



MPA
SINGAPORE

ANNUAL REPORT 2025

Securing Singapore's Maritime Future



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About MPA

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

MPA takes on multiple roles as Singapore's maritime and port regulator and planner, international maritime centre champion, national maritime representative, and champion of maritime digitalisation and decarbonisation efforts.

MPA partners industry, the research community and other agencies to enhance safety, security and environmental protection, facilitate maritime and port operations and growth, expand multi-domain capabilities, and support the cluster of maritime services and manpower development.

CHAIRMAN'S MESSAGE



It was a turbulent 2025 for the maritime sector, with geopolitical tensions disrupting key shipping routes. Decarbonisation in international shipping made uneven progress despite being widely recognised to be an urgent need. Competition among maritime centres also intensified, as jurisdictions refine policies to attract capital and talent.

Amidst this challenging environment, Maritime Singapore continued to perform strongly, with new highs in vessel arrival gross tonnage, container throughput and bunker sales, and a record number of ships in the Singapore Registry of Ships. This performance reflected the robustness and reliability of our maritime ecosystem and the continued recognition of Singapore as a leading global maritime centre.

The maritime community's trust in Singapore as a responsible and constructive maritime nation was reflected in our re-election to the International Maritime Organization (IMO) and election to the Council of the International Organization of Marine Aids to Navigation (IALA). Our consistently high standing in international indices, such as the Xinhua-Baltic International Shipping Centre Development Index, DNV-Menon's inaugural Leading Container Ports of the World report, and Asian Freight,



Singapore's vibrant maritime ecosystem offers predictability, rule of law, regulatory clarity, trusted dispute resolution, strong financing and insurance capabilities, and a dense cluster of global shipping groups and maritime services.

Mr Loh Khum Yean

Logistics and Supply Chain Awards, underscored our position as a leading maritime hub.

Singapore's vibrant maritime ecosystem offers predictability, rule of law, regulatory clarity, trusted dispute resolution, strong financing and insurance capabilities, and a dense cluster of global shipping groups and maritime services. Companies have the confidence to anchor long-term operations here, especially in a time of global volatility. Over 35 maritime companies opened or expanded their presence in Singapore in 2025.

We also made good progress in the development of Tuas Port. About 80 per cent of reclamation works for Phase 2 has been completed. The planning for Phase 3 is underway. When completed in the 2040s, Tuas Port will have a capacity of 65 million Twenty-Foot Equivalent Units (TEUs), and will be the world's largest fully-automated container terminal. Tuas Port will strengthen Singapore's position as a next-generation hub port, designed for scale, efficiency and sustainability.

We also made further progress in digitalisation and decarbonisation. The launch of the Maritime Digital Twin, the establishment of Green and Digital Shipping Corridors with China, India and Republic of Korea, as well as continued work on pathways for alternative fuels, among other greening efforts, will position Maritime Singapore well to deal with the challenges on the horizon.

With the operating environment expected to become more volatile, we stay focused on expanding our expertise and capabilities. Our vision for Maritime Singapore will be set out in a masterplan which will be developed over the coming year. Maritime Singapore matters because it connects Singapore to the world and the world to Singapore. We look forward to the continued strong support of our partners and stakeholders so that Singapore will remain a competitive and trusted global maritime hub.

CHIEF EXECUTIVE'S MESSAGE



The operating environment in 2025 continued to be challenging, with heightened geopolitical tensions and prolonged disruptions in major trade routes. Uncertainty around the IMO Net-Zero Framework made fleet renewal and investments globally more complex.

Despite these challenges, Maritime Singapore achieved strong results. Vessel arrivals hit a record 3.22 billion gross tonnage (GT), container throughput rose 8.6 per cent to a record 44.66 million TEUs, and bunker sales increased to 56.77 million tonnes, including growth in alternative fuels. Business spending by key maritime companies remained robust at around S\$5 billion. The Singapore Registry of Ships expanded to 137.46 million GT.

We also strengthened the systems that enable maritime companies to operate with confidence in Singapore. Following arrests by regional authorities, sea robbery incidents in the Straits of Malacca and Singapore (SOMS) dropped from an average of 13 incidents a month from January to July 2025, to fewer than three a month from August to December 2025. This improvement reflected the importance of timely information-sharing and coordinated responses by littoral states and industry under cooperative mechanisms like the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP).



In a more uncertain environment, our shared resolve remains key to sustaining Maritime Singapore's performance and relevance.

Mr Ang Wee Keong

The same cooperation has been equally important for maritime safety. The Maritime Rescue Coordination Centre (MRCC) facilitated multiple search and rescue operations in 2025. This included saving 18 crew members from the freighter *Dolphin 18* in January and another 30 individuals from the capsized fishing vessel *Facific Memory II* in May. These efforts underscored Singapore's commitment to maritime safety and emergency response.

MPA continued to improve our processes to make it easier to do business in Singapore. We introduced AI-enabled processing to streamline ship insurance certificates, financial security declarations and ship name reservations. An integrated portal for Maritime Sector Incentive schemes will further simplify access to support measures for maritime enterprises.

We also continued to support companies and start-ups through programmes such as the SME Digital Adoption Pilot and PIER71™. PIER71™ has supported the incubation of nearly 170 start-ups and raised over S\$130 million in investments since 2018. Our commitment to innovation was bolstered by the establishment of new technology hubs, including the American Bureau of Shipping (ABS) Singapore Maritime Safety Centre, the Bureau Veritas-Singapore Institute of Technology (BV-SIT) Centre for Maritime Electrification, and the RINA Technology Demonstration Centre.

Singapore remains committed to the decarbonisation of shipping. In 2025, MPA supported the launch of Singapore's first fully electric supply boat and tugboat as well as a higher battery capacity cargo vessel, *Hydromover 2.0*. We published new Technical Reference (TR) 136 for electric harbour craft charging infrastructure, and commenced proof-of-concept trials using fully electric supply boats. MPA also awarded

three methanol bunkering licences and published TR 129 for safe bunkering. For ammonia, a consortium led by Keppel Ltd was appointed to advance power generation and bunkering readiness, with a TR for ammonia bunkering expected to be developed by 2026.

MPA remains committed to harnessing digitalisation to improve safety and efficiency. In 2025, we introduced the Maritime Digital Twin to provide real-time 3-D views of vessel movements and port operations, and the Maritime Testbed of Shipboard Operational Technology (MariOT) system to strengthen crew preparedness against cyber risks.

We streamlined bunker operations and enhanced transparency with the introduction of electronic bunker delivery notes (e-BDNs) as the default process from 1 April 2025. From the second half of 2026, MPA will expand trials of AI-enabled unmanned surface vessels to improve surveillance and hydrographic operations.

Workforce development continues to be a priority. Key efforts included enhancing the pathways for mid-career seafarers under the Tripartite Maritime Training Award, and expanding training in alternative fuels, digital systems and AI-enabled operations to keep our workforce future-ready. The MPA-Singapore Maritime Foundation Joint Office for Talent and Skills, set up in 2024, has also started an applied data

science and analytics course with the National University of Singapore, which attracted 30 professionals from 15 companies. We will roll out more courses to ensure our maritime workforce stays ahead of industry needs.

Our progress in 2025 reflects the collective efforts of our maritime community. MPA extends our appreciation to industry partners, unions and the maritime workforce for their continued commitment and collaboration. In a more uncertain environment, our shared resolve remains key to sustaining Maritime Singapore's performance and relevance.

*Laura Maersk, the world's first
dual-fuel container vessel
operating on methanol*





MEMBERS OF THE AUTHORITY

(as at 31 December 2025)

- 1) **Mr Loh Khum Yean**
Chairman,
Maritime and Port Authority of
Singapore
- 2) **Mr Ang Wee Keong**
Chief Executive,
Maritime and Port Authority of
Singapore
- 3) **Mr Abu Bakar bin Mohd Nor**
Chairman and Director,
M Kapital Holdings Pte Ltd
- 4) **Mr Allen Lew**
Chairman,
Certis Group
- 5) **Ms Mary Liew**
General Secretary,
Singapore Maritime Officers' Union
- 6) **Mr Jermaine Loy**
Managing Director,
Economic Development Board
- 7) **Mr Jeremy Nixon**
Chief Executive,
Ocean Network Express Co. Ltd
- 8) **Mr Chris Ong Leng Yeow**
Chief Executive Officer,
Seatrium Ltd
- 9) **Mr Sng Seow Wah**
Director,
Financial Industry Disputes
Resolution Centre Ltd (FIDRec)
- 10) **A/Prof Simon Tay**
Associate Professor,
Faculty of Law, National
University of Singapore;
Chairman,
Singapore Institute of
International Affairs
- 11) **Mr Teo Teng Seng**
Advisor,
Pacific International Lines
- 12) **RADM Sean Wat**
Chief of Navy,
Republic of Singapore Navy
- 13) **Ms Yeo Siew Eng**
Director,
Keppel DC REIT Management
Pte Ltd
- 14) **Ms Patricia Yim**
Member,
Maritime and Port Authority of
Singapore
- 15) **Mr Chua Kwan Ping**
Senior Director,
Ministry of Transport

SENIOR MANAGEMENT

(as at 31 December 2025)

- | | |
|---|---|
| 1) Mr Ang Wee Keong
Chief Executive | 14) Mr Chua Yeng Hian
Director, Marine Services |
| 2) Mr David Foo
Deputy Chief Executive
(Operations & Technology) /
Chief Data Officer | 15) Ms Ding Lee Yong
Dean, MPA Academy / Director,
Maritime Network &
Partnerships Office |
| 3) Mr Chin Yi Zhuan
Deputy Chief Executive
(Industry and Corporate) | 16) Ms Caroline Goh
Director, Business Capability
Development |
| 4) Capt M Segar
Chief Marine Officer /
Senior Advisor | 17) Mr George Goh
Director,
Communications & Community |
| 5) Mr Tan Hoe Soon
Assistant Chief Executive
(Corporate & Strategy),
Chief Risk Officer | 18) Mr Dennis Khoo
Director, Maritime Systems &
Technology /
Chief Technology Officer |
| 6) Ms Tan Beng Tee
Senior Advisor | 19) Mr Koh Chin Yong
Director, Digital & Data Science /
Chief Information Officer |
| 7) Ms Angela Png
Senior Legal Advisor &
Corporate Secretary | 20) Mr Jason Leong
General Counsel |
| 8) Capt Daknashamoorthy
Ganasen
Senior Director, Marine Safety &
Port Operations | 21) Mr Ng Yi Han
Director, Innovation, Technology
& Talent Development /
Chief Transformation Officer |
| 9) Ms Cindy Sim
Senior Director, Finance,
Procurement & Admin | 22) Mr Ong Chin Beng
Director, Cybersecurity &
Data Governance |
| 10) Ms Tan Woei Tyng
Senior Director, International | 23) Ms Jasmin Tan
Director,
International Maritime Centre |
| 11) Er Tham Wai Wah
Senior Director, Engineering &
Project Management /
Chief Engineer | 24) Mr Vince Tan
Director, Operations
Transformation & Planning |
| 12) Mr Cheah Aun Aun
Director, Shipping / Director,
Marine | 25) Mr Thai Low Ying-Huang
Chief Hydrographer |
| 13) Ms Chua Chen Yun
Director, Internal Audit | 26) Mr Benjamin Wong
Director, Strategy & Policy |
| | 27) Ms Yeo Suat Lay
Director, Human Resource |

CORPORATE GOVERNANCE

(as at 31 December 2025)



Organisation and Structure

MPA is a statutory board under the Ministry of Transport. The Ministry of Transport oversees all the statutory bodies in the transport sector. MPA was established under the Maritime and Port Authority of Singapore Act 1996. 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 and union representatives.

The following Board Committees are also established by the Board to oversee various matters and activities:

- ☒ 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 every two months 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 22 divisions are headed by divisional Directors or Senior Directors, who are responsible for managing the day-to-day operations of their divisions.

SENIOR PERSONNEL BOARD

Chairman

Mr Loh Khum Yean

Members

Mr Ang Wee Keong
Mr Abu Bakar
Ms Patricia Yim

MINT FUND STEERING COMMITTEE

Chairman

Prof Lui Pao Chuen

Members

Mr Ang Wee Keong
Ms Patricia Yim
A/P Simon Tay
Mr Chua Kwan Ping

DATA AND CYBERSECURITY COMMITTEE

Chairman

Mr Loh Khum Yean

Members

Mr Ang Wee Keong
Mr Ong Leng Yeow
RADM Sean Wat
Mr Chua Kwan Ping

IMDA

Ms Aileen Chia

INVESTMENT COMMITTEE

Chairman

Mr Loh Khum Yean

Members

Mr Ang Wee Keong
Mr Allen Lew
Mr Ong Leng Yeow
Mr Sng Seow Wah
Ms Yeo Siew Eng

REGISTRATION COMMITTEE

Chairman

A/P Simon Tay

Members

Ms Mary Liew
Mr Jermaine Loy
Mr Teo Teng Seng

AUDIT REVIEW COMMITTEE

Chairman

Mr Sng Seow Wah

Members

RADM Sean Wat
Ms Yeo Siew Eng
Mr Jermaine Loy
Mr Chua Kwan Ping

Disclosure of Compensation

The fees for the chairperson and members of the Board, and the remuneration of the senior management team are pegged to the guidelines of the Public Service Division.

WELFARE COMMITTEE FOR SEAFARERS

Chairman

Ms Mary Liew

Members

Mr Jeremy Nixon
Mr Allen Lew

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 Norman Chen

— Senior Manager Sustainability and Strategy Management Department

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

2025 PERFORMANCE SUMMARY



- More than **35 maritime companies** established or expanded operations

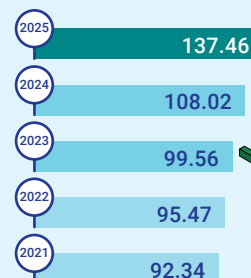
- Total business spending by key maritime companies overseen by MPA:

2025 **S\$5 billion**

2024 **S\$5.2 billion**

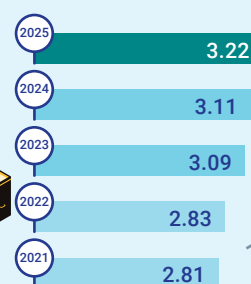
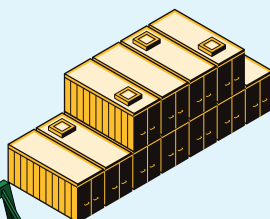
TONNAGE UNDER SINGAPORE REGISTRY OF SHIPS

(million GT)



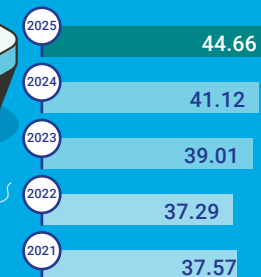
VESSEL ARRIVAL TONNAGE

(billion GT)



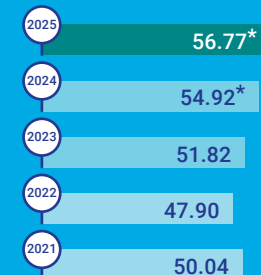
CONTAINER THROUGHPUT

(million TEUs)



BUNKER SALES VOLUME

(million Tonnes)



*2024 and 2025 figures comprise conventional bunker, LNG bunker, biofuel blends bunker, methanol bunker, and ammonia.

CHAPTER 1

Strengthening Singapore's Position as a Safe and Smart Global Hub Port

As the Authority overseeing one of the world's busiest ports, MPA puts the highest priority on the safety, efficiency and resilience of Singapore's port waters and terminal operations. We have increasingly used digital technologies to enhance operational effectiveness and safety preparedness.

Safeguarding our Maritime Future

All Hands on Deck: Protecting Lives at Sea

MPA strengthened our response capabilities for a range of maritime risks by conducting exercises to test our operational responses. We are also upgrading our systems to manage incidents effectively and to enhance the safety of maritime operations in Singapore waters.

Chemspill Exercise

On 15 July 2025, MPA conducted a multi-agency chemical spill exercise simulating a methanol spill caused by a tanker collision. The exercise involved 11 vessels and more than 150 personnel, including community partners. It tested spill containment, evacuation procedures, and the use of advanced technologies, such as the Maritime Digital Twin, drones and Uncrewed Surface Vessels for plume trajectory projection, air-quality monitoring, and chemical plume containment using water curtains.

MPA deployed drones with thermal imaging devices to detect methanol fire



SCDF vessel sprayed "water curtains" to disperse plumes



MPA chemical site team measured methanol concentration in the air to mark out "hot" and "warm" zones

Joint Oil Spill Coordination Tabletop Exercise with Indonesia and Malaysia

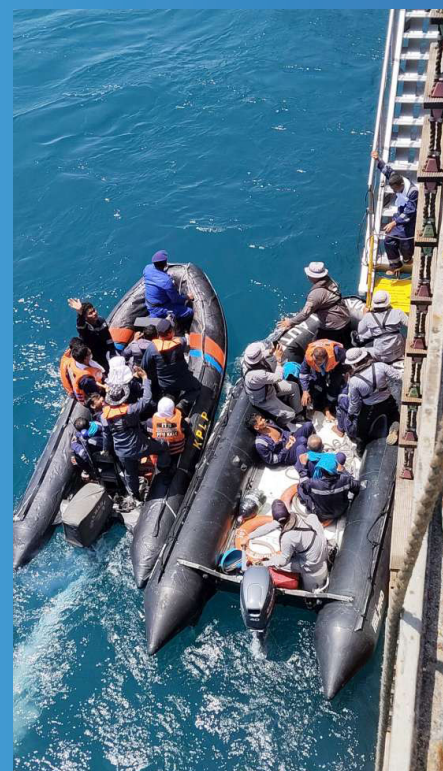


MPA, as chair of the Revolving Fund Committee (RFC), hosted a tabletop exercise with Indonesia and Malaysia on 11 February 2025

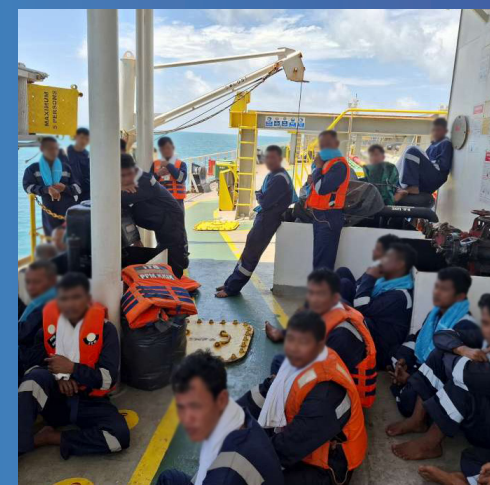


The exercise enhanced regional coordination and joint response capabilities for oil spills in the Straits of Malacca and Singapore (SOMS). Officials from MPA, Indonesia's Directorate General of Sea Transportation, Malaysia's Environment Department, and the International Tanker Owners Pollution Federation participated. The exercise reviewed communication protocols, asset deployment, and coordination between government agencies and commercial responders.

Successful Rescue Operations by the Maritime Rescue Coordination Centre (MRCC)



Rescued persons from the capsized fishing vessel *Facific Memory II* transferred to the Indonesian Coast Guard boat



Rescued persons safely on board the bulk carrier *Andros Spirit*

On 20 May 2025, MPA's Maritime Rescue Coordination Centre (MRCC) Singapore responded when informed that the Indonesian fishing vessel *Facific Memory II* had capsized within the Singapore Maritime Search and Rescue Region.

MRCC Singapore coordinated the search and rescue operation, issued navigational broadcasts to nearby vessels requesting their assistance, and alerted neighbouring MRCCs.

Liberia-registered bulk carrier *Andros Spirit* was directed to the scene shortly after and rescued all 30 persons from the water.

Enhanced Maritime Video Surveillance Coverage

In 2025, MPA expanded the coverage of its Digital Video Surveillance System (DVSS) across port waters. The system provides real-time monitoring and visual confirmation of areas monitored by Singapore's Vessel Traffic Information System (VTIS). The DVSS complements our existing Automatic Identification System (AIS) and radar systems to support incident management and post-incident analysis.



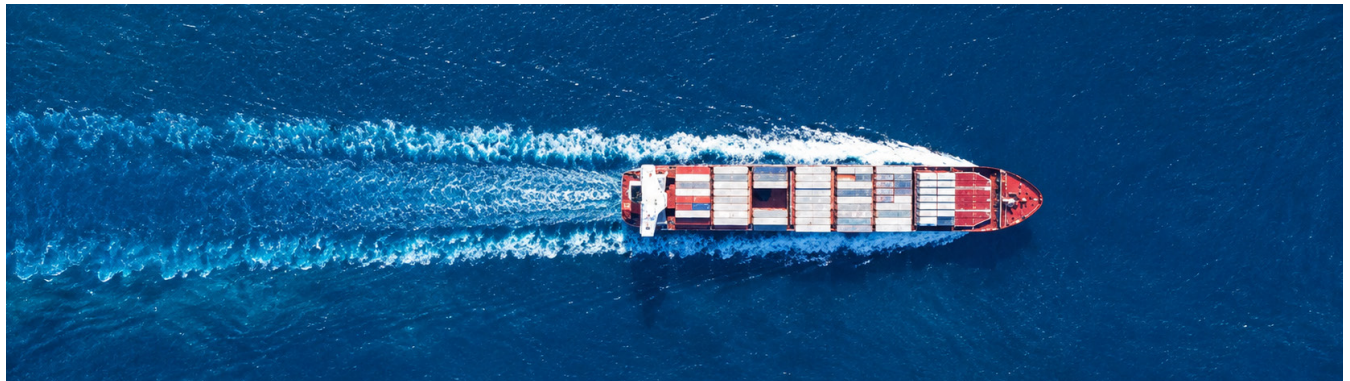
Digital Video Surveillance System (DVSS)



Enhanced Incident and Crisis Management Capabilities

MPA upgraded our Integrated Port Operations Command, Control and Communications (C3) system with geospatial mapping tools and an updated incident management workspace to improve coordination, tasking and deployment in the event of an incident or crisis. MPA is also leveraging our in-house Maritime Digital Twin to simulate and test various scenarios to design safeguards, and develop and evaluate risk mitigation measures.

On the Radar: Detection of Fraudulently Registered Vessels



Fraudulent registration refers to the act of a vessel misrepresenting its nationality by broadcasting, displaying or claiming a flag state without legal registration or authorisation from that country. This is usually done to evade sanctions, conceal illicit cargo, bypass trade restrictions or reduce regulatory scrutiny. Such vessels pose risks to maritime safety, security and the environment.

To combat fraudulent registration, MPA established a screening and verification process, leveraging technologies like Application Programming Interface and Robotic Process Automation. We work closely with vessel masters, agents, and flag administrations to verify registration details before port entry.

Ensuring Safety of Singapore-Registered Ships

As the flag administrator for the Singapore Registry of Ships (SRS), MPA ensures that Singapore-flagged vessels meet international safety standards. The SRS remains on the Port State Control (PSC) whitelists of the Tokyo and Paris Memoranda of Understanding (MoU), and is recognised under the US Coast Guard's QUALSHIP 21 programme.



The SRS has maintained its QUALSHIP 21 status for nine consecutive years since 2017.

The SRS has consistently excelled and maintained its status on the whitelists of both the Tokyo and Paris PSC regimes.

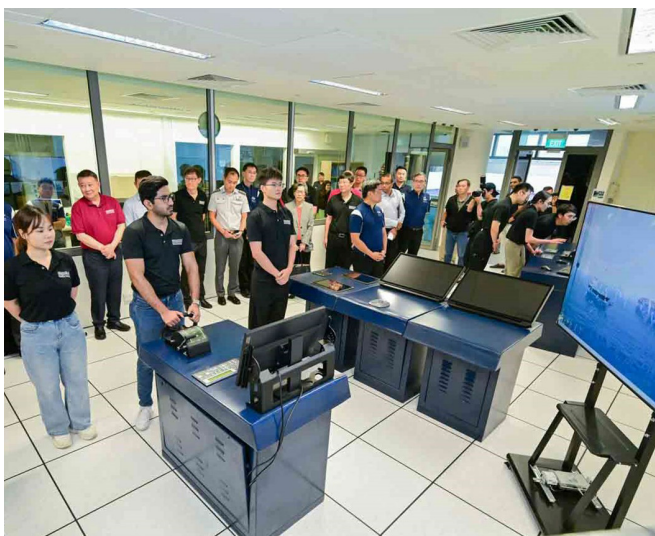
Nearly 600 Singapore-registered vessels are enrolled under the QUALSHIP 21 programme.



Cybersecurity

Cyber risks to vessels have increased as digitalisation and connectivity between ship and shore systems grow. MPA remains committed to strengthening cybersecurity preparedness across the maritime sector.

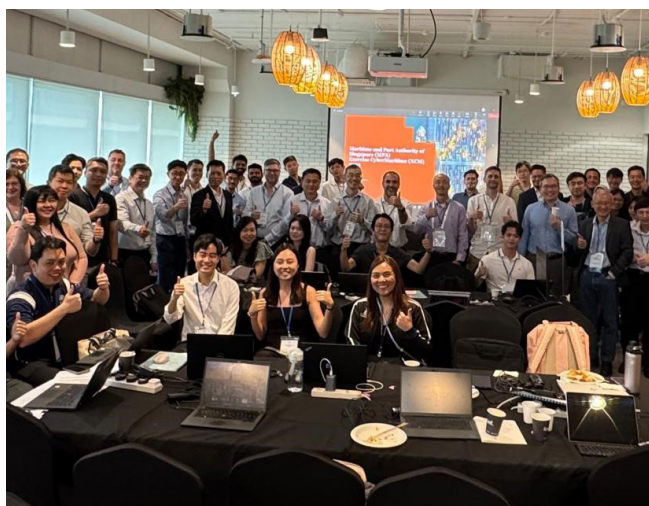
Launch of Maritime Testbed of Shipboard Operational Technology (MariOT)



Launch of MariOT

In 2025, MPA commissioned the MariOT, an industrial-grade, simulator-based platform to test cybersecurity solutions for shipboard systems. The MariOT was developed in collaboration with the Singapore University of Technology and Design (SUTD) and industry partners, and supported by the Singapore Maritime Institute (SMI).

Exercise Cyber Maritime



Exercise Cyber Maritime participants

During Singapore Maritime Week (SMW) 2025, MPA conducted a Cybersecurity Tabletop Exercise involving 38 participants from 19 organisations, which included international port authorities and local companies. The exercise tested information sharing, incident reporting and coordination using the Maritime Cyber Assurance and Operations Centre (MCAOC) platform. Participants also had hands-on training on the system to assess and address cyber threat information.

Increasing Cyber Awareness



To build a more cyber-resilient maritime ecosystem, MCAOC conducted a series of workshops and training programmes to strengthen awareness, skills and operational readiness of maritime companies.

Full Steam Ahead: Singapore's Smart Port Journey

Access real-time vessel information

Information such as vessel identification, destination, service status and schedules

Track maritime aerial drones in action

Access real-time drone video feeds for situation awareness on the ground

Check real time weather conditions

3D Map of seabed

Enables better planning of undersea activities such as hull cleaning and inspection

Support electric harbour craft (e-HC) ecosystem

- 1 Monitor the battery health of e-HC vessels.
- 2 Locate available e-HC vessels charging stations

Building Tomorrow's Port Today: Our Digital Twin

MPA launched the Maritime Digital Twin of the Port of Singapore at SMW 2025. The platform integrates real-time data from vessels, port operations and environmental sensors into a 3D visualisation and simulation environment. Developed in collaboration with GovTech Singapore, the Maritime Digital Twin enables better decision-making and optimises port operations. It also provides a test environment for companies and researchers to evaluate new operational concepts and digital solutions before they are deployed. This helps to accelerate innovation in the maritime sector.

Fuelling the Future: Digital Bunkering Solutions

Singapore was the first port to implement electronic bunker delivery notes (e-BDNs) to streamline bunkering workflows and improve transparency. With the requirement for bunker suppliers to issue e-BDNs by default coming into force from 1 April 2025, we expect to save up to 40,000 man-days annually and improve data consistency. MPA also introduced an e-BDN enquiry service to allow stakeholders to check the submitted e-BDN records.

To support a standards-based approach to digital bunkering, MPA published the Singapore Standard SS709:2024 for digital bunkering documentation. This aligns with ongoing work at the IMO on digital bunkering frameworks.

Innovation Harbour: Where Ideas Set Sail at PIER71™

Smart Port Challenge (SPC) 2025



Winners of SPC 2025

MPA organised SPC2025 together with NUS Enterprise. This featured 15 challenge statements across four domains, namely Maritime Green Technologies, Smart Shipping, Next-Generation Ports, and Digitalisation.

The programme attracted a record 288 proposals from 35 countries. Nineteen shortlisted startups participated in a 10-week accelerator programme and received targeted mentorship from our maritime partners.

The PIER71™ team also conducted outreach activities in 13 cities across the United States, Europe, South Korea, China and India to attract startups to Singapore.

New Initiatives from MPA and NUS Enterprise Partnership



MoU between MPA and NUS Enterprise was signed during SMW and was witnessed by then Senior Minister of State for Sustainability and the Environment, and Transport, Dr Amy Khor

MPA and NUS Enterprise renewed their partnership to attract promising startups, support overseas expansion, and foster collaboration between corporates and startups. Resources, funding and mentorship are provided to support startup projects and the deployment of solutions for the maritime industry.

'Plug and Play' Partners with MPA

MPA partnered Plug and Play, a global innovation platform, to accelerate innovation, digitalisation and decarbonisation in the maritime sector. The partnership provides access to Plug and Play's startup network and supports connections between technology providers and industry stakeholders, including PIER71™'s startup community.

Unmanned Capabilities: Drone Box Technology



Drone boxes deployed at the Maritime Drone Estate

In September 2025, MPA commenced daily surveillance operations using drone box technology. Six drone boxes were deployed at Marina South Pier, Pasir Panjang Power Station and West Coast Pier. More than 300 drone flights were conducted in coordination with port inspectors. The use of remotely deployed drones improved incident response time by 80 per cent, reducing response time from hours to just 15 minutes. Surveillance coverage will be expanded progressively.

Prototyping the Next-Generation Vessel Traffic Management System (NGVTMS)

Prototype development for the NGVTMS was completed in July 2025. Three vendors — Kongsberg NorControl AS, Tidalis B.V. and Wärtsilä Singapore Pte Ltd — delivered prototypes after a 15-month development period.

The prototypes were used to test system functions and operational concepts in simulated scenarios. When operationalised, NGVTMS is expected to enhance situational awareness and navigational safety in port waters and the Singapore Strait.



Connected Seas: Improved Data Connectivity through Maritime 5G and Satellite Technology



MPA delivered Maritime 5G coverage in our major anchorages, fairways, terminals and boarding grounds in 2025. The network supports real-time data exchange for operational use cases, including digital bunkering and drone surveillance during incident management. MPA patrol vessels are also equipped with 5G connectivity to support operational coordination.

Future-Proofing our Cargo Gateway

Jurong Port and Lighter Terminals



The lighter berth at the Decarbonisation Hub, with the EV Charging Panel and the Hydromover electric vessel (photo credit: Toll Offshore Petroleum Services Pte. Ltd.)

The General and Bulk Cargo (GBC) Demand and Capacity Study was completed in 2025. This will guide MPA in projecting GBC demand up to 2075.

To support decarbonisation, MPA issued a cargo terminal licence to Toll Offshore Petroleum Services Pte Ltd in October 2025 to operate a lighter terminal at the Loyang Offshore Supply Base (LOSB) for electric supply boats (e-boats). This is a trial to provide lighter services using only e-boats in the east of Singapore. The terminal will also have electric charging infrastructure for e-boats and e-harbour craft in that area.

PHASE 1

Reclamation of Tuas Port Phase 1 was completed in 2021. PSA has operationalised 12 berths as of December 2025.

PHASE 2

Reclamation works for Phase 2 commenced in 2018 and was 79.5 per cent completed as of December 2025. The reclamation is expected to be fully completed by 2030. MPA is on track to hand over the first six completed berths to PSA for terminal construction in March 2026.



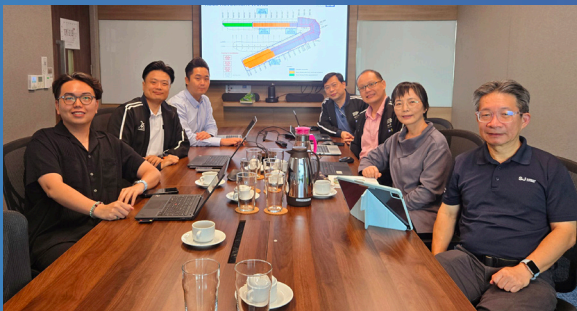
Aerial view of Tuas Port



Site Inspection at Tuas Port Phase 2

PHASE 3

Planning, design and soil investigation works for Phase 3 are in progress. A containment bund for excavated and dredged materials has been constructed and is now receiving excavated materials from the Land Transport Authority's projects as part of the whole-of-government efforts to reuse materials for reclamation. The main reclamation works are planned to commence in 2027.



Project team for the construction of the containment bund at Finger 4



Soil investigation works for Tuas Port Phase 3 using jack-up barge

Tuas Next Generation Port

Tuas Port will be the world's largest fully automated port for Singapore's container operations in a single location when fully developed. The port is planned to handle 65 million TEUs annually and is designed with long linear berths and deep waters to accommodate large container vessels. Consolidation is expected to reduce inter-terminal haulage and associated emissions.

CHAPTER 2

Enhancing Singapore's Global Maritime Hub Status

Singapore is home to more than 200 international shipping groups and numerous maritime service providers across finance, insurance and law. In 2025, these shipping groups generated more than S\$5 billion in business spending, reinforcing Singapore's position as a leading global maritime hub.



International Maritime Centre

Raising the Tide: Growing Maritime Businesses

In 2025, Singapore attracted 35 maritime companies, including maritime technology companies and ancillary service providers, and startups, to establish or expand their operations here.

Supporting Maritime Businesses

MPA has several initiatives to support maritime businesses:

- 1 Maritime Sector Incentive (MSI) and Approved Shipping Financing Arrangement (ASFA) award** provide tax concessions for setting up and expanding maritime operations.
- 2 Maritime Cluster Fund (MCF)** co-funds workforce development and business transformation programmes. Over 3,500 people benefited from co-funded training in 2025. Administration of the MCF has been streamlined through the Training Partners Gateway and Business Grants Portal.
- 3 Maritime Innovation and Technology Fund (MINT Fund)** co-funds research, product development and pilot projects. In 2025, eight projects were deployed and funding was awarded to 14 new projects involving over 40 developers.
- 4 MPA-Singapore Polytechnic Maritime SME Digital Adoption Pilot Programme** helps maritime SMEs digitalise operations through training, resources and funding. Ten SMEs participated in the May 2025 pilot to collaborate with students to develop automation projects.



Flying the Red Ensign: The Singapore Registry of Ships (SRS)

The SRS remains a flag of choice for many shipowners and operators worldwide. In 2025, the total tonnage of Singapore-flagged ships reached 137.46 million GT, a 27 per cent increase from 108 million GT the previous year. The SRS is now the fourth largest ship registry in the world for the first time.

Under the Green Ship Programme, 34 Singapore-flagged ships from 12 companies received Green Ship Certificates for their environmental efforts.

List of companies that received Green Ship Certificates under the Green Ship Programme:

- Asiatic Lloyd Maritime LLP
- China Merchants Group
- CMA CGM Asia Shipping Pte Ltd
- Consort Bunkers Pte Ltd
- Financial Partners Group Co., Ltd
- Kuok Maritime Group
- Mitsui O.S.K Lines Ltd (MOL)
- MM Marine / Minerva Bunkering
- Oasis LNG No 1 Pte Ltd
- Ocean Network Express Pte Ltd
- Pacific International Lines (Private) Limited
- Wan Hai Lines Ltd

SRS Forum 2025



Attendees at SRS Forum 2025

The annual SRS Forum, with the theme of “Navigating Change through Partnership and Collaboration”, was attended by 550 partners. The event highlighted MPA’s key initiatives, which included measures to prevent sea robbery in the Straits of Malacca and Singapore (SOMS), and maritime decarbonisation. It also discussed the performance of the SRS fleet.



Modernisation of the Ship Registration and Seafarer Management System



Briefing session before the launch of the Enhanced Ship Registration and Seafarer Management system, October 2025

On 3 November 2025, MPA launched a new ship name reservation and ship insurance certificate application module, as part of the Registry’s ongoing digitalisation efforts. The new insurance certification process, leveraging on AI, reduced processing time from 1-3 days to under five minutes. Further enhancements on other ship registration and seafarer management processes are expected to be progressively rolled out in 2026/27.

The forum recognised outstanding contributions within the SRS community. The Top Net Tonnage Contributor Award was presented to Evergreen Marine Corporation (Taiwan) Ltd, the Green Ship Award was presented to 34 Singapore-flagged ships, and the Sail Milestone Achievement Programme (SailMAP) Award was presented to three seafarers.

SailMAP Award Recipients at SRS Forum 2025

Global Maritime Forums

Singapore Maritime Week (SMW)

The 19th edition of SMW (24 to 28 March 2025), which MPA organised, brought together over 35,000 participants from more than 100 countries to discuss decarbonisation, digitalisation, maritime services, and talent development. Senior Minister Lee Hsien Loong delivered the keynote Singapore Maritime Lecture to over 1,000 delegates, who included ministers and representatives from international organisations.



Mr Lee Hsien Loong, Senior Minister of Singapore, delivered the Singapore Maritime Lecture at the opening of SMW 2025



A panel discussion at SMW

EXPO@SMW

The SMW exhibition featured almost 200 exhibitors in four thematic zones – innovation, decarbonisation, maritime service and talent. The new Talent@SMW programme included industry talks and guided tours to showcase career opportunities.

20th Marine Fuel Forum 2025



The 20th Marine Fuel Forum (MFF) brought together over 70 bunkering industry players to discuss decarbonisation, digitalisation, and the adoption of alternative bunker fuels. The top five MPA-licensed bunker suppliers with strong safety records and the top five biofuel bunker suppliers for 2024 were recognised at the event.

Harbour Craft Forum

MPA's Harbour Craft Forum (1 August 2025) attracted over 200 participants from Singapore's harbour craft sector to discuss decarbonisation, digitalisation and talent development. MPA introduced the Harbour Craft Decarbonisation Award to recognise those who operated electric vessels and participated in the Green Port Programme.



International Union of Marine Insurance (IUMI) Conference



Mr Baey Yam Keng, Minister of State for Culture, Community and Youth and Transport addressed the IUMI Conference in September 2025. This was the first time that Singapore hosted the event in over 20 years. The conference addressed issues such as transformation of the maritime industry as a result of geopolitical shifts, technological advances, and the green transition. It brought together global experts to discuss their impact and the opportunities for the marine insurance sector.

32nd Aids to Navigation Fund (ANF) Committee

MPA hosted the 32nd ANF Committee Meeting (6 and 7 May 2025). The ANF is part of the Co-operative Mechanism on the Safety of Navigation and Environmental Protection in the SOMS. It receives financial contributions for maintaining critical aids to navigation (AtoNs) in this busy shipping lane.

International Maritime Geospatial Forum



The inaugural International Maritime Geospatial Forum held in March 2025 gathered industry leaders and policymakers to explore digital geospatial innovations. The forum addressed critical maritime challenges, including disaster preparedness, rising sea levels, alternative bunker fuel operations, port optimisation and renewable energy development.



International Safety@Sea Week 2025



The International Safety@Sea Week 2025 was opened by Mr Murali Pillai, Senior Minister of State for Law and Transport on 15 July 2025

The International Safety@Sea Week 2025 (15 to 18 July 2025) attracted over 1,800 participants from around the world. Discussions focused on maritime safety advancements, including green and digital innovations.

MPA appointed a new 18-member National Maritime Safety at Sea Council (NMSSC) in January 2025. The NMSSC conducted its first Safety@Sea Community Conversations on safety culture and near-miss reporting on 16 July 2025.

Safeguarding Singapore's Strategic Maritime Interests

Singapore re-elected to the Council of IMO



Mr Jeffrey Siow, Acting Minister for Transport and Senior Minister of State for Finance, led the Singapore delegation at the 34th Session of the IMO Assembly, London

Singapore was re-elected to the IMO Council for a 17th consecutive term at the 34th Session of the IMO Assembly on 28 November 2025. We will continue to serve in leadership positions in the IMO and contribute to improving navigational safety for the international maritime community, promoting efficient and sustainable shipping, and protecting the marine environment.

10th Port Authorities Roundtable (PAR) 2025



Participants of the 10th PAR, Osaka, Japan, 9 – 11 July 2025

The theme of the 10th edition of PAR was “Navigating the Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) Landscape Together: Building Future-Ready Ports”. Twenty port authorities discussed the topic. MPA shared our experience in digital innovation and developing multi-domain capabilities. We continued to lead two workstreams on Port-to-Port Data Exchange and Safe Handling of Alternative Fuels.

Singapore hosts first International Organization for Marine Aids to Navigation (IALA) General Assembly



The Singapore delegation at the IALA General Assembly

Singapore hosted the first General Assembly of IALA from 18 to 21 February 2025. The Guest of Honour, Mr Teo Chee Hean, then-Senior Minister and Coordinating Minister for National Security emphasised the need for global cooperation in enhancing navigational safety.

Four hundred delegates from 65 countries discussed developments in marine aids to navigation, vessel traffic services, emerging technologies, technical cooperation, and governance related to Maritime Autonomous Surface Ships.

Singapore was elected to the IALA Council for the 2025-2027 term. We will collaborate with IALA and its members to shape policies and harmonise standards. We also renewed the MoU with the IALA World-Wide Academy to support capacity-building for its members.

Singapore advances the IALA agenda through VHF Data Exchange (VDES) and Digital Technologies Committee (DTEC)

MPA jointly organised the VDES Seminar on 17 February 2025 with the IALA World-Wide Academy and Japan Coast Guard. This brought together over 180 international delegates from 50 countries. MPA's Chief Technology Officer, Mr Dennis Khoo, was appointed Vice-Chair of the IALA DTEC, and led discussions on the vision and strategies for digitalisation.

Delegates Tour

Delegates visited local landmarks, cultural sites, heartland neighbourhoods and Raffles Lighthouse. They also observed the fast-charging of the 200-pax electric ferry, *Penguin Refresh*.



Delegates at Pulau Satumu for the Raffles Lighthouse tour



Delegates observed the fast-charging of the electric ferry Penguin Refresh at Pulau Bukom

Delegates explored Kampong Glam heritage site

CHAPTER 3

Advancing Maritime Decarbonisation

Singapore is committed to driving decarbonisation efforts on both the international and domestic fronts.



Pilot LNG bunkering at Singapore Cruise Centre, 24 February 2025
(photo credit: TotalEnergies)

Powering the Sustainability Transition

Electrification of Harbour Craft Sector

Launch of the First Fully Electric Supply Boat

The Coastal Sustainability Alliance (CSA) launched its first fully electric supply boat with support from MPA, institutes of higher learning and research institutions. This vessel was selected from 11 designs shortlisted in a 2023 Expression of Interest (EOI). It can achieve up to 60 per cent energy savings with zero direct emissions.



Launch ceremony of CSA's Electric Supply Boat on 5 February 2025

Publication of Technical Reference (TR) 136 for Electric Harbour Craft Charging Infrastructure

MPA collaborated with Enterprise Singapore (EnterpriseSG) and the Singapore Standards Council to publish TR 136, Singapore's national standard for electric harbour craft (e-HC) charging infrastructure. This ensures efficient and safe operation as well as interoperability of e-HC charging systems.

Launch of TR 136 by Standards Development Organisation @ NTU (NTU-SDO), MPA and EnterpriseSG on 28 March 2025



Industry Engagement on Harbour Craft Decarbonisation

MPA and Singapore Shipping Association (SSA) held a joint seminar attended by 77 representatives from 47 companies to share the decarbonisation roadmap for harbour craft.

The MPA-SSA joint seminar to engage the harbour craft sector on decarbonisation



CSA Electric Supply Boat Voltai
(photo credit: Kuok Maritime Group)



Building Sustainable MPA Facilities

Solarisation and Smart Facilities Management (FM)

MPA is increasing the deployment of solar energy in our existing facilities, in alignment with the Government's goal of achieving net-zero emissions by 2045.

Operations at Marina South Pier will be powered by photovoltaic panels. We aim for the operations at Pulau Satumu to be fully energy self-sufficient by end 2026, making it the first offshore island powered entirely by renewable energy.

Sensors are installed across MPA facilities to collect data to optimise electricity usage. Using smart grid controllers, our electricity usage will be automatically adjusted to match solar power generation. This will reduce our dependence on the national grid.

Smart FM and SmartGrid

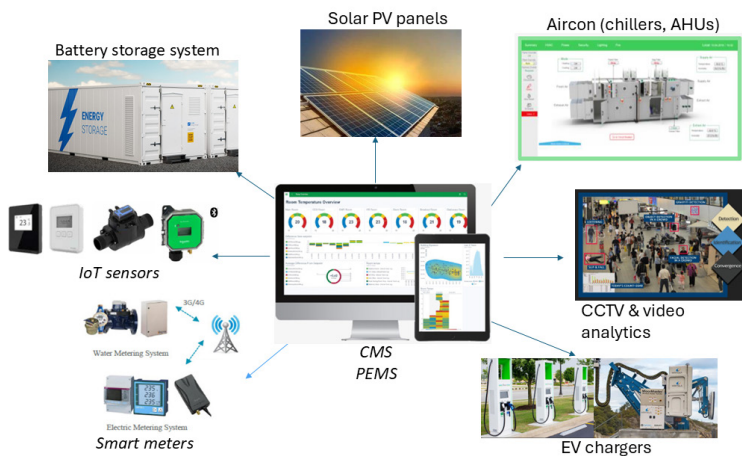
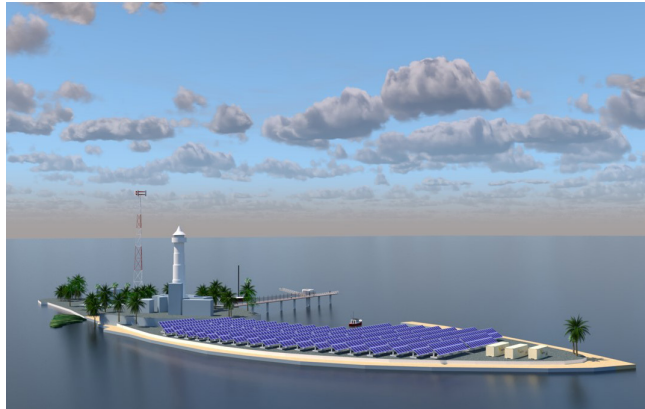


Illustration of Smart Facilities Management architecture



Artist Impression of solarisation at Pulau Satumu



Solar Panels at Marina South Pier

Use of Semakau Landfill Mixed Materials as Reclamation Fill Material at Tuas Port

The National Environment Agency (NEA) is partnering MPA to study the use of mixed materials excavated from Semakau Landfill as alternative reclamation fill at Tuas Port. This could extend the lifespan of Semakau Landfill and diversify our sources of reclamation infill materials.



Visit to Semakau landfill, 11 December 2025

Redevelopment of Maritime House

The new Maritime House features a 22-storey seafarer accommodation block and five-storey office building. Solar systems will generate more than 200,000 kWh annually and enable over 40 per cent energy savings while avoiding CO₂ emissions by about 82 tonnes. The project aims to attain Green Mark Super Low Energy certification, while the office block will be a zero-energy building. The new Maritime House is expected to be completed in 2027.

Artist Impression of the new Maritime House



Progress meeting and site inspection at new Maritime House

Strengthening International Partnerships to Advance Decarbonisation

MPA is collaborating with global partners to advance maritime decarbonisation and digitalisation through Green and Digital Shipping Corridors (GDSCs) and strategic agreements.



GDSC between Singapore and Rotterdam



Delegates at Port of Rotterdam, 24 September 2025

The Singapore-Rotterdam GDSC focuses on maritime decarbonisation and digitalisation in the critical Asia-Europe trade lane. A white paper on ammonia and a life cycle assessment study, published in September 2025, consolidated safety initiatives to support the safe adoption of ammonia as a marine fuel.

GDSC between Singapore and Port of Los Angeles (POLA) and Port of Long Beach (POLB)

The Singapore-Los Angeles-Long Beach GDSC, launched in 2023, promotes sustainability and digitalisation along the trans-Pacific shipping route. Initial tests using Application Programming Interface (APIs) based on international data standards have been conducted to facilitate seamless data exchange between ports. Live data trials are planned for 2026.

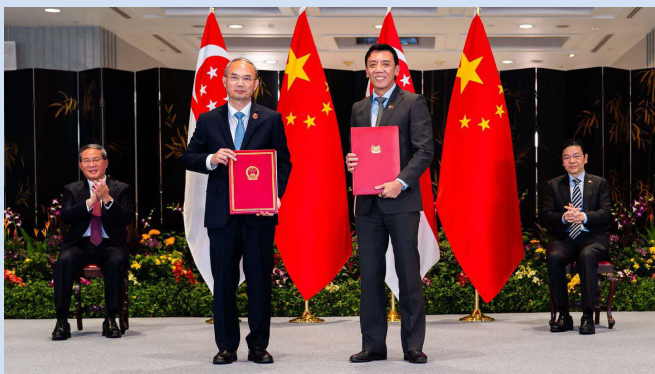
GDSC between Singapore and Australia

The Australian federal government brought in four state agencies and port authorities to collaborate with MPA in the GDSC.

In March 2025, MPA and Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) announced funding for eight projects under the S\$20-million Australia-Singapore Initiative on Low Emissions Technologies. These projects will cover innovations in the supply, transport, storage, and use of hydrogen, ammonia, and methanol, as well as safety, environmental monitoring, and electrification.

GDSC between Singapore and China

This national-level GDSC focuses on decarbonisation, port and supply chain efficiency, and digitalisation. Signed in October 2025, it aims to bring industry partners together to develop technologies, infrastructure and standards for a more sustainable, efficient and connected maritime sector.



Singapore's Acting Minister for Transport Jeffrey Siow and China's Minister of Transport Liu Wei at the Singapore-China GDSC MoU signing ceremony, Singapore, 19 October 2025

GDSC between Singapore and Tianjin

The second meeting of the Singapore-Tianjin GDSC was held in June 2025. Both parties have conducted studies on the use of green methanol fuel and agreed to explore further collaboration on maritime digitalisation projects.

GDSC between Singapore and Japan



2nd Singapore-Japan Annual GDSC Meeting, Tokyo, July 2025

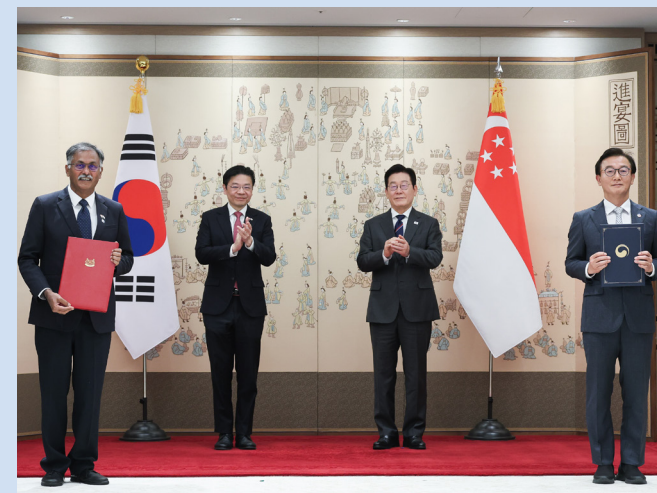
MPA and the Japanese Ministry of Land, Infrastructure, Transport and Tourism met in July 2025 to continue the exchange of knowledge and projects on port decarbonisation, safe use of ammonia, and autonomous shipping.

GDSC between Singapore and India

The Singapore-India GDSC will develop infrastructure and technologies to support the transition to zero or near-zero greenhouse gas (GHG) emission fuels. It will also facilitate digital information exchange and joint research into emerging green technologies and solutions.

GDSC between Singapore and Republic of Korea (ROK)

The Singapore-ROK GDSC was signed in November 2025. It will explore initiatives for zero or near-zero emission fuels. These include developing bunkering infrastructure, aligning technical standards, conducting trials and providing joint training.



Singapore's Prime Minister Lawrence Wong and ROK's President Lee Jae Myung, witnessing the Singapore-ROK GDSC MoU signing ceremony, November 2025. The MOU was exchanged by Senior Minister of State for Transport Mr Murali Pillai, with Minister of Oceans and Fisheries Mr Chun Jae Soo.

Enhanced Maritime Partnership Agreement with France

MPA and France's Directorate General for Maritime Affairs, Fisheries and Aquaculture (DGAMPA) implemented the Enhanced Maritime Partnership Agreement to strengthen maritime cooperation in decarbonisation, digitalisation, cybersecurity, innovation, and training.

A key project is to develop a bio-methane supply chain and certification framework compatible with sustainability standards and accounting frameworks under the United Nations Framework Convention on Climate Change and the IMO.

Memorandum of Understanding on Maritime Decarbonisation and Digitalisation with Port of Antwerp-Bruges

MPA and the Port of Antwerp-Bruges signed an MoU on 21 March 2025 to strengthen cooperation and exchange knowledge on maritime decarbonisation and digitalisation.

Reducing International Maritime GHG Emissions

Marine Environment Protection Committee (MEPC) 83: Approval of mid-term measures of 2023 IMO GHG Strategy

At the 83rd session of the MEPC, IMO member states approved mandatory emission limits and a global pricing mechanism for GHG emissions from ships.



Gearing up for Multi-Fuel Future

MPA is preparing Singapore for a multi-fuel future. We want to ensure that we can support the diverse fuel needs of international shipping.



Ammonia

MPA and EnterpriseSG will publish the TR for ammonia bunkering in the second quarter of 2026. It will cover custody transfer requirements, procedures and safety distances, and crew competency requirements.

Update on the Ammonia RFP / infrastructure project

The Energy Market Authority of Singapore (EMA) and MPA have appointed a consortium led by Keppel Ltd to conduct a Front-End Engineering Design (FEED) study on ammonia power generation and bunkering.

Biofuel

Biofuel deliveries surged to 1.38 million tonnes in 2025, up from 0.88 million tonnes in 2024. Deliveries of higher biofuel blends, including B30 and B100, exceeded previous years' levels. To ensure the safe use of biofuels, MPA worked with EnterpriseSG and the Singapore Chemical Industry Council to publish TR 140 on Marine Biofuel Specification in May 2025.

Hydrogen

PSA Singapore, Nanyang Technological University (NTU) and Chiyoda Corporation are testing new methods for transporting and storing hydrogen by converting it into a liquid chemical known as methylcyclohexane (MCH). At Pasir Panjang Terminal, hydrogen is extracted from the MCH and used as clean fuel to power hydrogen fuel cell electric prime movers. The first phase of this project was completed in 2025. The trial results will inform the next step for hydrogen fuel cell prime movers.



Hydrogen fuel cell electric prime mover at Pasir Panjang Terminal
(photo credit: PSA Singapore)

Liquefied Natural Gas (LNG)

LNG sales increased from 0.46 million tonnes in 2024 to 0.57 million tonnes in 2025. MPA conducted two successful sea-based reloading trials in September 2025 and Singapore's first cruise vessel LNG bunkering operation in February 2025.

MPA and EnterpriseSG are revising TR 56 to a Singapore Standard for LNG Bunkering. Scheduled for publication in 2026, the Standard will provide guidance in areas such as safety and operational efficiency, and align with the latest regulatory framework.



LNG being transferred from a large LNG carrier to a smaller LNG bunkering vessel



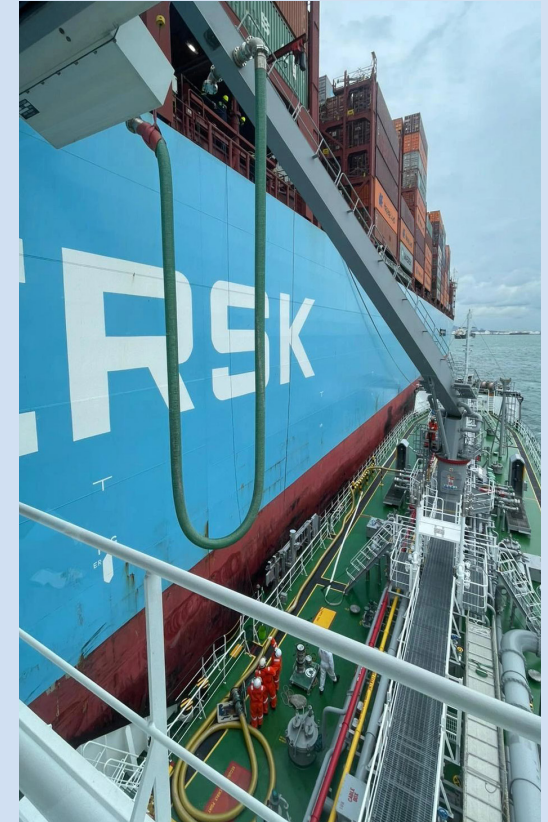
An LNG bunker vessel positioned alongside an LNG carrier to receive fuel, 11 September 2025

Methanol

MPA awarded methanol bunker supplier licences to three companies – Global Energy Trading Pte Ltd, Golden Island Pte Ltd, and PetroChina International (Singapore) Pte Ltd – for five years, starting from 1 January 2026.

On 10 March 2025, MPA and EnterpriseSG published TR 129 on methanol bunkering through the Singapore Standards Council. This provides a comprehensive framework for the safe and efficient use of methanol as an alternative fuel. TR 129 was validated on 28 November 2025 through a bunkering trial in which 3,012 metric tonnes of methanol were transferred using the Mass Flow Metering system to containership *Antonio Maersk*.

MPA also published the Standards for Port Limit Methanol Bunker Tankers in early 2025. These standards ensure safe operations by setting specific requirements, such as propulsion redundancy, manoeuvrability, and vapour management. They were developed after consultation with the industry.



Methanol bunkering trial on Antonio Maersk



CHAPTER 4

Driving Excellence through People and Innovation

Building a Future-Ready Maritime Workforce

MPA prioritises developing a skilled maritime workforce. We do this in partnership with educational institutions, industry stakeholders and unions. Our efforts focus on expanding career opportunities, attracting talent and addressing competency gaps. MPA's approved Establishment list¹ for FY2025 is 622.

Learning & Development

The MPA Academy supports staff learning with external training programmes, customised courses, and continuous learning initiatives such as fireside chats.



MPA staff attending the Sustainability 101 course

International Capacity-Building Programmes

The MPA Academy conducted several global maritime leadership programmes in 2025:

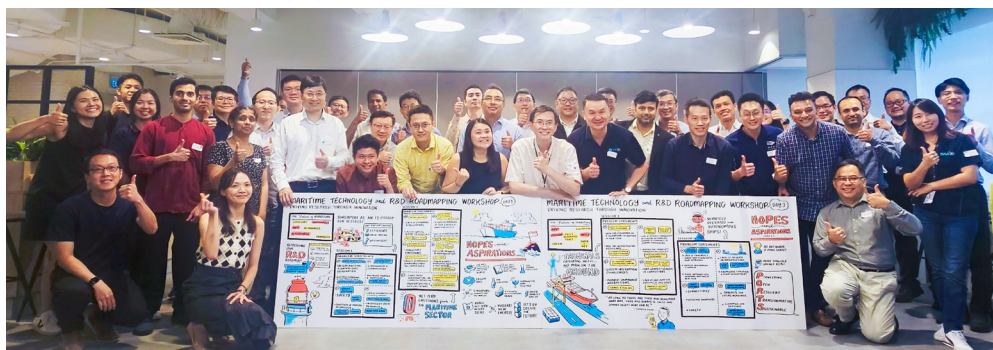
- **The 6th Advanced Maritime Leaders' Programme (AMLP)** brought heads of port and maritime administrations from over 15 countries to discuss maritime transformation development during Singapore Maritime Week (SMW) 2025.
- **The 15th Maritime Public Leaders' Programme (MPLP)** brought together 20 participants to learn about shipping economics, digitalisation and public leadership. It included a visit to PSA Innovation Lab.
- **The 11th Port Management Programme (PMP)** engaged port masters and middle management from over 20 countries during Safety@Sea Week.
- **The 5th Maritime Leadership Programme** took 16 senior leaders to South Korea for exposure to cutting-edge technologies and engagement with Korean maritime companies.
- **The IMO-Singapore Third Country Training Programme (TCTP)** organised the Seminar on Training of Seafarers on Ships Using Alternative Fuels. It was attended by 30 participants from various countries.

¹ The Establishment list reflects the actual number of permanent, non-contract staff in MPA, regardless of whether the staff is tagged to a permanent or supernumerary headcount in the manpower management framework.

Maritime Energy Training Facility (METF)

The METF collaborates with over 50 local and international partners to provide training on alternative fuels and emerging technologies. To date, over 1,400 maritime professionals have completed METF training courses. At SMW 2025, MPA launched the METF Digital Platform, a one-stop service for discovering relevant training courses and certification.

Strengthening Collaboration with Industry



MPA and Singapore Maritime Institute (SMI) organised a two-day Maritime R&D Technology Workshop to chart future capabilities and technology needs, drawing expertise from shipowners, classification societies, technology providers and research institutes. Insights from the workshop will contribute to the refreshed R&D Technology Roadmap to be published in 2026.

MPA renewed partnerships with established technology centres, which included the ABS Singapore Maritime Safety Centre, BV-SIT Centre for Maritime Electrification, and the RINA Technology Demonstration Centre.

MPA also renewed partnerships with the eight internationally-recognised Classification Societies in Singapore to support the development of new technologies and standards. We signed a Letter of Intent to advance areas such as smart and autonomous shipping, electrification, and maritime digitalisation.

Developing and Nurturing the Maritime Workforce

MPA partners with government agencies, industry, unions and institutes of higher learning to build a future-ready maritime workforce. These partnerships aim to enhance career awareness and create comprehensive talent development pathways for new and mid-career professionals.

Tripartite Maritime Training Award (TMTA)

The TMTA programme equips mid-career individuals with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarer (STCW) 1978 certification for officer roles aboard merchant vessels. Administered by Wavelink Maritime Institute, the programme duration has been shortened and standards raised with the use of maritime simulators and rigorous onboard training. The TMTA also offers a higher allowance. Government agencies, the Singapore Maritime Officers' Union and industry partners committed S\$8.5 million in funding over three years to support the enhanced programme. As of October 2025, 11 cadets had completed pre-sea training.

Training Programme

To address industry transformation needs, Singapore is expanding training in data analytics, AI, cybersecurity and sustainability. The MPA-SMF Joint Office for Talent and Skills supports workforce transformation and skills development in these areas, including through flexible upskilling pathways. Together with the National University of Singapore (NUS), the Joint Office developed the Foundation Course in Data Analytics, which attracted 58 participants from 40 companies.

MPA commissioned the Maritime Testbed of Shipboard Operational Technology (MariOT) system, the world's first industrial-grade cyber-physical platform for shipboard cybersecurity training and testing. Developed with the Singapore Maritime Institute (SMI), Singapore University of Technology and Design (SUTD) and industry partners, MariOT uses high-fidelity simulations to address cybersecurity challenges in shipboard operational technology systems.

Scholarships



Industry-supported scholarships continue to be a key feature of our talent attraction efforts. Sixty MaritimeONE scholarships worth over S\$1.48 million were awarded in 2025. Since 2007, over 700 scholarships totalling S\$19 million have been awarded.

MaritimeONE scholars at the award ceremony

MPA x UN Global Compact Network Singapore (UNGCNS) Carbon Accounting Workshops



MPA continued to collaborate with UNGCNS and industry associations to provide maritime companies training in carbon accounting and management. Besides carbon reporting, we also provided updates on the latest initiatives, schemes, and technologies to support companies in their carbon emission reduction journeys.

Six companies that reduced their carbon emissions were recognised with the Maritime SG LowCarbon50 Award. Another eight received honourable mentions. This award is provided for in the Carbon Management MoU signed by MPA, UNGCNS and various industry associations.

MaritimeSG LowCarbon50 Awards Presentation at SMW 2025

Staff Engagement & Development

Townhalls



MPA organises townhalls to update officers on maritime developments, human resource matters, and transformation initiatives. The townhalls also recognise staff contributions and facilitate dialogue with the Chief Executive and senior leadership.

FIRST Awards



The FIRST Award recognises staff who exemplify MPA's values of Forward Thinking, Integrity, Respect, Service Excellence, and Teamwork (FIRST). In 2025, 25 officers received the FIRST Award and three teams received the FIRST Team Award. One individual and one team were recognised as Exemplary FIRST Champions.

MPA CARES Committee events

The committee oversees staff engagement and charity initiatives, which foster meaningful connections within the workplace.



Annual Dinner and Dance

Ministry of Transport (MOT) National Day Observance Ceremony



The MOT National Day Observance Ceremony is an annual event where the senior management and staff of the MOT family gather to celebrate the nation's birthday.

Boosting Community Engagement and Charity Initiatives

MPA supports the community with corporate social responsibility initiatives. This also helps build team unity.

Refreshed Singapore Maritime Gallery Opening

The refreshed Singapore Maritime Gallery was officially opened on 17 March 2025 by Mr Murali Pillai, Senior Minister of State for Law and Transport. The refreshed space features exhibits on Singapore's maritime heritage and modern innovations.

During SMW 2025, students displayed posters of their maritime-related projects on topics such as decarbonisation, emerging technologies and the maritime sector's economic impact.



Mr Murali Pillai, Senior Minister of State for Law and Transport, and student representatives from Holy Innocents' High, March 2025



Singapore Scout Association booth at the Singapore Maritime Gallery, March 2025

MaritimeSG Youth Ambassadors Batch 4 Appointment Ceremony

The fourth batch of MaritimeSG Youth Ambassadors was appointed at the Singapore Maritime Gallery. Mr Baey Yam Keng, Minister of State for Culture, Community and Youth and Transport, graced the event. MPA Chief Executive Ang Wee Keong was also present.

Mr Baey Yam Keng, Minister of State for Culture, Community and Youth and Transport, with the fourth batch of MaritimeSG Youth Ambassadors, September 2025



SG60 Exhibition: Bridging Generations Through Maritime Stories

In celebration of SG60, MPA partnered PSA Singapore, Jurong Port, and REACH Community Services to host over 150 seniors and volunteers to maritime-themed trails and craft workshops. The event culminated in a vibrant community art installation at the Singapore Maritime Gallery.



Volunteers from MPA, PSA Singapore, Jurong Port and REACH Community Services at the Singapore Maritime Gallery

Environmental Stewardship Partnerships

Earth Hour 2025



MPA switched off all non-essential lighting across its facilities and patrol craft to commemorate Earth Hour 2025.

Tree Planting for Earth Day



Together with the National Parks Board, we planted 30 trees along Fort Canning Road on 22 April 2025. The event celebrated Earth Day and contributed to Singapore's OneMillionTrees movement, which is a nationwide effort to plant a million trees in Singapore by 2030.

Beach Cleanup and Turning the Tides on Trash

In conjunction with International Coastal Cleanup Day, MPA carried out a beach cleanup at East Coast Park on 11 September 2025 with PSA Singapore and Jurong Port. We removed a total of 270kg of waste.

Some of the collected plastic waste was transformed into coasters, keychains and rulers at an event on 13 September. Held in partnership with Our Singapore Reefs, WWF-Singapore and Young Nautilus, the event demonstrated circular economy principles.



CHAPTER 5

Celebrating Maritime Excellence and Industry Achievements

Singapore's strategic location, strong governance and established maritime ecosystem, combined with our unwavering commitment to excellence, have driven our continued success and global recognition in the maritime sector.

Badge of Honour

World's Top Maritime Centre in Xinhua-Baltic International Shipping Centre Development (ISCD) Index

For the 12th consecutive year, Singapore retained its position as the world's top maritime centre in the 2025 Xinhua-Baltic ISCD Index.

The ISCD Index, jointly published by the Baltic Exchange and China's Xinhua News Agency, ranks 43 global maritime hubs based on factors such as cargo throughput, port facilities, maritime services and the overall business environment.

World's Leading Container Port in DNV-Menon's inaugural Leading Container Ports of the World report

Singapore was named the World's Leading Container Port in the inaugural 2025 DNV-Menon Economics Leading Container Ports of the World report. Among the 160 evaluated ports, Singapore ranked first across all five pillars of Enablers, Connectivity, Productivity, Sustainability and Overall Impact.

Best Global Seaport and Best Seaport in Asia at 2025 Asian Freight, Logistics and Supply Chain (AFLAS) Awards

The Port of Singapore was named Best Global Seaport for the 4th time, and Best Seaport in Asia for the 37th time at the 2025 AFLAS Awards. These accolades recognise Singapore's leadership in maritime transformation and decarbonisation, as well as our consistent performance and contribution to the global supply chain. Singapore's success is underpinned by strong partnerships with local and international stakeholders, the dedication of research and enterprise communities, and the commitment of our maritime workforce and unions.



Pro-Enterprise Impact & Partnership Award (PEIP) and Pro-Enterprise Survey Award

MPA's Maritime 5G project won the Ministry of Trade and Industry's (MTI) Pro-Enterprise Impact & Partnership (PEIP) Award, which recognises outstanding public-private collaboration, impactful regulatory outcomes, and innovative approaches aligning with Singapore's business-friendly hub goals. The award was presented to MPA, Infocomm Media Development Authority (IMDA) and M1 at the November 2025 ceremony.

MPA was also among the top three agencies awarded the Pro-Enterprise Survey Award for supporting business and a pro-enterprise environment, based on the results of the biennial survey by MTI and the Public Service Division.



Esri Singapore 2025 GeoInnovation Award

MPA received the Esri Singapore 2025 GeoInnovation Award for its Methanol Plume Simulation Web App project. This Proof-of-Concept (POC), developed in collaboration with Esri Singapore and local research institutes, integrates hydrographic data, automatic identification system data, and real-time weather information into a dynamic 3D simulation of plume model across air, surface and subsea environments. Powered by ArcGIS, this web-based application supports geospatial planning, operations and incident management, in support of the sector's transition to alternative fuels.



Public Sector Transformation (PST) Awards

The PST Awards recognise excellence across the public sector by highlighting best practices, innovations and exemplary service. MPA received two Dare to Do Awards, which honour individuals and teams that demonstrate resilience and the courage to experiment with new approaches. The awards were presented to:

Er Tham Wai Wah
*Senior Director, Engineering
& Project Management /
Chief Engineer*

Recognised for advancing decarbonisation strategies and harnessing digital technologies to tackle complex engineering challenges in the development of Tuas Port.

Multi-agency collaboration among MPA, Ministry of Home Affairs, Ministry of Manpower, National Environment Agency, Singapore Civil Defence Force and Singapore Police Force

They were recognised for the world's first successful use of ammonia as marine fuel. Principal Marine Surveyor (Ship Regulatory, Design and Standards), Hafiz Ramli, received the award on behalf of MPA.



Partner of Academy of Singapore Teachers Award 2025

MPA was honoured on 6 November 2025 with this award. This recognised our contribution to the Ministry of Education's development of educators through the Teacher Work Attachment Plus programme, conducted with the Singapore Maritime Gallery.



MOT Minister's Innovation Award

This award was introduced to encourage and recognise innovation efforts in MOT Headquarters and its Statutory Boards. In 2025, it was presented to the following MPA project teams:



Distinguished Award

Monitoring Marine Projects in
Singapore Waters



Merit Awards

- 1 Systems-level Approach for Pre-emptive Adaptation of Tuas Port
- 2 Night line-towing of barges at Pasir Panjang Terminal
- 3 Maritime Testbed of Shipboard Operational Technology (MariOT)

MOT Value For Money Award



Distinguished Award

Security Waiver to Reduce Businesses' Cost and Improve Cashflow



Merit Awards

- 1 Streamlining Port State Control (PSC) and GreenGov.SG Processes with Robotic Automation
- 2 Sustainable Transformation of MPA's Facilities through the 3Rs Framework: Robotics, Renewables & Re-imagine
- 3 Enhancing Vessel Tracking and Monitoring for Whole-of-Government (WOG)



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