



HONG KONG  
MARITIME AND PORT BOARD

香港海運港口局

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# BUILDING A LEGACY OF INNOVATION AT THE PORT OF HONG KONG

The Hong Kong Government's advocacy for a smart green port can be traced back to 2018. However, the members of the Hong Kong Seaport Alliance (HKSPA) (Hong Kong International Terminals (HIT), Modern Terminals, Cosco-HIT, and Asia Container Terminals) have been investing heavily in the digital and environmental space for more than a decade. The following represents just a few examples.

As early as 2012, operators at the Kwai Tsing Container Terminals were among a few pioneers introducing the remote control operation of cranes. With the aid of high-definition cameras and advanced automated/semi-automated control systems, crane operators have since remained well out of harm's way whilst delivering reliable yardside productivity.



HKSPA's autonomous trucks are operating at Kwai Tsing Terminals

HKSPA tenaciously keeps a grasp on its reputation as the largest fresh fruit trading hub in South China. To do so demands a technological edge. Since 2021, the group has deployed the Remote Reefer Monitoring system. This provides 24X7 automated remote reefer container management, with greater visibility and accuracy of container conditions including temperature, humidity and CO2 levels. Employment of the system has enhanced the holistic operational efficiency and competitiveness of the terminals, saved reefer workers' time on yard inspections, and improved occupational safety.

In 2022 the terminals began to explore the port enhancing capabilities of 5G and AI. Among the pilot projects launched and approved has been a Remote Container Inspection (RCI) application. RCI captures container images using optical recognition and image processing technologies. With the use of AI, it automates the inspection process of containers and enhances the ability to detect any damage to containers or goods at gatehouses, whilst eliminating the need for physical outdoor work. This RCI process has recently been escalated with a trial run of barge quay cranes extended to quayside barge operations.

Fast forward to 2024 to find HKSPA running a proof-of-concept for autonomous trucks at its terminals (started late 2023). The trucks are equipped with built-in AI, multi-dimensional sensors, high-definition cameras, GPS and more, providing the capability to navigate seamlessly within the terminals. The innovation is not only a breakthrough in terminal technology but also an enhancement for environmental protection, operational efficiency and safety.

To optimise daily operations, terminals at HKSPA have digitalised all import and export workflows at their gatehouses through the introduction of the Electronic Release Order (eRO) and the Electronic Booking Confirmation Note (eBCN). These two initiatives have enabled a paperless workflow for both import and export containers, whilst shortening the truck processing time at the gate by 25%. The eRO offers a seamless documentation exchange process which reduces the overall time consumed among various stakeholders for inbound container release from three days to one.



Finally yet importantly, in the early days of HKSPA's formation in 2019, one of its earliest initiatives involved barge operations. The operations policy across HKSPA's facilities for barges was standardised, a single berthing arrangement by zone was introduced, together with a favourable dockage scheme.

With higher efficiency and flexibility, the turnaround time of barge voyages was improved and barge operators were incentivised to expand their scale of operations and coverage for achieving economies of scale.

HKSPA has since significantly upped the ante with the introduction of the Common Barge Platform. CBP 3.0, comprising a centralised platform, automatically processes berthing requests and scheduling for barge operators operating at HKSPA facilities. It has simplified barge reporting procedures and improved planning of barge berthing times and sequence. It has also shortened the turnaround time of barges when they call at Hong Kong, at the same time increasing barge berth booking information transparency.

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## MARINE DEPARTMENT ROLLED OUT GREEN INCENTIVE SCHEME - GREEN TRANSFORMATION OF HONG KONG-REGISTERED SHIPS

**H**ong Kong-registered ships are renowned for their high quality and safety, with low port state control detention rates. In 2023, the port state control detention rate of Hong Kong-registered ships was 0.81%, significantly lower than the global average of 3.39%. The Hong Kong Shipping Registry (HKSR) is consistently included in the white list of the Paris Memorandum of Understanding (MoU) and the Tokyo MoU, and recognised in the United States Coast Guard Qualship 21 programme.

To further promote the competitiveness of the HKSR, the Hong Kong Marine Department (MD) has launched its Green Incentive Scheme (the Scheme) on 28 June. Ahead of the launch, Jerry Tang, Assistant Director of Marine/Shipping Division and Eric Lee, General Manager/Ship Registration and Quality at MD, put the new incentive scheme into the context of Hong Kong's green shipping policy, and its adherence to International Maritime Organization (IMO) pronouncements and regulations which aim to achieve net zero greenhouse gas (GHG) emissions by 2050.

"As mentioned in the 2024-25 Budget presented by the Financial Secretary in February this year, the MD is going to introduce an incentive that aligns with the Government's green strategy and policy direction," says Mr Tang.

In December 2023 the Hong Kong Government promulgated its Action Plan on Maritime and Port Development Strategy. A central component in the Strategy is to develop Hong Kong into a green shipping hub through the provision of green fuels for bunkering.

With an allocated funding of HK\$65m, the MD's Scheme aims to encourage Hong Kong-registered ships to meet the international carbon reduction standards. All Hong Kong-registered ships of 5,000 GT or above that hold a valid Statement of Compliance and attain Carbon Intensity Indicator (CII) rating A or B are eligible to apply for the Scheme.

"Under the Scheme, each eligible ship will receive HK\$20,000 per year for each successful application. If a ship attains CII rating A or B throughout three years from 2024 to 2026, the ship may then receive a maximum incentive of HK\$60,000," Mr Tang explains.

The MD had in mind IMO's mandatory short-term measures to regulate the technical and operational energy efficiency of ships, namely the Energy Efficiency Existing ship index (EEXI) and the CII, when it decided to launch the Scheme. But, as far as the MD is aware, the offering of a CII-related incentive remains pioneering among international flag administrations. This measure will further consolidate the status of HKSR as a green fleet and reinforce the brand of HKSR in the international maritime arena.



Mr Lee explains the thinking behind the Scheme: "As an associate member of the IMO, we are obligated to support the IMO's decarbonisation efforts. The CII provides a real indication of energy efficiency in terms of emissions performance based on actual operational data such as fuel consumption and distance travelled, rather than a conceptual figure based on technical/design data."

Unlike EEXI which is verified once in a vessel's lifetime only, the attained CII is calculated every year and the required level to be attained is subject to annual reductions.

Mr Tang adds: "This ensures the continuous improvement of a ship's operational carbon intensity, which dovetails with the MD's objective of encouraging green shipping," he says. "The MD aims to be a pioneering Flag Administration supporting the IMO's green shipping policy on CII."

The Scheme will be in effect until 31 December 2026, after which the MD will assess the impact of the IMO review on CII regulatory framework. "The coming incentive may be adjusted accordingly," says Mr Tang. "Meanwhile Hong Kong is always open to formulating other incentives to Hong Kong-registered ships to enhance their green operations."

## MARITIME EVENTS IN HONG KONG

### ASA's International Shipping Forum

On May 27, Hong Kong Chief Executive John Lee, and Secretary for Transport and Logistics Lam Sai-hung, warmly welcomed the arrival in Hong Kong of leading global shipping dignitaries, the International Maritime Organization's (IMO) Secretary General Arsenio Dominguez, and Secretary General of the International Chamber of Shipping (ICS) Guy Platten.

Mr Dominguez and Mr Platten were in Hong Kong attending The Asian Shipowners' Association (ASA) 2024 International Shipping Forum on May 28. The theme of the Forum, hosted by the Hong Kong Shipowners Association, and sponsored by the Hong Kong Maritime and Port Board was "Asia Shipping, Greener Together".

As an honoured guest at the Forum, Mr Lam delivered the welcome address to the more than 300 delegates and participants attending. In his speech, highlighting the growing strength of Asia's maritime capabilities, Mr Lam noted:

"Over the past decade, we have seen a significant shift in the centre of gravity of shipping towards Asia. From fleet ownership and cargo shipment to shipbuilding and maritime services, Asia is playing an indispensable role in the creation of a sustainable maritime industry and the world is watching. Hong Kong, Asia's World City, is already charting new waters for our current and future generations."

Addressing the Forum's theme, Mr Lam continued, "The maritime industry holds immense potential for embracing green transformation, and our drive to promote sustainable practices is unwavering. To support this endeavour, we will provide incentives for Hong Kong-registered ships that have attained high ratings under the international decarbonisation standards formulated by the IMO. This initiative, backed by approximately HK\$65m in funding, demonstrates our dedication to supporting environmentally friendly shipping practices."

"Furthermore, the HKSAR Government is conducting a comprehensive feasibility study on the provision of green fuel bunkering services for both local and ocean-going vessels. Our objective is to establish Hong Kong as a leading green maritime fuel bunkering centre. By the end of this year, an action plan will be promulgated, outlining our roadmap for the development of green fuel bunkering in Hong Kong."

During talks away from the Forum, Mr Lam welcomed the ICS's plan to organise a high-level summit on global maritime trade during the upcoming Hong Kong Maritime Week (17-23 November).

The Global Maritime Trade Summit, organised by the ICS, is expected to draw senior leaders, ministers, government shipping ministry DGs, as well as representatives from ports, logistics, regulators, development banks, international agencies, and invited experts.



The Secretary for Transport and Logistics, Mr Lam Sai-hung, speaks at the Asian Shipowners' Association 2024 International Shipping Forum



## IUMI Asia Forum

The Hong Kong Federation of Insurers (HKFI) were thrilled to hold the fourth IUMI (International Union of Marine Insurance) Asia Forum in Hong Kong on 5 June.

With many local and overseas delegates in attendance, a highlight of the Forum was a panel discussion on "Marine Insurance in Asia – Now and Beyond". Among the panelists was Lars Lange, Secretary General of IUMI who contributed greatly to the thought provoking discussions.

Mr Lange later commented: "Hong Kong has a special relationship with IUMI. Our local member association the HKFI acts, since 2016, together with us as our "IUMI Asia Hub". HKFI helps us very much to understand, connect, explore and interact with Asia stakeholders and countries."



IUMI Asia Forum Hong Kong (from left to right) Lars Lange IUMI Secretary General, Frédéric Denèfle President IUMI, Timothy Lee Deputy Chairman Marine Insurance Association

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# HONG KONG MARITIME WEEK 2024

The HKMW is in its eighth edition this year. Organised by the Hong Kong Maritime and Port Board with the Hong Kong Shipowners Association and the Hong Kong Maritime Museum as co-organisers, and the Hong Kong Trade and Development Council and Invest Hong Kong as the partners, this year's HKMW will be the maritime industry's focus of attention from 17-23 November.

Once again, HKMW has attracted some of the world's leading maritime organisations to render their support to this year's event, including the Asian Shipowners' Association, Baltic and International Maritime Council, China Maritime Law Association, China Shipowners' Association, China Shipowners Mutual Assurance Association, Hong Kong Maritime Law Association, International Chamber of Shipping, International Group of P&I Clubs, International Union of Marine Insurance, Maritime London, and The London Maritime Arbitrators Association. This year and for the very first time, the International Association of Dry Cargo Shipowners (INTERCARGO), the International Association of Independent Tanker Owners (INTERTANKO) and World Shipping Council (WSC) agreed to support the HKMW.

Event recruitment among local and overseas organisations was launched in May. The closing deadline for applications is 31 August. Events in different formats including physical, online and hybrid versions are warmly welcome. Don't hesitate to contact the Secretariat of the Hong Kong Maritime and Port Board if you are interested in bringing an event to the HKMW!

### Upcoming Events

- 2024 HKMW (17-23 Nov 2024)
- ICS' Global Maritime Trade Summit (during HKMW 2024)
- Asian Logistics, Maritime and Aviation Conference (during HKMW 2024)
- 4th World Maritime Merchants Forum (during HKMW 2024)