



MEDIA FACTSHEET (MARITIME)

DRIVING GROWTH AND INNOVATION TO STRENGTHEN MARITIME COMPETITIVENESS AND RESILIENCE

The Maritime and Port Authority of Singapore (MPA) will build on the strong maritime performance in 2024¹ with a continued focus on growth and innovation to strengthen Maritime Singapore's competitiveness and resilience. Priorities include strengthening the competitiveness of maritime enterprises while enhancing port efficiency, digitalisation, and decarbonisation, focusing on technology innovation to capture new growth opportunities, and growing maritime talent.

(A) Strengthening Maritime Singapore's Competitiveness

2. Fostering a conducive business environment and streamlining port and marine services ensures that Singapore remains an attractive hub for maritime companies. MPA aims to help maritime businesses achieve higher productivity and reduced cost while also contributing to Maritime Singapore's long-term growth and resilience by implementing digital and cybersecurity services and conducting regular reviews of our rules and regulations.

AI-Enabled Port Clearance to Streamline Process

3. MPA is developing an AI-enabled system to streamline port clearance processing, reducing the need for companies to manually input information from multiple ship certificates and eliminating manual verifications by MPA. Today, ships may need to submit up to 16 certificates in various formats and languages. Set to be introduced progressively over the next few years, the system will significantly reduce the processing time required for port clearance applications from up to three days to minutes. The system will also enhance the accuracy of data entry and verification.

4. In October 2024, MPA also launched two AI-driven applications, DocuMind and DocuMatch, to improve the accuracy and efficiency of insurance certificate renewals for Singapore-registered ships. MPA recently commenced pilot trials of these tools with a selected group of shipping companies and will expand adoption to the whole of the industry by end-2025.

¹ "Strong Growth Momentum for Maritime Singapore", 15 January 2025. Link: <https://www.mpa.gov.sg/media-centre/details/strong-growth-momentum-for-maritime-singapore>

Supporting Companies with Cyber Risk Monitoring and Advisory

5. MPA has launched the Maritime Cyber Assurance and Operations Centre (MCAOC). The centre will deliver real-time security monitoring and disseminate information to help companies take early action to address cyber threats. MCAOC is expected to help companies save an estimated S\$200,000 annually by pooling cyber monitoring and information scanning capabilities. To date, 16 companies have come onboard MCAOC.

Reducing Business Costs through Ongoing Reviews of Rules and Regulations

6. MPA has rolled out various initiatives across 2024² to reduce business costs and enhance resource optimisation for industry. Around 1,000 companies are expected to benefit from initiatives such as the credit management policy, allowing of night movement of line-towed container barges and the streamlining of the withholding tax exemptions self-declaration process. These measures have collectively led to over S\$700,000 in savings in compliance costs, around 1,000 hours of waiting time by barge operators saved annually, and improved cashflows of over S\$20 million.

More Port Users to Access Costs Savings through Just-in-Time Operations

7. The Just-In-Time and Coordination Platform (JIT Platform), hosted on DigitalPORT@SGTM ³, provides advanced and real-time information on vessel schedules in port and allows vessels to plan the optimal voyage speed for their arrivals. This enables vessels to minimise waiting time at anchorages, optimises the schedule for marine services to support vessels' port calls, and reduces vessels' overall turnaround time in port.

8. Since the JIT Platform was launched in 2024 for container and general cargo and bulk sectors, MPA has onboarded more than 150 port users. MPA is also working with ship liners and marine service providers to automate data sharing and facilitate more efficient coordination of marine services. The JIT Platform will progressively be made available to tankers calling at Singapore's terminals and to all vessels visiting Singapore's anchorages by end-2025.

² For more details on MPA's rules and regulation review, refer to:

<https://www.mpa.gov.sg/media-centre/details/media-factsheet-charting-singapore-forward-as-a-hub-port-and-international-maritime-centre>.

For more details on the permitting of night movement for line-towed container barges, refer to: <https://www.mpa.gov.sg/media-centre/details/mpa-to-permit-night-movement-of-line-towed-container-barges-at-pasir-panjang-terminal>.

³ DigitalPORT@SGTM is a one-stop digital portal for maritime regulatory and port services transactions in the Port of Singapore.

(B) Investing in New Growth Areas in Technology and Sustainability

9. Providing a conducive environment for maritime companies to trial and innovate is a key enabler to position Singapore as a leading maritime technology and innovation hub, and support digitalisation and decarbonisation initiatives. MPA is also growing the range of maritime services to meet increasing demand.

More Sea-space for Industry to Trial Maritime Technologies

10. In addition to the test-bedding site off Raffles Reserved Anchorage, MPA will be allocating more sea-space for companies to conduct technology trials. By allowing more complex and larger-scale trials to take place, MPA aims to attract global marinetech players and start-ups to establish and grow a local presence in Singapore. The expansion of testbeds and sandboxes would enable companies to accelerate both their technology development cycle and the commercialisation of solutions. Each of these pilots will be subject to the relevant risk assessments and approvals.

11. New technology solutions that can be trialled include autonomous flotsam collection, robotic hull cleaning, smart and remote harbour craft operations, and maritime drone inspection and delivery. Companies that have previously benefitted from using the test-beds include Seatrium, ST Engineering, Wärtsilä, American Bureau of Shipping (ABS), Lloyd's Register, PACC Offshore Services Holdings, and drone startups such as Avetics and Skyports Drones Services.

Expanding Maritime Drone Capabilities to Meet Increased Demand

12. The Maritime Drone Estate (MDE) was launched in 2021 to support the development of drone technologies and concept of operations for maritime use cases, such as shore-to-ship deliveries. The MDE has facilitated nearly 1,000 flights since its opening.

13. The MDE will be renovated to accommodate more and larger-sized drones to support a wider range of services and trials. These include services such as remote inspections and shore-ship deliveries in the eastern anchorages, and more complex trials such as coordinated drone operations for incident response at sea.

More Services and Innovations Expected with Full Maritime 5G Coverage by 2025

14. Five Maritime 5G base stations have been installed and operationalised as of 2024. Up to seven more base stations will be operationalised by 2025 to complete Maritime 5G coverage in all our major fairways, anchorages, terminals and boarding grounds.

15. With the enhancement of coverage of the Maritime 5G network, users of the Singapore port will experience stronger and more stable connectivity. The enhanced

coverage is also expected to unlock new 5G-enabled maritime services and innovations. Use cases include live data transfers between ship-to-ship for digital bunkering operations, and ship-to-shore applications to support drone operations, communications and data exchange on ships movements to enhance safety of navigation.

(C) Developing and Growing Maritime Talent

16. MPA has implemented several schemes to expand the talent pipeline and equip the maritime workforce with the relevant skillsets to grow and strengthen the global competitiveness of Singapore's maritime workforce.

Developing Maritime Leaders through Leadership Programmes

17. The Maritime Leadership Programme (MLP)⁴ will be expanded in 2025 to include industry leaders from adjacent trading and logistics sectors. This is expected to strengthen cross-sector collaboration, enable integration of expertise across the entire supply chain, and bring fresh perspectives and solutions to address maritime challenges. As a result, the annual MLP intake is expected to increase from around 20 currently to 25 this year. Over 80 industry leaders have participated in MLP since the programme was launched in 2021. The next MLP intake will be in 3Q 2025.

18. MLP alumni will receive support from MPA to onboard the Singapore Leaders' Network (SGLN), where they will gain access to SGLN events and mentorship programmes. The SGLN is expected to help MLP alumni gain global insights, access new overseas markets and technologies, and stay competitive, preparing them for global leadership roles.

19. MPA has also expanded the scope of its Maritime Cluster Fund-Management Associate (MCF-MA) programme since 2024 to allow overseas stints during the two-year support period. Such enhancements to leadership programmes are part of the whole-of-government initiative to support the development of local maritime professionals.

Commissioning of the Maritime Testbed of Shipboard Operational Technology System

20. The Maritime Testbed of Shipboard Operational Technology System (MariOT) will be commissioned and operationalised on 20 March 2025 at the Singapore University of Technology and Design (SUTD) iTrust Centre. First announced in April 2024, MariOT is the world's first industrial-grade simulation platform, equipped with propulsion, machinery, power and navigational bridge systems, to provide

⁴ Conducted by the MPA Academy, the MLP is designed for senior management leaders within the extended value chain of the maritime industry to expand their knowledge and cultivate business networks within the maritime ecosystem.

cybersecurity training and support cybersecurity solutions testing in a safe and realistic environment.

21. Over the next three years, more than 300 students and professionals are expected to benefit from MariOT. Maritime technology firms in Singapore such as ABS and ST Engineering have also expressed their interest to use MariOT to test, design and validate their new cybersecurity technologies.

22. An inaugural exercise using MariOT and conducted in partnership with SUTD and Estonia's Tallin University of Technology will be held from 27 to 28 March 2025. The exercise will involve MCAOC users and members of the Port Authority Chief Information Officer Cybersecurity Network (PACC-Net), such as Port of Long Beach.

Reduced Training Time and Additional Support for Local Seafarers

23. Local seafarers bring valuable expertise and experience, and they form the talent pool for leadership positions, both at sea and ashore. To strengthen the local mid-career talent pipeline, MPA will work with unions, schools and industry to make the seafaring career more attractive. More details will be announced at the Singapore Maritime Week 2025.

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Translations

Maritime and Port Authority of Singapore (MPA)	新加坡海事及港务管理局
Autonomous Flotsam Collection	自主垃圾回收
Digital Bunkering	数码海运燃料供应
digitalPORT@SG™	数码港口
Electric harbour craft	电动接驳船 / 电动接驳艇
Just-In-Time Planning and Coordination Platform (JIT Platform)	及时规划和协调平台
Insurance Certificate Renewals	保险证书续期
Next Generation Vessel Management System (NGVTMS)	新生代船只交通管理系统
Marine Shipboard Operational Technology (MariOT) System	海上船舶作业科技系统
Maritime Cyber Assurance and Operations Centre (MCAOC)	海事网络确信营运中心
Maritime Cluster Fund – Manpower	海事业组合基金 - 人才培养
Maritime Drone Estate	海事无人机测试区
Maritime Leadership Programme	海事领导培训项目
Port Authority Chief Information Officer Cybersecurity Network (PACC-Net)	港口管理机构首席资讯长网安网络
Robotic Hull Cleaning	船体清洁机器人
Singapore Leaders' Network	新加坡领导网络
Withholding Tax Exemption	预扣税豁免