease income [Note (a)]	3,545,142	4,432,663
Unearned annual port dues and Maritime Welfare Fee [Note (b)]	429,576	1,382,434
	<u>9,765,776</u>	<u>12,418,821</u>

(a) Unearned operating lease income mainly relates to sub-lease of properties to third party for a period of 6 years (2021: 5 to 6 years), of which payments were received in advance.

(b) Unearned annual port dues and Maritime Welfare Fee relate to specific customers under annual and 6-months port dues schemes, and the advance payments of Maritime Welfare Fee. These customers, whose ships that call frequently at the port are allowed to pay port dues on an annual or 6-months basis in advance instead of on a per-call basis.

Deposits due within 1 year approximate their carrying amount of \$5,506,664 (2021: \$6,207,039).

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

19. Operating revenue

	2022 \$	2021 \$
<b>Timing of revenue recognition</b>		
<u>SB-FRS 115 revenue</u>		
Over time		
- Dues, licence & permit fees, and agency fee	211,341,638	182,779,687
- Annual Administrative Fee	1,223,612	1,334,280
- Training	694,925	422,094
At a point in time		
- Other marine services	73,498,504	80,208,950
- Shipping services	6,064,395	5,937,797
<u>Non SB-FRS 115 revenue</u>		
- Rental income	2,855,326	2,897,415
- Miscellaneous revenue	1,207,495	247,869
	<u>296,885,895</u>	<u>273,828,092</u>

To help the maritime industry weather the crisis due to the COVID-19 outbreak, MPA rolled out stimulus economic packages which were first announced on 18 February 2021 under the overall Singapore Budget and later on 26 March 2021 as part of the Resilience Budget. These included rental rebates, public license fee waivers and port dues concessions. MPA also rolled out MaritimeSG Together Package which took effect from 1 May 2020 to 31 December 2021 and subsequently extended to 30 June 2022, to provide targeted financial support for maritime companies, individuals and seafarers, on top of economic relief measures announced earlier. These initiatives bring the total expected relief measures for the maritime industry to \$36 million.

20. Staff cost

	2022 \$	2021 \$
Wages and salaries	82,744,015	79,189,050
Employer's contribution to Central Provident Fund	11,695,301	11,582,303
Employer's contribution to other defined benefit plans (Note 14)	94,931	18,147
Other benefits	6,561,789	7,886,348
	<u>101,096,036</u>	<u>98,675,848</u>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

21. Other operating expenses

	2022 \$	2021 \$
Project grants	31,960,259	23,349,183
Contribution to Maritime Cluster Fund projects	11,061,613	13,492,888
Contribution to International Organisations	3,966,423	4,189,750
Transport & travel	2,123,117	644,513
Rental expense	2,718,834	2,627,799
Property tax	1,236,070	1,150,839
Telecommunication	2,361,077	2,414,796
Water cost & water sales service fee	1,550,509	1,018,945
Utility charges	1,480,673	1,115,590
Events & publicity	5,423,340	4,880,289
Professional & consultancy fees	8,613,971	9,494,530
Other administrative expenses	7,759,540	7,819,802
Other miscellaneous expenses	1,412,778	1,905,536
	<u>81,668,204</u>	<u>74,104,460</u>

22. Other (losses)/gains- net

	2022 \$	2021 \$
<b>Investment (losses)/gains- net</b>		
Dividend income	3,735,655	3,580,249
Interest income	12,940,969	10,206,170
Fair value (loss)/gain on investment - realised	(32,192,334)	22,939,207
Fair value loss on investment - unrealised	(84,055,106)	(3,978,126)
Gain/(loss) on foreign exchange - net	3,827,953	(181,361)
Other investment expenses	(2,991,734)	(3,001,975)
Investment (losses)/gains from funds with fund managers - net	(98,734,597)	29,564,164
<b>Non-investment (losses)/gains - net</b>		
Interest income	1,735,924	819,495
(Loss)/gain on foreign exchange - net	(640,908)	52,262
Loss on disposal of property, plant and equipment - net	(335,009)	(31,478)
Others - net	63,900	3,761,513
Non-investment gains - net	823,907	4,601,792
	<u>(97,910,690)</u>	<u>34,165,956</u>

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

#### 23. Contribution to Consolidated Fund

The contribution to the Consolidated Fund is made in accordance with Section 3(a) of the Statutory Corporations (Contributions to Consolidated Fund) Act 1989. For the financial year ended 31 December 2022, no provision was made for the contribution to Consolidated Fund as the Authority had a net deficit for the year. For the financial year ended 31 December 2021, the contribution was based on 17% of the surplus for that year.

	2022 \$	2021 \$
Beginning of financial year	11,632,142	18,746,477
Amount contributed	(11,632,142)	(18,746,477)
Provision for the year	-	11,632,142
End of financial year	-	11,632,142

#### 24. Derivative financial instruments

The Authority places its surplus funds with fund managers to manage its investment portfolio under a balanced mandate. These fund managers are given discretion in managing their portfolio, subject to the investment guidelines set out in the fund management agreements.

As part of risk management activities, the fund managers use financial derivatives for hedging purposes. Hedge accounting is not applied.

The financial derivatives used include financial futures, options and forward foreign exchange contracts.

Fair Value	2022 \$	2021 \$
<b>Asset</b>		
Derivatives		
- Futures contracts	3,309,589	1,513,444
- Forward contracts and options	8,579,638	9,170,958
	<u>11,889,227</u>	<u>10,684,402</u>
<b>Liabilities</b>		
Derivatives		
- Futures contracts	(1,664,164)	(549,104)
- Forward contracts and options	(4,413,539)	(2,468,235)
	<u>(6,077,703)</u>	<u>(3,017,339)</u>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

24. Derivative financial instruments (continued)

As at balance sheet date, the notional amounts of the above financial derivatives held by the fund managers are as follows:

	2022	2021
	\$	\$
<b>Notional amounts</b>		
Futures contracts		
- Gross inflow	63,976,319	63,497,255
- Gross outflow	(569,715,261)	(43,216,818)
Forward contracts and options		
- Gross inflow	803,727,995	945,626,717
- Gross outflow	(803,727,995)	(945,471,527)

25. Commitments

(a) Capital commitments

Capital expenditures contracted for at the balance sheet date but not recognised in the financial statements are as follows:

	2022	2021
	\$	\$
Property, plant and equipment	33,394,350	40,036,317

(b) Operating lease commitments - Where the Authority is a lessor:

Operating leases, in which the Authority is the lessor, relates to rental space and buildings owned by the Authority with lease terms of between 1 year to 30 years (2021: 1 year to 30 years). The lessee does not have the option to purchase the property at the expiry of the lease period.

Maturity analysis of operating lease payments to be received:

	2022	2021
	\$	\$
Maturity Analysis:		
Year 1	2,797,236	1,552,341
Year 2	2,788,428	914,935
Year 3	2,304,578	914,935
Year 4	631,003	914,935
Year 5	402,650	631,003
Year 6 onwards	31,200	445,504
Total	8,955,095	5,373,653

During the year ended 31 December 2022, the Authority recognised \$2,855,326 (2021: \$2,783,415) of rental income from non-cancellable operating leases.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 26. Financial risk management

##### *Financial risk factors*

The Authority's activities expose it to market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk.

Risk management is integral to the whole operations of the Authority. The Authority has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Authority's risk management process to ensure that an appropriate balance between risk and control is achieved.

##### *Funds with fund managers*

In connection with the funds placed with fund managers, the funds placed with fund managers are exposed to a variety of financial risk: credit risk, liquidity risk and market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk).

The fund managers appointed under the balanced mandate are held responsible in achieving the investment objectives set forth in their respective fund manager agreements entered with the Authority. All income and realised capital gains are to be reinvested by the fund managers unless otherwise instructed by the Authority.

The fund managers' overall risk management programme seeks to maximise the returns derived for the level of risk to which they are exposed and seeks to minimise the potential adverse effects on the fund managers' financial performance.

A significant proportion of the Authority's security investments present a risk of loss of capital. The maximum loss of capital is represented by the carrying values of those security investments.

The management of these risks carried out by the fund managers is governed by the mandate set forth in the fund manager agreements approved by the Investment Committee of the Authority. The mandate provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, the use of derivative and non-derivative financial instruments.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

Funds with fund managers (continued)

(a) Market risk

(i) Currency risk

The Authority invests in financial instruments and enters into transactions denominated in currencies other than its functional currency. Consequently, the Authority is exposed to risks that the exchange rate of its functional currency relative to other foreign currencies may change in a manner that has an adverse effect on the value of that portion of the Authority's assets or liabilities denominated in currencies other than the functional currency.

The financial assets managed by fund managers denominated in currencies other than the Authority's functional currency comprise the following:

	2022 \$	2021 \$
British pound sterling	26,063,062	17,416,439
Canadian dollar	15,596,877	72,243,969
Euro	96,202,455	65,860,965
Japanese yen	23,687,983	30,344,843
Swiss franc	5,220,271	8,826,663
United States dollar	438,529,470	491,957,151
Various other foreign currencies	38,199,736	33,791,789
	<u>643,499,854</u>	<u>720,441,819</u>

At the balance sheet date, if there is a +/-5% movement in exchange rates relative to the Singapore Dollar, with all other variables held constant, the increase/(decrease) in the fair value of financial assets in income or expenditure would be as follows:

	2022 \$	2021 \$
<b>+5% scenario</b>		
Income or expenditure	<u>32,174,993</u>	36,022,091
<b>-5% scenario</b>		
Income or expenditure	<u>(32,174,993)</u>	(36,022,091)



THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

(a) Market risk (continued)

(ii) Interest rate risk

Interest rate risk arises from the effects of fluctuations in the prevailing levels of market interest rates on the fair value of financial assets and liabilities and future cash flows. The Authority holds debt securities and derivatives that expose the Authority to fair value interest rate risk.

*FVTPL debt securities, managed by fund managers*

At the balance sheet date, assuming that all other variables are held constant and no loss event has occurred, a 100 basis point increase/(decrease) in the interest rate would (decrease)/increase the fair values of the financial assets in income or expenditure by the following amounts:

	2022 \$	2021 \$
<b>+100 basis point scenario</b>		
Income or expenditure	<u>(25,330,308)</u>	<u>(28,461,043)</u>
<b>-100 basis point scenario</b>		
Income or expenditure	<u>28,082,127</u>	<u>32,599,918</u>

At the balance sheet date, assuming that all other variables are held constant, a 100 basis point increase/(decrease) in interest rate would increase/(decrease) the interest income of the floating rate debt securities recorded in income or expenditure by the following amounts:

	2022 \$	2021 \$
<b>+100 basis point scenario</b>		
Income or expenditure	<u>102,303</u>	<u>176,731</u>
<b>-100 basis point scenario</b>		
Income or expenditure	<u>(102,303)</u>	<u>(176,731)</u>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

(a) Market risk (continued)

(ii) Interest rate risk (continued)

*Derivatives (futures), managed by fund managers*

At the balance sheet date, if interest rates had been 100 basis point higher/(lower) with all other variables held constant, the increase/(decrease) in the fair values of the interest rate derivatives in the income or expenditure would be as follows:

	2022 \$	2021 \$
<b>+100 basis point scenario</b>		
Income or expenditure	<u>2,372,317</u>	<u>5,134,387</u>
<b>-100 basis point scenario</b>		
Income or expenditure	<u>(2,623,567)</u>	<u>(6,388,092)</u>

The fair values at balance sheet date of the debt securities held by the fund managers and the period in which they mature or reprice are as follows:

	2022 \$	2021 \$
<b>Fixed rate</b>		
Maturing in less than 1 year	28,977,816	115,216,565
Maturing between 1 to 5 years	275,267,403	102,078,349
Maturing in more than 5 years	173,220,510	217,551,773
<b>Floating rate</b>		
Repricing in less than 3 months	14,906,554	13,758,376
Repricing in between 3 to 6 months	18,668,755	4,915,749
Repricing in more than 6 months	2,474,696	11,635,120
	<u>513,515,734</u>	<u>465,155,932</u>

As at 31 December 2022, the financial instruments held by the Authority are referenced to inter-bank offered rates ("IBOR") and have not yet transitioned to new benchmark rates. These instruments will mature before the replacement of IBOR.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

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26. Financial risk management (continued)

(a) Market risk (continued)

(iii) Equity price risk

The Authority is exposed to equity price risk. This arises from investments held by the Authority for which prices in the future are uncertain. Where equity securities are denominated in currencies other than the functional currency of the Authority, the price initially expressed in foreign currency and then converted into the functional currency will also fluctuate because of changes in foreign exchange rates. Paragraph (a)(i) "Currency risk" sets out how this component of price risk is managed and measured.

The Authority's policy to manage price risk is via diversification and selection of securities and other financial instruments within specified limits set by the Investment Committee. The majority of the Authority's equity investments is publicly traded. The overall market position of these equity investments is monitored on a daily basis by the fund managers and is reviewed on a quarterly basis by the members of the Investment Committee. Compliance with the Authority's fund management mandate is reported to the members of the Investment Committee on a quarterly basis.

At the balance sheet date, assuming that all other variables are held constant, a 5% increase/(decrease) in the underlying equity prices would increase/(decrease) the Authority's net surplus for the year by the following amounts:

	2022	2021
	\$	\$
<b>+5% scenario</b>		
<b>Equity securities, managed by fund managers</b>		
Income or expenditure	<u>8,516,835</u>	<u>12,792,368</u>
<b>-5% scenario</b>		
<b>Equity securities, managed by fund managers</b>		
Income or expenditure	<u>(8,516,835)</u>	<u>(12,792,368)</u>

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

(b) Credit risk

The Authority's current credit risk grading framework comprises the following categories:

Category	Description	Basis for recognising expected credit losses (ECL)
Performing	The counterparty has a low risk of default and does not have any past-due amounts.	12-month ECL
Doubtful	Amount is >30 days past due or there has been a significant increase in credit risk since initial recognition.	Lifetime ECL - not credit-impaired
In default	Amount is >90 days past due or there is evidence indicating the asset is credit-impaired.	Lifetime ECL - credit-impaired
Write-off	There is evidence indicating that the debtor is in severe financial difficulty and the Authority has no realistic prospect of recovery.	Amount is written off

The table below details the credit quality of the Authority's financial assets as well as maximum exposure to credit risk by credit risk rating grades:

	Note	Internal credit rating	12-month or lifetime ECL	Gross carrying amount \$	Loss allowance \$	Net carrying amount \$
<b>2022</b>						
Trade receivable	9	(i)	Lifetime ECL (simplified approach)	42,176,084	205,159	41,970,925
Other receivables	10	Performing	12-month ECL	10,397,606	-	10,397,606
					<u>205,159</u>	

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NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

(b) Credit risk (continued)

	Note	Internal credit rating	12-month or lifetime ECL	Gross carrying amount \$	Loss allowance \$	Net carrying amount \$
<b>2021</b>						
Trade receivable	9	(i)	Lifetime ECL (simplified approach)	40,531,437	274,334	40,257,103
Other receivables	10	Performing	12-month ECL	9,404,387	-	9,404,387
					<u>274,334</u>	

- (i) The Authority determines the expected credit losses on these items by using a provision matrix, estimated based on historical credit loss experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions.

The Authority has adopted procedures in extending credit terms to customers and in monitoring its credit risk. The Authority only grants credit to creditworthy counterparties. Cash is held with creditworthy institutions and is subject to immaterial credit loss.

Although the Authority's credit exposure is concentrated mainly in Singapore, it has no significant concentration of credit risk with any single customer or group of customers.

*Funds with fund managers*

Credit risk is the risk that a counterparty to a financial instrument will fail to discharge an obligation or commitment that it has entered into with the Authority. The fund manager has a credit policy in place and the exposure to credit risk is monitored on an on-going basis.

As at 31 December 2022, the following financial assets were exposed to credit risk: investment in equity and debt securities, receivables on sale of financial instruments, cash and cash equivalents, derivative financial assets and other receivables. The total carrying amount of financial assets exposed to credit risk amounted to \$963,510,862 (2021: \$1,032,769,042).

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 26. Financial risk management (continued)

##### (b) Credit risk (continued)

The Authority limits its credit risk exposure in respect of investments in debt securities by restricting the fund managers to invest in debt securities that have a sound credit rating from Standard & Poor's and Moody's (at least BBB- by the former or Baa3 by the latter, on the lower rating of both in the event of split ratings). Given these credit ratings, management does not expect any counterparty to fail to meet its obligations.

The maximum exposure to credit risk is represented by the carrying amount of each financial asset on the balance sheet.

##### (c) Liquidity risk

The Authority monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Authority's operations and to mitigate the effects of fluctuations in cash flows.

##### *Funds with fund managers*

The Authority's listed debt and equity securities are considered readily realisable, as they are listed on the major stock exchanges. The fund managers are required to comply with the restrictions and limitations as stipulated in the investment mandate. All transactions carried out by the fund managers are settled daily through the Authority's custodian of the portfolio of investments placed by fund managers.

The fund managers may periodically invest in some debt securities and derivative contracts on behalf of the Authority that are traded over the counter, which are not traded in an organised market and may be illiquid. As a result, the Authority may not be able to liquidate its investments in these instruments at an amount close to their fair value to meet its liquidity requirements or be able to respond to specific events such as the deterioration in the creditworthiness of any particular issuer.

At the balance sheet date, non-derivative financial liabilities held by the Authority are as disclosed in Note 16, 17 and 18.

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

*For the financial year ended 31 December 2022*

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#### 26. Financial risk management (continued)

##### (d) Fair value measurements

The following presents assets and liabilities measured and carried at fair value and classified by level of the following fair value measurement hierarchy:

- (a) quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1);
- (b) inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices) (Level 2); and
- (c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (Level 3).

The fair value of financial instruments traded in active markets (the Authority's equity and debt securities managed by fund managers) is based on quoted market prices at the balance sheet date. The quoted market price used for financial assets held by the Authority is the current bid price. These instruments are classified as Level 1.

##### *Derivatives used by fund managers*

Futures contracts are marked to market daily using listed market prices with any gains or losses posted to the related variation margin accounts.

The fair value of forward exchange contracts is based on their listed market price and the fair value of options are based on quotations from independent third party vendors and sources that apply fair value techniques. These instruments are classified as Level 2.

There were no transfers between Levels 1 and 2 during the year.

The fair values of current financial assets and liabilities carried at amortised cost approximate their carrying amounts.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

26. Financial risk management (continued)

(e) Financial instruments by category

The carrying amounts of the different categories of financial instruments are as follows:

	2022 \$	2021 \$
Financial assets, at amortised cost	819,480,263	821,381,051
Financial assets, at FVTPL	756,917,303	801,092,870
Financial liabilities, at amortised cost	120,306,493	73,339,791
Financial liabilities, at FVTPL	<u>6,077,703</u>	<u>3,017,339</u>

27. Related party transactions

In addition to the information disclosed elsewhere in the financial statements, the following transactions took place between the Authority and related parties at terms agreed between the parties.

(a) Sales of services

	2022 \$	2021 \$
Provision of dumping and monitoring services to Statutory Boards	20,733,648	30,011,183
Provision of agency and project management services to a Ministry	6,752,513	8,658,218
Provision of private wharfage services to a Statutory Board	<u>3,429,804</u>	<u>3,171,724</u>

(b) Key management personnel compensation

Key management personnel of the Authority are those persons having the Authority and responsibility for planning, directing and controlling the activities of the Authority. These key management personnel comprise the Board of Members and Executive Management Team of the Authority.



THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

27. Related party transactions (continued)

(b) Key management personnel compensation (continued)

Key management personnel compensation is as follows:

	2022 \$	2021 \$
Salary and short-term employee benefits	7,166,878	6,232,659
CPF contributions	377,654	322,258
Directors' fees	206,703	219,390
	<u>7,751,235</u>	<u>6,774,307</u>

28. Funds managed/held on behalf of others - Funds held in trust

Funds held in trust and managed by the Authority comprise the following:

	2022 \$	2021 \$
Straits of Malacca and Singapore Revolving Fund Committee	4,272,317	-
Singapore Stranded Seafarers' Fund	344,101	342,812
Agency funds held in trust of Ministry of Transport	2,443,615	8,281,205
	<u>7,060,033</u>	<u>8,624,017</u>

*Straits of Malacca and Singapore Revolving Fund Committee ("RFC")*

- (a) A memorandum of understanding between the Governments of Indonesia, Malaysia and Singapore on the one part and the Malacca Strait Council for and on behalf of the Japanese Non-Governmental Associations on the other part was signed on 11 February 1981 for the establishment and operation of a Revolving Fund to combat oil pollution from ships in the Straits of Malacca and Singapore. The amount of the Revolving Fund is contributed by the Japanese Non-Governmental Associations. The administration and operation of the Fund shall be undertaken by an authority appointed by the Littoral States of Indonesia, Malaysia and Singapore on a rotational basis for a period of 5 years each. For this purpose, the Authority has been appointed by the Government of Singapore to manage the Fund for a 5-year period from 1 April 2022 to 31 March 2027.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

28. Funds managed/held on behalf of others - Funds held in trust (continued)

(b) The assets and liabilities of the RFC Fund as at 31 December are as follows:

	2022 \$
<b>Accumulated fund</b>	<u>4,272,317</u>
<b>Current assets</b>	
Interest receivable	13,951
Cash and cash equivalents	<u>4,293,349</u>
	4,307,300
<b>Current liabilities</b>	
Accruals	<u>(34,983)</u>
<b>Net Assets</b>	<u>4,272,317</u>

(c) The results of the RFC Fund for the year ended 31 December are as follows:

	2022 \$
Interest income	14,486
Funds disbursed	(35,869)
Unrealised foreign exchange loss	<u>(33,284)</u>
Deficit for the year	(54,667)
Funds received from Malaysia	<u>4,326,984</u>
Accumulated fund as at 31 December	<u>4,272,317</u>

*Singapore Stranded Seafarers' Fund ("SSSF")*

(a) The SSSF was set up in September 1999 (following the Authority's Board approval for its creation at an earlier board meeting in July 1999). The SSSF is managed by a Committee made up of representatives from the Authority and the unions, namely Singapore Maritime Officers' Union and Singapore Organisation of Seamen.

The Fund is humanitarian in nature. It shall be used only as a last resort when it becomes evidently clear that the ship owners concerned are no longer able to bear responsibility towards their ship crew, e.g. due to insolvency. It is used mainly to buy fuel (i.e. to run the ship's generators) and provide food and portable water to sustain the stranded ship crew onboard Singapore-registered ships stranded in Singapore or overseas, until such time they are repatriated or the dispute is settled.

THE MARITIME AND PORT AUTHORITY OF SINGAPORE

NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

28. Funds managed/held on behalf of others - Funds held in trust (continued)

(b) The assets and liabilities of the SSSF as at 31 December are as follows:

	2022 \$	2021 \$
<b>Accumulated fund</b>	<b>344,101</b>	342,812
<b>Current assets</b>		
Interest receivable	895	640
Cash and cash equivalents	343,206	342,172
	<b>344,101</b>	342,812

(c) The results of the SSSF for the year ended 31 December are as follows:

	2022 \$	2021 \$
Interest income	1,289	1,092
Surplus for the year	1,289	1,092
Accumulated fund as at 1 January	342,812	341,720
Accumulated fund as at 31 December	<b>344,101</b>	342,812

*Agency funds held in trust of Ministry of Transport*

(a) On 11 March 2005, the Authority was appointed by Ministry of Transport ("MOT") as its managing agent in connection with the proposed land reclamation at Pasir Panjang Terminal Phases 3 and 4 and Tuas Port.

(b) The assets and liabilities of the agency funds held in trust as at 31 December are as follows:

	2022 \$	2021 \$
<b>Accumulated fund</b>	<b>2,443,615</b>	8,281,205
<b>Current assets</b>		
Cash at bank	2,613,411	8,071,197
Amount due from various Government bodies	14	5
GST receivable	35,370,041	9,567,205
	<b>37,983,466</b>	17,638,407
<b>Current liabilities</b>		
GST payable	(35,539,851)	(9,357,202)
<b>Net assets</b>	<b>2,443,615</b>	8,281,205

## THE MARITIME AND PORT AUTHORITY OF SINGAPORE

### NOTES TO THE FINANCIAL STATEMENTS

For the financial year ended 31 December 2022

#### 28. Funds managed/held on behalf of others - Funds held in trust (continued)

- (c) The results of the agency funds held in trust for the year ended 31 December are as follows:

	2022	2021
	\$	\$
Grants received	738,753,694	542,710,811
Interest income	91,327	105,922
	<u>738,845,021</u>	<u>542,816,733</u>
Grants disbursed	(738,414,236)	(564,243,973)
Agency fees paid/payable	(6,268,375)	(8,195,269)
Surplus for the year	(5,837,590)	(29,622,509)
Accumulated fund as at 1 January	8,281,205	37,903,714
Accumulated fund as at 31 December	<u>2,443,615</u>	<u>8,281,205</u>

#### 29. New or revised accounting standards and interpretations

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2022 reporting periods and have not been early adopted by the Company. These standards are not expected to have a material impact on the Company in the current or future reporting periods and on foreseeable future transactions.

#### 30. Authorisation of financial statements

These financial statements were authorised for issue by the Board of Members on 23 March 2023.



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