



The Chartered  
Institute of Logistics  
and Transport

August 2024

# CILT Buzz

THE CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT SINGAPORE

## Trading Post *to* Global Hub



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## CHAIRMAN'S MESSAGE

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*Dear Colleagues,*

Against the backdrop of the still unresolved Ukraine and Gaza Wars, NATO showed no concrete results at the recent Summit in Washington on preserving world peace and rules-based order. The failed assassination attempt against former US President Trump and new political leaders in France, Netherlands and United Kingdom present geopolitical uncertainties in the Transatlantic. China and the Philippines fortunately toned down their heated rhetoric and agreed to jawbone their intractable maritime squabbles.

Trade, shipping and supply chain volatilities are likely to persist. Supply Chain disruptions are expected – hence, continued focus on Supply Chain Resilience and Business Continuity is advised. The 19 July massive IT glitch worldwide, affecting airports, ports, banks, etc is a timely reminder!



The Federal Reserve Board's recent pronouncements suggest that it may, effective September, finally trigger a gradual and progressive softening of the hitherto stubborn high interest rates - welcome news for businesses.

The US continues its aggressive "Chip Diplomacy" and is trying to transform the world's chip supply chains by getting selected foreign partners and companies to invest in high-tech chip manufacturing in the US. Likewise, the USA is ensuring that its Green

Energy Technology (EV, solar panels and wind turbines) supply chains are also strengthened. In recent years, the USA has attracted US\$395b worth of Investments in semiconductor manufacturing and US\$405b in Green Technology and Clean Power.

As part of de-risking supply chains in East Asia /PRC, US and EU companies are investing in incremental chip manufacturing capabilities, as well as in Downstream Assembly, Testing and Packaging (ATP) in Malaysia, Singapore, Philippines, Thailand and Vietnam.

ASEAN will be a beneficiary of these supply chain reconfigurations. Singapore accounts for 20% of the global semiconductor equipment market and supplies 11% of the chips worldwide. Malaysia has 7% of the global chip market and recently secured a US\$5.5b commitment from Germany's Infineon to build a third foundry. It also has Southeast Asia's largest ATP ecosystem. These developments augur well for cross-border land-based supply chains and intra-ASEAN multi-modal supply chains.

Singapore and Johor recently celebrated the 100<sup>th</sup> anniversary of the Johor-Singapore Causeway. With cross-border crossings of over 300,000 people daily, the Causeway is one of the world's busiest borders for Tourism, Trade, Work and Truck-Freight. The 4km Rapid Transit System (RTS) Link will be a light-rail shuttle between Woodlands and Bukit Chagar in Johor. When completed in end-2026, congestions at the Causeway and Tuas Second Link should ease and thus facilitate truck freight. This will benefit the future Johor-Singapore Special Economic Zone (SEZ).



**LAND (SEZ)** — Following the ministerial MOU signed in Jan 2024 on the creation of the Johor-Singapore Special Economic Zone (SEZ), private sectors in both countries have been diligently studying the potential synergistic investment and cross-border trade opportunities, challenges and a workable framework. The Iskandar Economic Zone established in 2006 did not achieve significant traction then owing to a lack of investor confidence.

The Singapore Business Federation's survey, involving 160 Singapore businesses, revealed that 93% of respondents viewed Johor as an attractive investment destination; 50% were already operating in the state. The SEZ should TRANSFORM CROSS-BORDER TOURISM, Seamless Road-Truck FREIGHT for Industrial Goods/Services, E-Commerce, FMCG Goods, and Food/Agri Supply Chains. Multi-modal trade and supply chains between Industrial Clusters, Ports and Airports between both countries may improve. This would have a synergistic and multiplier effect on Cross-Border Cargo/Freight Reconfiguration from Singapore to Southern China via Malaysia, Thailand, Cambodia, Laos, Vietnam and Kunming. The completion of the 640km East Coast Rail Link (ECRL) project by 2026 from Kota Baru to Port Klang on the west coast will open a new trade corridor with potential benefits to both countries.

Digitalisation of trade documents and trade facilitation with harmonised customs clearance and hassle-free security protocols will need to be mutually agreed and finalised. Tax and custom duty incentives and supporting financial systems will need to be better integrated to facilitate cross-border financial investments.

Apart from benefitting Manufacturing, Warehousing and Distribution Logistics, the SEZ will also facilitate the Managerial and Technical TALENT POOL, leveraging on each

other's educational institutions and strengths in skilled/semi-skilled manpower.

**E-COMMERCE/ LAST MILE DELIVERY** - As a result of the strong growth in the E-commerce/online retail businesses, especially in the F&B sector, URA, LTA and NTUC are actively engaging the industry to help address 'pain points' and smoothen multifarious Last Mile Delivery issues that impinge on 416 condominiums, 153 malls and 112 offices. The 'COURIER HUB' 3-month trial conducted in 2021 to enable logistics companies to use designated spaces in HDB carparks to unload and sort parcels for door-to-door deliveries was successful. It is likely that a FULL-SCALE COURIER HUB will be launched in due course.



**AIR** — Following SATS major acquisition of Worldwide Flight Services, a global air cargo logistics operator, in 2023, SATS has a global network with significant presence in major international airports across America, Europe and Asia Pacific. SATS global footprint covers 201 air cargo logistics and ground-handling stations in 23 countries. SATS also announced a strategic collaboration with Japan's Mitsui & Co to jointly develop and grow their respective food and retail businesses, especially ready-to-eat food products.

**SEA** — The Gaza conflict and the major Red Sea shipping disruptions and ocean liner diversions via South Africa have adversely affected shipping schedules and PSA's port operations in Singapore since early this year.

PSA has been experiencing serious port and yard congestions, with 90% of container ships arriving off-schedule. To cope, PSA had expanded its frontline handling capacity by commissioning NEW BERTHS in Tuas Port and reactivating berths and yard capacity at Keppel.

With an anticipated spike in Chinese exports, as manufacturers in China rush to beat the upcoming US tariff impositions, the port congestions in Singapore and other regional ports are unlikely to improve soon.

**OIL SPILLS** – A collision between a dredging boat and bunker vessel triggered an oil spill that spread to Labrador, Sentosa and East Coast Park. PSA led the multi-agency crisis response to contain the spread, disperse the spill and clean up the coasts and beaches, as well as minimise the environmental impact.



**MILITARY LOGISTICS — RSAF** – a C-130 was recently involved in complex and challenging airdrop HUMANITARIAN LOGISTICS operations, involving 10 missions over the war-torn Gaza, dropping about 20,000 tons of supplies - 60,000 meals - for the civilian victims.

NDP 2024 - RSAF's logistics team is busy planning, rehearsing and supporting the NDP mission involving a mixed fleet of C-130, Apache Attack and Chinook helicopters, and F-16 fighter jets. In addition, surface-to-air ground-based air defence systems will be involved in the dynamic display.

**RSN** - A Singapore Navy formidable Class frigate, RSS Stalwart, was recently involved in

“High-end Naval Warfare” training with other navies at the Exercise Rim of the Pacific (RIMPAC). This is the 9<sup>th</sup> time since 2008 that the RSN has taken part in Exercise RIMPAC. Hosted by the US Navy, it is the world’s largest international maritime exercise. The 36-day naval warfare exercise involved 40 ships, 150 aircraft and 14 national land forces. More than 25,000 military personnel from 29 countries were involved in the multi-lateral naval warfare exercise off Hawaii.



**SAF (Army)** - At the recent SAF Day rededication ceremony, the Government reaffirmed its commitment to defence spending. For overseas realistic training at the Shoalwater Bay Training Area (Exercise Wallaby) in Australia, the number of soldiers for training will be progressively increased from the current 6,000 to 14,000 a year in 2028. The SAF played a major supporting role during the Covid pandemic as well as continuing to support overseas Humanitarian Aid, as demonstrated during the successful air drops of food and medical supplies in Gaza.

I am pleased to share that RMIT (Melbourne) and CILTS held a presentation-cum-panel discussion on ESG Sustainable Supply Chains, featuring RMIT’s research efforts on a simplified Sustainable Procurement Disclosure Index (*see feature on page 8*).

**Karmjit Singh**  
**Chairman**



## CILT INTERNATIONAL NEXT GENERATION GLOBAL ACTIVITY REPORT 2023 – 2024

Gain an insight into the latest activities and developments from our [Next Generation Forum](#), with the 2023-2024 global activity report for chapters across the globe – now available to [read and download here](#).

The CILT International's **Next Generation Forum** is dedicated to nurturing and educating future professionals in the logistics, supply chain and transport sectors. This year's global activity report highlights our key initiatives, innovative programmes and impactful collaborations across the world.

## WiLAT GLOBAL NEWSLETTER – WINGS OF CHANGE

Read WiLAT's July 2024 issue of its newsletter, [Wings of Change](#).



For information on joining WiLAT, please contact WiLAT Singapore Chairperson Kelly Lee at [WiLAT.SG@cilt.org.sg](mailto:WiLAT.SG@cilt.org.sg)

## CILT INTERNATIONAL COUNCIL OF TRUSTEES WEBINAR 3 SEPT 2024, 5.00 PM (SGT)

WEBINAR | 10.00 - 12.00 BST

### MEET THE COUNCIL OF TRUSTEES

3<sup>RD</sup> SEPTEMBER 2024

Register today to join our Council of Trustees for an introductory webinar giving you the opportunity to get to know the leaders of CILT International, ask questions and find out about the future plans and strategy for the Institute.

We are excited to announce the first exclusive online webinar to meet with the Council of Trustees for CILT International, which guides and structures the Institute's activities.

For CILT members only. You will have the chance to:

- Ask any pressing questions and present any queries for our Trustees about CILT's activities, initiatives and future plans
- Gain further transparency and visibility into the workings of the Institute
- Understand how the Council of Trustees supports individual members and the wider CILT community as a whole

[Register for the webinar](#)

**SEE THE BUZZ:  
CILTS, Members & Friends**

**CSSCOM CPL GRADUATION**

**26 JULY 2024**

Our heartiest congratulations to the second **Combat Service Support Command (CSSCOM) Certified Professional Logistician (CPL)** cohort of 12 **Senior Officers from the Army Combat Service Support Operations Centre (ACSSOC)** and the 3rd cohort of 13 **Senior Officers from the CSS Executive Masterclass**.

These 25 Senior Officers successfully completed CILTS' Supply Chain Professional Development (SCPD) advanced modules 5 to 8, and were awarded CILTS' CPL certification at a graduation ceremony held at Kranji Camp III, Choa Chu Kang Way on 26 July 2024.



CILTS Board Directors with CPL Graduands and CSSCOM leadership at the Graduation Ceremony.



ME6 Lee Chee Kiang and ME5 Lim Zhi Han (left and right respectively) receiving the **CILTS Book Prize** for outstanding performance in the CSSCOM/CILTS CPL Programme.

**CILTS HOSTS MALAYSIAN UNIVERSITY VISIT**

**16 JULY 2024**

In support of our friends from **CILT Malaysia**, CILT Singapore hosted an educational visit from undergraduate students of the **Universiti Kuala Lumpur Malaysian Institute of Aviation Technology (UniKL MIAT)** at its office premises on 16 July.

The group also visited Changi Airport as part of their study visit.



Chairman Karmjit Singh shared with the Malaysian delegation of 32 his perspectives on **“Singapore as a Logistics Hub”**.



 **Future Ready**  
Business Series

 **RMIT**  
UNIVERSITY

# Catalysing change: Exploring the role of procurement in sustainable development

15 July 2024, 6.00pm - 9.30pm

## Hosted by RMIT and supported by CILT Singapore

Earlier this year, leading academics from RMIT launched the **Sustainable Procurement Disclosure Index**, which assesses Australia's top 200 businesses and their level of transparency in reporting sustainable procurement practices.

On 15 July 2024, RMIT held a networking and discussion session on the Index with Singapore businesses, government, community, and RMIT academics and collaborators from **Australia, Malaysia and Vietnam**.



The seminar was well-attended by more than 130 participants from the public and private sectors, and the academia, including 15 senior officials from Government ministries and MINDEF, 7 Board Directors from CILT Singapore, senior executives from leading global organisations, industry professionals, academia from local and overseas universities, and RMIT alumni and staff.

Associate Professor Charles Lau, Deputy Head of the Department of Supply Chain and Logistics in the School of Accounting, Information Systems and Supply Chain at RMIT University in Australia delivered the keynote address on [Catalysing change: Exploring the role of procurement in sustainable development](#).



Dr Lau’s presentation covered:

- **Introduction and overview on the SPD Index**
- **The SPD Index is a global project that started in Australia and now reaching the Asia Pacific region.**
- **SPD Index partnership with Universiti Teknologi MARA (UiTM) in Malaysia to apply the same methodology there.**
- **How this methodology might be applied in the Singapore context.**
- **The vision for the Index and the strategy on how to get there.**

Mr Eugene Yam, Asst Vice President of the Economic Development Board also made a presentation on Sustainable Supply Chains. Following the presentations, the Expert Panel held its discussions, facilitated by Prof Vinh Thai from RMIT University.

**The Expert Panel comprised:**



**Professor Vinh Thai**  
Logistics & Supply Chain Management  
**RMIT UNIVERSITY**



**Karmjit Singh**  
Chairman  
**CILT SINGAPORE**



**Wei Chien Yoong**  
Director - Environmental, Social &  
Governance Controller  
**CARGILL**



**Ter Long Tay**  
Chief of Government Procurement  
**MINISTRY OF FINANCE**  
**SINGAPORE**



**Tom Kruse**  
Head of Procurement, Asia Pacific  
**DB SCHENKER**

## The buzz at RMIT event...





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# TRADING POST TO GLOBAL HUB

*Singapore's journey from a modest trading post to a leading global aviation and maritime hub is a tale of visionary leadership, strategic planning and relentless pursuit of progress. This report explores the transformative path Singapore has taken, the hurdles it has overcome, the lessons it has learned, and the vision it holds for the future, along with the challenges that lie ahead.*

## The Genesis: Singapore as a Trading Post

From the 1800s since its founding by Sir Stamford Raffles right up to the mid-1900s, Singapore emerged as a vital trading post, strategically located along major sea routes connecting the East and the West. Its natural harbour and favourable geographical position attracted merchants from around the world, fostering a bustling hub of commerce and trade.

## The Humble Beginnings



In the 1960s when Singapore was struggling for independence, the nation's landscape was vastly different from the bustling metropolis we see today. It was a time of uncertainty and hardship as Singapore had just gained independence. The small island nation, lacking natural resources, faced the daunting task of building an economy from scratch. The government, led by the late Prime Minister Lee Kuan Yew, recognised the potential of leveraging Singapore's strategic location as a trading port to kickstart economic development.

## Overcoming Challenges

The initial challenges were significant. Singapore had to create a conducive business environment, develop infrastructure and establish international trade relations. The government embarked on a series of economic reforms, promoting foreign investments and diversifying the economy.

One of the pivotal moments was the development of the Jurong Industrial Estate, which transformed a swampy land into a thriving industrial zone, attracting international companies and investments, thereby boosting the economy.

However, Singapore's journey to aviation and maritime excellence was not without challenges. Rapid urbanisation, land scarcity, environmental concerns, and global economic fluctuations presented formidable obstacles along the way. Additionally, intensifying competition from regional neighbours and evolving technological landscapes necessitated continuous adaptation and innovation.

## Lessons Learned

Singapore's growth taught several key lessons. The importance of a meritocratic and efficient civil service, the need for pragmatism in policy-making, and the benefits of a culture that values education and hard work were all crucial elements of Singapore's success. The city-state also learned the significance of maintaining a clean and stable political environment, which was instrumental in attracting foreign investments.

## Aviation Hub: A Skyward Ascent

Singapore's aviation journey took flight with the establishment of Singapore Airlines (SIA) in 1972. Under visionary leadership and a commitment to service excellence, SIA quickly gained a reputation as a world-class carrier. Singapore's Changi Airport, consistently ranked among the best in the world, became a pivotal gateway connecting continents and facilitating seamless travel experiences.

## Maritime Excellence: Navigating Waters of Success

Parallel to its aviation success, Singapore emerged as a maritime powerhouse. The development of state-of-the-art port facilities, including the iconic Port of Singapore, propelled the nation to the forefront of global shipping and logistics. Today, Singapore stands as the world's leading transshipment hub and a beacon of maritime innovation and efficiency.

## Vision for the Future



Looking ahead, Singapore's vision is to continue its growth as a global aviation and maritime hub. The development of Terminal 5 at Changi Airport is a testament to this ambition, aiming to serve 50 million passengers per year upon completion in the mid-2030s. In maritime affairs, the Port of Singapore continues to expand its capacity, with the annual vessel arrival tonnage crossing three billion Gross Tonnage for the first time in 2023.

Singapore remains steadfast in its commitment to sustainable growth and resilience. Embracing digitalisation, green technologies and innovation will be crucial in navigating the complexities of the 21st century. The development of Tuas Mega Port, set to be the world's largest fully automated terminal, underscores Singapore's unwavering dedication to staying ahead of the curve.

## A Continuing Saga of Success

Singapore's journey from a trading post to a global aviation and maritime hub is a testament to the nation's resilience, foresight, and unwavering determination. As it charts its course into the future, Singapore remains poised to overcome challenges, seize opportunities, and write the next chapter in its remarkable saga of success.

# Charting A New Course for the Future

Despite its successes, Singapore faces an array of challenges in charting its future course. Geopolitical tensions, economic uncertainties, and shifting consumer preferences pose existential threats to its aviation and maritime industries. Balancing growth with environmental conservation and social equity will also require deft navigation and decisive action.



The road ahead is not without its challenges. Climate change poses a significant threat, with the potential to disrupt air travel and affect critical infrastructure. Competition from regional hubs like Kuala Lumpur, Bangkok and Hong Kong, as well as long-haul flights bypassing Singapore, could also impact its hub status.

Singapore's transformation is a story of resilience and innovation. As the country faces the future, the lessons of its past, the strength of its present, and the clarity of its vision will continue to guide this small island nation towards greater heights in the global arena. The challenges ahead are real, but if history is any indication, Singapore is well-equipped to meet them head-on and emerge stronger.



# HUB OF HUBS

Bringing Connectivity to the Next Level

Listen to this article 9 min

## Singapore: A Global Trusted Hub

### A Strategic Geographical Masterstroke

Nestled at the crossroads of major trade routes, Singapore's geographical location has been its first and most natural advantage. The nation's founders capitalised on this, transforming a modest port into a bustling gateway for global trade.

Singapore's geographical location at the crossroads of major shipping routes in the heart of Southeast Asia makes it an ideal gateway to the region. Its deep-water ports and excellent air connectivity enable efficient trade and transport, facilitating the movement of goods, services, and investments. The Port of Singapore, one of the busiest ports in the world, serves as a vital hub for maritime trade, handling millions of containers annually.

Additionally, Changi Airport, Singapore's award-winning aviation hub, offers extensive flight connections to over 150 cities globally, further enhancing its position as a global transport and logistics hub. As a result, Singapore has become a key logistics and distribution centre, enhancing regional trade and driving economic integration.



## Aviation Hub: Changi Airport - The Sky's the Limit

Changi Airport stands as a testament to Singapore's air supremacy. Regularly crowned as the world's best airport, Changi connects Singapore to over 150 cities. It's not just the numbers that impress; it's the experience. From verdant indoor gardens to mesmerizing kinetic art installations, Changi is a destination in itself. To position Changi Airport for the future, an ambitious project to build **Terminal 5** at Changi is underway, which will be operational in the mid-2030s. **Terminal 5's footprint will be as large as Terminals 1, 2, 3 and 4 combined!**

**Singapore's Air Connectivity:** As a leading aviation hub, Changi Airport serves 94 airlines (as of 1 July 2024), connecting Singapore to 158 cities in 50 countries.

**Infrastructure and Services:** Changi's success is underpinned by its world-class infrastructure, including multiple passenger terminals and airfreight terminals, ready to meet future demands.

**Economic Impact:** The aviation sector significantly contributes to Singapore's GDP and employment, supporting various industries from tourism to logistics.

## Maritime Hub: Port of Singapore - A Maritime Marvel

On the seafront, the Port of Singapore has been the busiest in terms of shipping tonnage since 1986, with links to over 600 ports worldwide. Its state-of-the-art facilities and rapid turnaround times have earned it the title of "Best Global Seaport" repeatedly.

In gearing up for the future, **Tuas Port** is progressively being expanded and will be the **world's largest fully automated container terminal upon completion in 2040.**

- **World's Busiest Transshipment Hub:** Singapore Port has maintained its status as the world's busiest transshipment hub, handling record throughput and facilitating global trade.

- **Advanced Facilities:** The port's advanced facilities and strategic maritime policies ensure efficient and secure sea routes, contributing to its global trade leadership.
- **Maritime Policies:** Singapore's maritime policies focus on innovation, productivity, and human capital development to maintain its competitive edge.

## Innovation and Technology Hub: A Smart Nation

- **Singapore has positioned itself as a leading innovation and technology hub.** The government has launched various initiatives, such as Smart Nation and Industry Transformation Maps, to promote digitalisation, research and development, and the adoption of emerging technologies. The presence of research institutes, technology parks, and startup incubators has nurtured a vibrant ecosystem for innovation and entrepreneurship. Singapore's focus on emerging sectors like fintech, biotech, and digital services positions it as a testbed for new technologies and solutions, attracting global companies and investors seeking to tap into the region's potential.
- **The country's commitment to research and development** is evident through the establishment of research centres, such as the Agency for Science, Technology and Research (A\*STAR), and its generous funding for research projects.

## Financial Hub: Trusted Financial Centre of the World

- **Singapore's robust financial sector is a key driver of economic growth in the region.** The city-state is home to numerous global banks, financial institutions, and investment firms. Its well-regulated financial system, strong currency, and advanced capital markets make Singapore an attractive destination for capital investment, wealth management, and regional treasury operations.
- **The Monetary Authority of Singapore (MAS), the country's central bank,** has fostered an environment conducive to financial innovation and technology, leading to the growth of fintech and digital payment solutions. The availability of venture capital and private equity funding has also nurtured a thriving startup ecosystem, fuelling innovation and technological advancements across Southeast Asia.

## Global Trade Facilitation: Gateway to Global Markets

Singapore's extensive network of free trade agreements, its pro-business environment, and its robust legal framework have made it a beacon of trade facilitation. The nation's trade ecosystem is designed to be as seamless as possible, encouraging innovation and growth.

- **Network of Free Trade Agreements:** Singapore's extensive network of FTAs enhances its global connectivity, providing cost savings and clear standards for businesses operating in the region. The nation has signed Digital Economy Agreements with Australia, Chile, New Zealand, South Korea and United Kingdom. These agreements establish digital trade rules and foster digital economy collaborations.
- **Facilitating Global Trade:** Singapore's strategic location and commitment to trade facilitation schemes like the ASEAN Free Trade Area bolster its role in global trade.
- **Adapting to Challenges:** Initiatives like the ASEAN Single Window and digitalisation efforts have helped Singapore maintain its hub status amid global challenges.

## Sustainability and Future-Proofing

Ranked fifth globally for sustainable trade practices, Singapore is not just about growth but responsible growth. The vision for Singapore Economy 2030 includes a strong focus on sustainability, ensuring that the nation's hub status is maintained without compromising the environment.

- **Sustainable Trade Practices:** Singapore is committed to sustainable practices, balancing economic growth with environmental stewardship.
- **Vision for 2030:** The Vision for Singapore Economy 2030 focuses on trade, enterprise, manufacturing, and services, emphasizing digitalisation and innovation.
- **Digitalisation and Innovation:** Digital transformation is key to maintaining Singapore's status as a global hub, with initiatives to enhance efficiency and resilience.

## A Hub of Hubs

**Singapore is more than just a hub; it's a hub of hubs. A place where air and sea converge, where east meets west, and where the future of global connectivity is shaped. As the world evolves, so does Singapore, always connected.**

# Lee Kuan Yew's Maritime Legacy



**"Singapore's raison d'être when it started was the port. And Singapore must strive to remain a major hub port. From a labour-intensive industry, the port evolved into a knowledge hub employing cutting-edge IT systems. It has given Singapore a first-mover advantage that continues to pay good dividends to the economy. The development of Maritime Singapore is about anticipating the future, adapting to change, creating and seizing opportunities, and the pursuit of excellence."**

~ LEE KUAN YEW

One man's vision had charted a course to prosperity Singapore's rapid progress to become a Global Maritime Hub and one of the world's busiest ports today. Mr Lee Kuan Yew's contribution to Maritime Singapore started even before the country's independence. As legal advisor to the Singapore Harbour Board Staff Association, he passionately advocated for the rights of port workers. This led to the formation of the Singapore Port Workers Union in 1968.

This video pays tribute to Mr Lee's foresight and leadership that was instrumental in "Driving Connectivity" for Singapore and shaping Singapore to what it is today – a leading international maritime centre!

Credits: PIL, Singapore Shipping Association

**VIDEO (7:42 min)**

Lee Kuan Yew's Maritime Legacy



# ENHANCING MARITIME RESILIENCE

## Managing Oil Spill Response Operations & Logistics

The Port of Singapore currently holds the title as the **world's top transshipment port** – an intermediate stop for cargo on its way to another destination – and the **second-busiest port globally**, after Shanghai.

Singapore's strategic location as a maritime hub inevitably places it at risk of oil spills. On 14 June 2024, a major oil spill was caused by a dredging boat hitting a stationary bunker vessel at Pasir Panjang Terminal. More than 400 tonnes of oil spilt into Singapore waters, which affected mainly the southern coastline of Singapore.

The prompt response of containment, cleanup and restoration measures taken following the incident was reported by local and international media.

### **CLEANUP EFFORTS IN THE FIRST 24 HOURS**

**June 14, 2024, 2.18pm**

#### **Crash involving two vessels occurs**

Netherlands-flagged dredger Vox Maxima suffers a sudden loss of engine and steering controls, and hits Singapore-flagged bunker vessel Marine Honour, which is stationary. About 400 tonnes of fuel leaked into the sea.

**June 14, 2024, 2.22pm**

**Maritime and Port Authority of Singapore (MPA) is notified of the incident.**

**June 14, 2024, 2.33pm**

**First patrol craft reaches site**

MPA deploys its nearest patrol craft to the site, and sprays dispersants on the spill after assessing the situation. MPA checks on the safety of the crew and damaged vessels, and that the oil spillage is under control. Another 11 vessels help in areas such as spraying dispersants and monitoring for oil slicks.

**June 14, 2024, 2.55pm**

As a precaution, a boom contractor is activated to lay containment booms around Marine Honour, in case of further spillage.

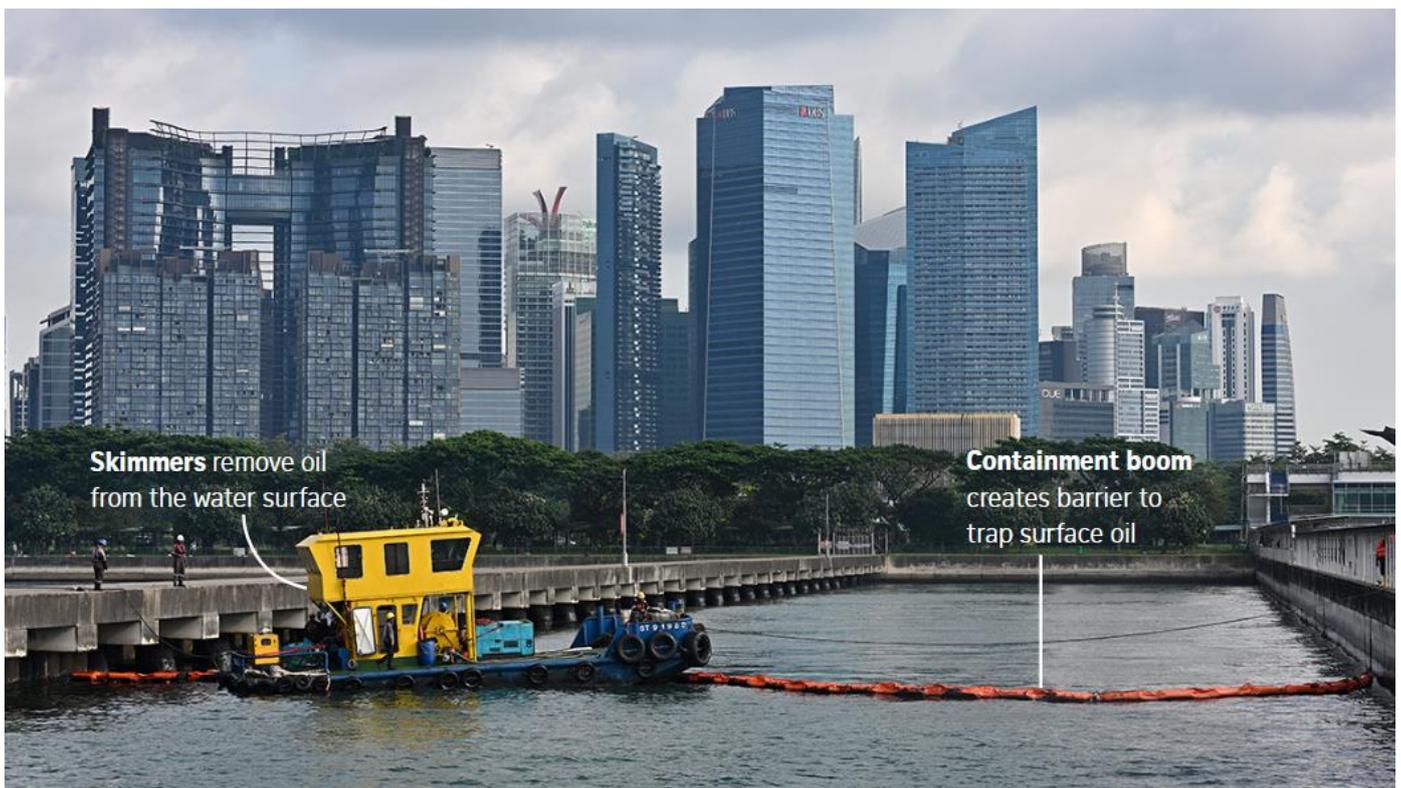
**June 14, 2024, 9.41pm**

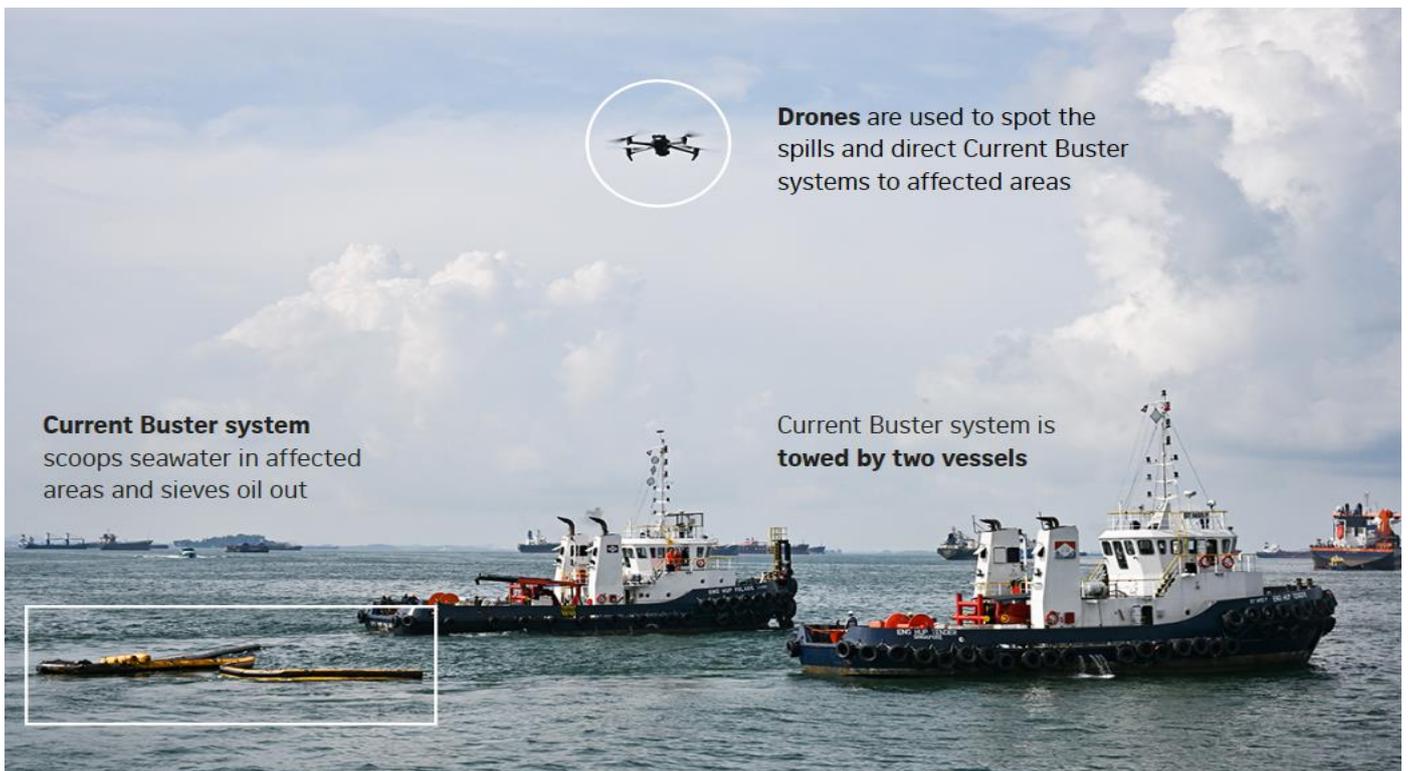
Boom contractor arrives at the site and works through the night.

**June 15, 2024, 5.15am**

Deployment of 200m of booms is completed.

Click [HERE](#) for a detailed graphical illustration of the oil spill incident and the immediate cleanup actions (source: The Straits Times).





## Challenges in Oil Spill Response & Logistics

1. **Rapid Action:** Quick response is crucial. Delays worsen contamination and hinder recovery.
2. **Coordination:** Effective collaboration among government agencies, industry stakeholders and NGOs is essential.
3. **Resource Allocation:** Allocating personnel, equipment and funds efficiently during a crisis.
4. **Public Awareness:** Educating communities about spill risks and response measures.
5. **Long-Term Restoration:** Beyond cleanup, restoring ecosystems can be a lengthy process.

**Singapore has proactively addressed oil spill risks by investing in prevention, preparedness and response. Balancing environmental protection and community well-being is an integral part of working towards a resilient maritime future. Lessons learnt from the June 14 incident will bolster our future response speed and effectiveness in tackling oil spills.**

Listen to this article 6 min

# OIL SPILLS AT SEA

## Complex, Multi-Agency, Multi-Faceted Response

Oil spills at sea pose formidable environmental, economic and safety challenges. Unlike a land crisis where the incident site remains largely static and geographically contained, an oil spill at sea presents an expanding and irregular boundary area, significantly affected by sea currents, tides, weather conditions and daylight availability for recovery actions.

**Such incidents need to be managed by a holistic approach, requiring multi-agency and multi-faceted responses. These involve complex logistics and crisis management measures, with command and control of diverse sea, land and air assets and manpower, operating under time pressure, especially during the initial phase of the crisis.**

In this article, we delve into the intricacies of addressing major oil spills, citing examples of historical incidents, lessons learned and future technological advancements.

## Complexity of the Crisis

### 1. Logistics and Coordination:

- Responding to an oil spill involves orchestrating a vast network of resources, including vessels, equipment, personnel, and communication channels.
- Coordinating efforts across different agencies, governments, and private entities is essential to ensure an effective response.

### 2. Crisis Management:

- Assessing risks associated with oil spills requires understanding spill trajectories, environmental impacts, and potential harm to human health.
- Balancing immediate response actions with long-term consequences is critical.

### 3. Manpower and Assets Deployment:

- Skilled personnel, specialised equipment (such as containment booms, skimmers, and dispersants), and vessels must be rapidly deployed.
- Efficient allocation of resources is crucial to minimize spill spread and mitigate damage.

## Environmental Impact

1. **Habitat Destruction:** Oil spills harm marine ecosystems, affecting coral reefs, mangroves and coastal habitats. The toxic compounds in oil may disrupt food chains, water supplies and reduce biodiversity.
2. **Contamination:** Oil coats water surfaces, impacting water quality and threatening aquatic life. If left to persist, it can affect sediment and soil.
3. **Chemical Dispersants:** While dispersants break down oil, they introduce chemicals that may have their own ecological consequences.
4. **Weather Conditions:** Wind, currents and tides influence the spread and dispersion of spilled oil.
5. **Scale of Spill:** Larger spills overwhelm response efforts, making containment and cleanup challenging.

## Societal Impact

1. **Economic Disruption:** Oil spills disrupt local economies. Tourism, leisure and shipping industries suffer losses due to closures and asset damage.
2. **Safety and Health Risks:**
  - Effects on potable water quality.
  - Exposure to oil and its fumes poses health risks to responders.
3. **Psychological Stress:** Communities near spill sites experience anxiety, depression, and fear. Witnessing environmental devastation takes a toll on mental health.
4. **Loss of Livelihood:** Tourism and leisure businesses, boat and craft operators, and sea sports activities face financial difficulties.
5. **Community Conflict:** Disagreements arise over compensation, liability, and restoration efforts. Trust in authorities may erode.

## Lessons from Historical Incidents

1. **Deepwater Horizon (2010):**
  - The Deepwater Horizon disaster in the Gulf of Mexico highlighted the need for improved blowout preventers, better well control and enhanced safety protocols.
  - Lessons included the importance of transparency, accountability and regulatory oversight.

## 2. Exxon Valdez (1989):

- The Exxon Valdez spill in Alaska emphasized the need for rapid response, early containment and effective cleanup techniques.
- It led to stricter regulations, improved tanker safety and better spill response planning.

## Technological Advancements

### 1. Remote Sensing and Monitoring:

- Satellites and drones can track spills, assess their size, and guide response efforts.
- Real-time data enhance decision-making and resource allocation.

### 2. Bioremediation and Nanotechnology:

- Bioremediation uses microbes to break down oil, while nanomaterials absorb pollutants.
- Research in these areas continues to evolve.

### 3. Robotics and Autonomous Systems:

- Robotic vessels and underwater drones can operate in hazardous conditions.
- They assist in containment, monitoring, and cleanup.

**Addressing major oil spills requires collaboration, innovation and a commitment to safeguarding our seas and oceans. By learning from past incidents and embracing cutting-edge technologies, we can minimise the impact of these disasters and protect our environment for future generations.**

#### **FURTHER READING RESOURCES:**

- Download: [Oil Spill Risk Assessment](#)
- [Oil spill contingency plan](#)
- [Managing major oil spills in the Straits of Malacca](#)
- [Oil Spill Environmental Sensitivity Index](#)

Listen to this article 8 min

# INTEGRATED PUBLIC TRANSPORT

## The LTA Story

### Our History

In the early days of nation building, public infrastructure was managed by the Public Works Department. This included the building of carparks, bridges, sewage systems, housing, libraries, and even bus shelters. As the scope of transport planning grew, a new entity was needed.

**On 1 September 1995, four public entities – the Registry of Vehicles; Mass Rapid Transit Corporation (MRTC); Roads & Transportation Division of the Public Works Department; and Land Transportation division of the Ministry of Communications – merged to form the Land Transport Authority (LTA).**

In the early 1900s, getting around Singapore was a challenge. Those who did not drive had to use rickshaws, ‘pirate’ taxis, or the slow and unreliable public bus services.

The completion of the State and City Planning Project (SCP) in 1971 led to Singapore’s first concept plan that envisaged a network of expressways and a mass rapid transit (MRT) system to provide islandwide connectivity. In the 1970s, the Road Transport Action Committee was set up to plan for a growing transport system and manage traffic congestion.

### Taking Buses into the Modern Age

In 1970, based on a White Paper recommendation, 10 Chinese bus companies were consolidated into three which then merged in 1973 to form the Singapore Bus Service (SBS).

In 1974, Government intervention led to the regulation and improvement of services, streamlining of bus routes, training for staff, repairing bus fleets and implementing policies to raise overall standards. The Bus Lane Scheme for peak hours was implemented in 1974 and enhanced over the years. In 1975, the City Shuttle Service Company began to serve commuters working in the Central Business District.



To develop a more competitive and diverse bus industry, a second bus operating license was issued to Trans-Island Bus Services (TIBS) in 1982. In 1987, the SBS, SMRT and TIBS jointly set

up TransitLink to develop a common fare platform. It would later become a subsidiary of LTA to manage concession schemes.

Over the next few decades, buses evolved with improvements to capacity, comfort and accessibility. In 2006, nine wheelchair-accessible buses (WABs) were introduced. All buses will be wheelchair accessible by 2020.

LTA introduced the Bus Service Enhancement Programme (BSEP) in 2012 and the Bus Contracting Model (BCM) in 2016 to enhance connectivity and improve bus service levels. These LTA bus regulations serve to encourage competition, raise service standards and make public bus operators more responsive to changes in ridership and commuter needs.

In tandem with the transition to BCM, a nation-wide vote was held to decide on new bus livery. The winner, Lush Green, edged out Bright Red by 114 votes, and is now used for all government-owned Singapore buses.



## Our Rail System

The vision for a rail system started as early as 1967, just two years after independence, but only picked up steam in the late 1970s. In 1981, a Comprehensive Traffic Study concluded that a mass transit rail system would best complement the existing bus network. This was met with opposition, with high cost being a main factor. Lively discussions in parliament, the press and among the public, known as the 'Great MRT Debate', culminated in a rare televised discussion. Even Harvard University specialists brought in to consult on the matter preferred an expansion of the bus network. Ultimately, the rail-based option prevailed, and the construction of Singapore's first rail line began in 1983.



[Expansions and upcoming projects](#) continue on our rail lines, with the goal to have 8 in 10 homes located within a 10-minute walk from a train station. LTA also continues to renew the

system; build, replace and upgrade rail assets; maintain the reliability of the network; and ensure that operators provide quality services.

## Developing Roads and Managing Traffic

Developing and regulating Singapore's land transport network is a balance between improving road capacity and maintaining a sustainable vehicle population while managing traffic flow. Development of bus and rail services has been matched by new infrastructure and policies to manage growing vehicle ownership. In 1967, the government commissioned a new land use and transport plan, later known as the Concept Plan, that would guide the location of the first expressways in Singapore.

## An Integrated Public Transport System

With the rail system bringing added connectivity to the bus and road network in the 1980s, Singapore's public transport system moved towards a more integrated model. LTA has worked to make [getting around Singapore](#) seamless, safe and efficient, whether on buses, aboard trains, by taxi or private hire cars, or on foot, bicycles or personal mobility devices.

The first step towards integration was the launch of a stored value magnetic strip fare card in 1990. This common payment system for bus and rail paved the way for contactless cards and the setting-up of EZ-Link as an [LTA subsidiary](#). As the MRT system expanded to complement bus services, public transport operators also evolved. Bus operator TIBS and train operator SMRT merged in 2001, while bus operator SBS renamed itself as SBS Transit, reflecting the multi-modal nature of their companies.

The development of [Integrated Transport Hubs](#) allows commuters to seamlessly run errands in air-conditioned comfort as part of their journey. The first hub at Toa Payoh opened in 2002. At the same time, five older MRT stations (Dhoby Ghaut, Outram Park, Somerset, Novena and Tampines) were upgraded to include disabled-friendly facilities. Distance fares were implemented in 2010 for a more equitable fare structure, and give commuters more flexibility and encourage them to take the most efficient travel route, whether by bus or train.

By 2013, the focus moved towards increasing public transport usage, increasing connectivity, improving journey times and ensuring that more train stations were closer to homes. The aim of the Walk Cycle Ride initiative was to make access to transport hubs more seamless. The [Land Transport Master Plan 2040 \(LTMP 2040\)](#) will set the vision for 2040 and the future of land transport in Singapore.

As we move towards a car-lite future, we are exploring more commuting options. In addition to improving walking and cycling facilities, we are tapping on the [potential of new technologies](#) such as the latest in autonomous and electric vehicles, and other intelligent systems, to better allocate resources and shape the future of commuting to be even more safe, reliable and comfortable.

SOURCE

[Land Transport Authority](#)

Listen to this article 2 min

## ***"Singapore's public transportation system is greatly enhanced by the strategic use of open data and contactless payment technologies."***

The BBC speaks to residents in five of the top-ranked cities in the Smart Cities Index 2024 to understand which features are making the most impact to their lives. Here's what they say about Singapore.

### SINGAPORE

Ranked fifth in this year's index, Singapore jumped two places in the rankings thanks to high scores in safety (enabled by CCTV), high connectivity that makes schooling and traffic monitoring easier, and online reporting and document processing that enables seamless dealing with government bureaucracy.

"Singapore's public transportation system is greatly enhanced by the strategic use of open data and contactless payment technologies," said Firdaus Syazwani, long-time resident and founder of personal finance resource Dollar Bureau. "Together this streamlines travel and makes it exceptionally convenient for residents and visitors alike."

He mentions that both **the government and private companies publish extensive datasets about traffic patterns, bus and train schedules and crowd sizes at stations, which app developers and urban planners can then leverage to build solutions for commuters – helping them optimise their travel routes, save time and ultimately reduce city congestion.**

Resident Kirk Westaway, executive chef at two-Michelin-starred restaurant JAAN, also points to the small touches that make a big difference in day-to-day life, especially in public transportation. **"[Quick] contactless payments and real-time data mean you're not left waiting wondering if you'll get to your destination on time,"** he said.

In addition, Westaway highlights Singapore's focus on sustainability within its smart city framework. **"Technology is leveraged to spearhead sustainability efforts, and urban farming is becoming a way of life here,"** he said. [The Aquaponics Farm at Swissôtel The Stamford](#), which optimises growing space without soil and minimises water usage for fresh produce, provides one example of how smart cities can integrate innovative solutions for food production in urban environments.

SOURCE

[BBC](#)

# TOTAL DEFENCE

## Marking 40 Years

In the growth of Singapore from a trading post to a global hub, Total Defence since its inception in 1984 has played a crucial role in safeguarding the nation against external and internal threats. It has enabled Singapore to remain stable and unite its people to forge a path of peace, prosperity and progress. Let's explore the transformation of Total Defence over the years:

### 1. Founding Years (1980s):

- **Military Preparedness:** The initial focus was on building a strong military force to deter external aggression. The Singapore Armed Forces (SAF) played a central role.
- **Civil Defence:** The concept expanded to include civil defence measures, emphasizing community resilience during crises.

### 2. Economic Defence (1990s):

- **Economic Resilience:** Singapore recognized the importance of economic stability. Efforts were made to diversify the economy and enhance competitiveness.
- **Public-Private Partnerships:** Collaboration between government, businesses, and citizens became crucial for economic defence.

### 3. Social Defence (2000s):

- **Community Bonding:** Total Defence emphasized social cohesion, encouraging citizens to support one another during emergencies.
- **Education and Awareness:** Schools and institutions actively promoted Total Defence education.

### 4. Digital Defence (2010s):

- **Cybersecurity:** The rise of cyber threats led to the inclusion of digital defence. SAF's Cyber Command was established.
- **Media Literacy:** Citizens were educated about online safety and responsible use of technology.

### 5. Psychological Defence (Recent Years):

- **Resilience Mindset:** Total Defence now includes psychological preparedness. Citizens are encouraged to stay resilient in the face of adversity.
- **National Identity:** Strengthening national identity and pride contributes to overall defence.

Indeed, Total Defence has evolved from a military-centric approach to a holistic framework that encompasses economic, social, digital and psychological aspects. It reflects Singapore's adaptability and commitment to safeguarding the nation against multifaceted threats.

## MARKING TOTAL DEFENCE AT NDP 2024



The [inaugural Total Defence segment](#) at the Padang will showcase how the community and government respond to various scenarios such as air and maritime threats as well as civil emergencies and disruptions. It will include 40 assets and more than 400 participants from the Singapore Army, Republic of Singapore Navy, Republic of Singapore Air Force, Digital and Intelligence Service, Singapore Police Force (SPF) and Singapore Civil Defence Force (SCDF).



The 6th Generation Light Fire Attack Vehicle (LF6G) is equipped with the second generation of the Red Rhino Robot (3R 2.0) to allow firefighters to operate from a safe distance during fire incidents.



The PUB water wagon is equipped with a 1,000L tank to provide potable water during water disruptions.

# What to look out for during the Total Defence segment at NDP 2024



**NEW: Colt Infantry Automatic Rifle 6940E-SG**

Singapore Army's new light machine gun



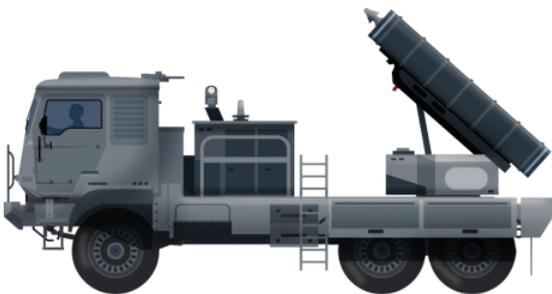
**NEW: Electric pump ladder**  
Singapore Civil Defence Force's next-generation fire engine



**NEW: Water wagon**  
PUB's debut in the Dynamic Defence Display



**F-16C/D Fighting Falcon**  
Republic of Singapore Air Force's tactical fighter aircraft with full air-to-air and air-to-surface capabilities



**Surface-to-Air PYthon-5 and DERby (SPYDER)**  
Republic of Singapore Air Force's air defence system equipped with radar-guided missiles with interception range of up to 15km



**Leopard 2SG Main Battle Tank (L2SG)**  
Singapore Army's tank with 120mm main gun, and a 7.62mm Coaxial Machine Gun



**3-Series PC Class Patrol Craft**  
Singapore Police Force's asset capable of achieving speeds of up to 92.6km/hr



**Combatant Craft Medium**  
Republic of Singapore Navy's rigid hull inflatable boat with 2 Mercury engines generating up to 350 horsepower each

Infographic: Rafa Estrada Source: MINDEF, Jun 21, 2024



# HUMANITARIAN LOGISTICS

## Singapore delivers 4<sup>th</sup> tranche of humanitarian aid to Gaza

**22 JULY** — To help with food insecurity in Gaza, Singapore sent 1,000 tonnes of white rice and 300 tonnes of canned sardines in what is the Republic's fourth tranche of aid to the war-torn strip over nine months. Singapore has contributed more than \$17 million in donations so far in response to the ongoing humanitarian crisis in the Gaza Strip.



Singapore sent [its first tranche of aid to Gaza](#) in November 2023, consisting of medical supplies and food provisions. In the same month, the Government deployed a Republic of Singapore Air Force (RSAF) aircraft to deliver about 10 tonnes of supplies to civilians there. In March, two RSAF aircraft and 69 personnel flew to Gaza and [delivered more than 20 tonnes of food supplies](#), equivalent to over 59,000 meals.

SOURCE

[The Straits Times](#)

# FAST TRACK INTO THE FUTURE



Listen to this article 4 min

# Pioneering the Next Wave in Logistics and Transport

Singapore, a bustling metropolis known for its efficiency and innovation, stands at the forefront of economic growth in the supply chain industry and transport sector. As the world pivots towards a more interconnected and technologically advanced future, Singapore is poised to lead the charge in several key areas.

## Artificial Intelligence (AI) in Supply Chain Management

AI is set to revolutionize supply chain management in Singapore. With its ability to process vast amounts of data and provide predictive analytics, AI can optimize logistics operations, enhance inventory management, and streamline route planning. This will not only increase efficiency but also reduce operational costs and improve customer satisfaction. Singapore's integration of AI in the supply chain is transforming the industry, making it more resilient and responsive to market demands.

## Digitalisation of the Transport Sector

Singapore's maritime sector is embracing digitalisation with initiatives like the Maritime Digitalisation Playbook, which aims to support maritime enterprises in leveraging digital technologies for growth. The digitalPORT@SG™ platform is another example, streamlining vessel-related transactions and improving port efficiency. These advancements are crucial for maintaining Singapore's status as a global maritime hub.

## Sustainability Through Technology

The city-state is committed to sustainable development, as outlined in the Singapore Green Plan 2030. Technology plays a pivotal role in this, enabling organizations to reduce their carbon footprint while continuing to thrive. From AI-enhanced food production to commercial rooftop farming, Singapore is leveraging tech to secure a sustainable future.



## Decarbonisation Initiatives

Singapore's maritime sector has a comprehensive decarbonisation blueprint aiming for zero emissions by 2050. The Port Authority of Singapore is preparing for a multifuel future, establishing a supply chain for zero-carbon fuels like green ammonia, hydrogen, and methanol. These efforts are critical for reducing the environmental impact of shipping and maintaining Singapore's competitive edge.

## Emerging Factors and Global Leadership

Singapore's strategic location and world-class infrastructure make it an ideal global leader in supply chain and transport. The upcoming Tuas mega port will enhance its transshipment capabilities, further cementing its role as a key node in global trade. Additionally, Singapore's strong Free Trade Agreement (FTA) network and unparalleled connectivity position it as a prime collaborator in international logistics.

Singapore's focus on AI, digitalisation, sustainability, and decarbonization, coupled with its ambition to lead and collaborate on a global scale, sets the stage for significant economic growth in the supply chain and transport sectors. The nation's proactive approach to embracing emerging technologies and trends will undoubtedly shape the future of global logistics and transportation.



# Bringing Trade into the Web 3.0

## HOW SINGAPORE IS TRANSFORMING DIGITAL TRADE

Listen to this article 3 min

In August 2023, a group of Singapore and Indian companies and banks successfully executed the world's first fully paperless cross-border transaction involving traders, shippers and banks.

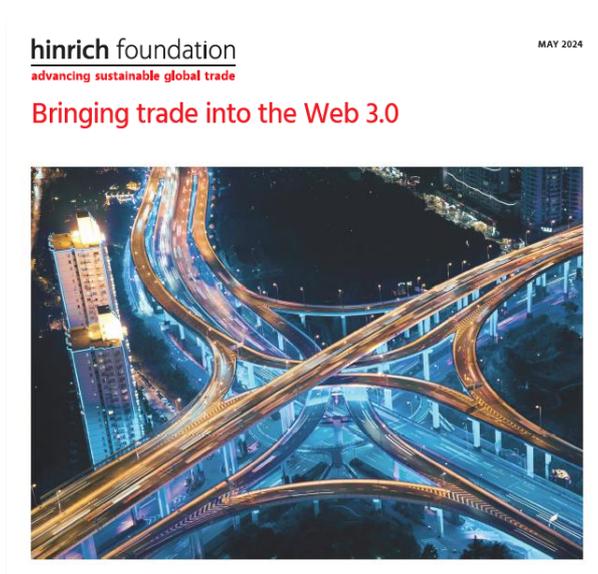
Leveraging the TradeTrust framework, a blockchain-powered protocol spearheaded by Singapore's Infocomm Media Development Authority (IMDA), the transaction marked a significant milestone in the industry's decades-long journey towards digitalized trade.

Since the 1980s, shipping industry players have made several attempts to move towards electronic bills of lading (eBLs) in a bid to inject more efficiency, transparency, and security into international trade. In the past, initiatives have been stymied by low rates of adoption, a lack of legal and technical interoperability, and companies' slowness to change established systems. So far, the adoption of digitalized trade

documentation has remained low due to the lack of legal and technical interoperability between eBL platforms available in the market.

With shipping at the heart of its economy, Singapore has emerged at the vanguard of the digitalisation of global trade, having already taken steps to establish legal frameworks for Electronic Transferable Records and run pilot projects to test the viability of verifiable credentials and non-fungible tokens. In 2019, IMDA launched TradeTrust, a digital framework and solution to facilitate secure and efficient exchanges and effect title transfers seamlessly of digital documents including ETRs. Designed as a platform-agnostic protocol, TradeTrust's system fulfils the functions of traditional BL systems while simultaneously solving the lack of technical interoperability of existing eBL platforms.

The TradeTrust framework also enables governments and businesses to independently verify the authenticity of these ETRs. Any TradeTrust-enabled eBL system can leverage its cutting-edge Web 3.0 capabilities to address the various challenges that have complicated the industry's journey towards full digitalisation. In this paper commissioned by the Hinrich Foundation, [Siddharth Poddar](#) of content consultancy StoneBench worked with IMDA on a months-long project to dissect and explain how TradeTrust works, its reception among businesses, and how it could revolutionize cross-border commerce.



Click on image to download BRINGING TRADE INTO THE WEB 3.0

SOURCE

[Hinrich Foundation](#)



# How Singapore uses AI for faster shipping

Listen to this article 5 min

Koh Chin Yong, Chief Information Officer of the Maritime and Port Authority of Singapore (MPA), shares about the initiatives to make the country's port more efficient and convenient. He discusses how this benefits the environment and the authority's work on data sharing.

## AI-enhanced docking

MPA is trialling a new system to help ensure that ships depart from and arrive at Singapore's port on time. The authority uses AI to provide recommendations for the most efficient distribution of anchorage spaces where ships can be docked, Koh highlights.

The algorithm assesses data such as the available spaces and the purpose of the ship's travel to make these suggestions. It aims to shorten the amount of time that ships are anchored at sea or docked, boosting the port's productivity.

This also cuts the carbon footprint of these ships, as they no longer “speed up and then end up having to wait”, Koh explains. This reduces the amount of time when ships idle and produce carbon emissions unnecessarily.

This system also allows for easier data sharing between the port, ships and relevant services like refuelling teams. This data sharing helps ensure that service can be delivered as soon as a ship docks, enabling a faster turnaround time.

This is the second phase of the digitalPORT@SG programme, which looks to digitalise the ship arrival and departure process. The programme was first launched in 2019 with a one-stop portal where vessels can submit ship, health and immigration documents when entering Singapore.

The information collected by this portal is shared with MPA, the Immigration & Checkpoints Authority and the National Environment Agency.

This simplified the clearance process as previously ships had to submit 16 different forms on various government platforms. The portal can now automatically pre-fill data in clearance forms, saving shipping companies over 100,000 man-hours every year, Koh shares.

## Maritime data hub

MPA has rolled out a hub of maritime data including areas such as animal habitat and biodiversity records, mapping of the ocean floor, and information about Singapore’s coasts. The hub can provide information in the form of 2D and 3D images, Koh shares.

This data can then be used in public sector projects relating to Singapore’s waters. For example, this information can help ships accurately navigate the country’s waters, improving maritime safety, he highlights.

This GeoSpace-Sea data hub contains information regarding Singapore’s coastlines, which can help tackle future challenges like climate change. Marine science research and disaster response are also potential uses for this system, according to Dr Lam Pin Min, the former Senior Minister of State for Transport and Health.

The data is currently only accessible to government agencies, but there are plans to extend it to academia, research institutions, and industries in the future, he highlights.

## Data and future priorities

MPA regularly shares data with other government agencies such as the National Environment Agency and the Immigration and Checkpoints Authority. The organisation uses government-provided data exchange tools to share information with these agencies, Koh explains.

These tools are found in a central platform which helps government agencies to securely transfer data between one another. The platform provides a catalogue of pre-made tools, reducing the number of data “silos and the duplication of efforts.

In terms of keeping this data secure, MPA’s data sharing technology and computer systems are assessed by Singapore’s Cyber Security Agency and GovTech, Koh highlights.

The authority created a centre for maritime cybersecurity in 2019 to look out for potential cyber threats across marine information systems. It helps the authority detect threats early and respond to attacks quickly, David Foo, now MPA’s Assistant Chief Executive (Ops-Tech), [told GovInsider](#).

Looking to the future, Koh outlined an exciting development in the MPA’s tech. The authority is working towards the launch of the entirely automated Next Generation Tuas Port, when it is fully completed in 2040, he highlights.

This port will use autonomous and electric vehicles, making “transport greener with a lower carbon footprint”, he adds. It will also use cameras and laser sensors to allow port staff to remotely monitor multiple cranes at once.

As a tiny island nation, Singapore’s economy depends heavily on maritime trade. MPA is using technology to support this industry, improving the convenience of its processes while helping to mitigate climate change.

SOURCE

[GovInsider](#)



# The Transformative Impact of AI on the Freight Forwarding Industry

Listen to this article 5 min

The freight forwarding industry is undergoing a significant transformation, driven by advancements in artificial intelligence (AI) and digital technologies. These innovations are reshaping the way logistics companies operate, adding value to businesses and challenging the traditional approach of freight forwarding. In this article, we will explore how AI is revolutionising the industry, the evolving role of freight forwarders, and the importance of efficient shipment planning in this dynamic landscape.

## 1. How AI Will Change the Freight Forwarder Industry

AI has the potential to revolutionise the freight forwarding industry in numerous ways. By harnessing the power of data analytics and machine learning, AI can automate and optimize various processes, leading to increased efficiency, cost savings, and improved decision-making. AI-driven technologies enable real-time tracking and monitoring of shipments, predictive analytics for demand forecasting, intelligent route planning, and dynamic pricing. These capabilities empower freight forwarders to provide their customers with enhanced visibility, transparency, and agility.

## 2. Logistics Adding Value to Your Company

Logistics plays a crucial role in adding value to businesses in today's global marketplace. Efficient supply chain management, streamlined transportation, and timely delivery of goods are vital for maintaining a competitive edge. By leveraging AI-powered solutions, freight

forwarders can optimize logistics operations, reduce lead times, minimize disruptions, and improve customer satisfaction. Additionally, advanced analytics enable companies to gain valuable insights into their supply chain performance, identify bottlenecks, and make data-driven decisions to enhance overall efficiency and profitability.

### 3. The Emergence of Digital Freight Forwarders

While the concept of digital freight forwarding is still evolving, it is gradually transforming the industry. Digital freight forwarders leverage technology to streamline processes, offer seamless online experiences, and enhance customer service. By digitising workflows, automating documentation, and providing real-time shipment visibility, digital forwarders simplify the complexities associated with international trade. Although they are not yet a complete reality, their disruptive potential is reshaping the traditional landscape and encouraging traditional freight forwarders to embrace digital transformation.

### 4. Embracing Change: Traditional vs. Modern Freight Forwarders

Traditional freight forwarders are adapting their approach to meet the changing demands of the industry. The rise of more educated customers who are tech-savvy and value transparency has accelerated the need for digitised services. Modern freight forwarders leverage AI, data analytics, and digital platforms to provide end-to-end solutions, optimise processes, and deliver exceptional customer experiences. By embracing these changes, forwarders can stay competitive, attract new customers, and retain existing ones in an increasingly dynamic market.

### 5. Efficient Shipment Planning

Efficient shipment planning is crucial for cost-effective and timely deliveries. AI-powered tools enable freight forwarders to optimize routes, select the most suitable transportation modes, and manage capacity effectively. Advanced analytics provide insights into historical data, market trends, and customer preferences, facilitating better decision-making. By leveraging these technologies, freight forwarders can reduce transit times, lower costs, and ensure reliable delivery schedules, enhancing customer satisfaction and loyalty.

### 6. The Industry in Transition

As customers become more educated and demand greater visibility and transparency, the freight forwarding industry is undergoing a significant transformation. Companies that embrace digitisation, AI, and data-driven decision-making are at the forefront of this change. By adopting innovative technologies and reimagining traditional processes, freight

forwarders are paving the way for a future where digitised B2B freight services become the norm, enabling seamless and efficient global trade.

The freight forwarding industry is on the cusp of a digital revolution, driven by AI and other emerging technologies. The adoption of AI-powered solutions promises to revolutionise operations, enhance customer experiences, and bring greater efficiency to global supply chains.

In this captivating video, we delve deep into the heart of the matter, exploring the thoughts and insights shared by La Chang, CEO of TGL, and the visionary Ram Radhakrishnan, CEO of Silq.



In a world where digital transformation is no longer a luxury but a necessity, the freight forwarding industry stands on the precipice of a ground breaking revolution. This captivating video brings together the insightful perspectives of La Chang, TGL CEO, and Ram Radhakrishnan, the CEO of Silq, as they openly discuss the reality and expectations surrounding digital freight forwarding companies.

Prepare to be inspired as you witness the industry's journey towards true digital transformation. Don't miss this opportunity to gain invaluable insights and discover what the future holds for the world of freight forwarding. Watch the video now and unlock the possibilities that lie within the realm of digital freight forwarding.

[SOURCE](#)[TGL](#)

# New App to Improve Efficiency for Shipping and Logistics

Amid recurring disruptions to global supply chains from geopolitical hot spots around the world, Singapore and its regional counterparts have been actively trying to find innovative ways to maintain an uninterrupted movement of goods.

**Among the initiatives is an app that may boost Singapore's shipping and logistics sectors – by improving efficiency and helping to cut costs, while also eliminating uncertainty.**

Still being developed, it will not only help local shippers and logistics providers plan cargo routes across different modes of transportation, but also aid them in contingency planning should unforeseen events crop up.

**The app will bring together critical information and decision-making tools onto a centralised platform.** This will give users access to real-time data on flight and vessel schedules, help with bookings, as well as live tracking of the cargo's status across each stage of its journey.

A key feature is the app's ability to provide early notifications to users about potential delays, thereby giving them sufficient leeway to respond to these unforeseen circumstances.

Ultimately, this is expected to significantly reduce costs and uncertainties associated with having to transport goods by land, sea or air. At present, shippers and logistics providers face a longstanding challenge of such information residing across separate channels. Smaller companies find this tough as they are more likely to rely on manual processes to gather such information.

**Among the entities involved in this project are leading global logistics players such as DB Schenker and Cargo Community Network, as well as Singapore's PSA, Sats, Singapore Airlines Cargo and the Singapore Aircargo Agents Association.**

SOURCE

[The Straits Times](#)

# CHEERING THE SINGAPORE PARALYMPIC TEAM

2024 Summer Paralympics, Paris  
28 Aug – 8 Sep 2024

11 Singaporeans are representing us on the world stage

**WE ARE PROUD OF YOU!**



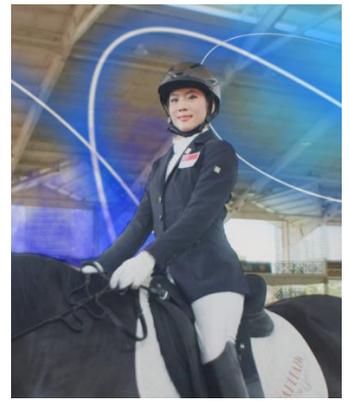
**ALOYSIUS GAN KAI HONG**  
Boccia



**TOH SZE NING**  
Boccia



**JERALYN TAN YEE TING**  
Boccia



**GEMMA ROSE FOO**  
Equestrian



**HILARY SU HUI'EN**  
Equestrian



**NUR SYAHIDAH**  
Para Archery



**MUHAMMAD DIROY BIN  
NOORDIN**  
Para Athletics



**SOPHIE SOH**  
Para Swimming



**TOH WEI SOONG**  
Para Swimming



**YIP PIN XIU**  
Para Swimming



**DANIEL CHAN HAN SIONG**  
Shooting Para Sport

## EDUCATION

### EVENTS ON CILTS WEBSITE

To keep up with the latest developments and sharing in the Supply Chain, Logistics and Transport industry, check out the [EVENTS](#) section of our website, which includes the following insightful webinars:

- [\*\*CILT AUSTRALIA: THE FUTURE OF AIR TRAVEL – PATHWAY TO DECARBONISATION\*\*](#)

**15 AUG 2024**

With air transport recognised as one of the most challenging sectors to decarbonise, ICAO has an aspirational goal of net zero carbon emissions by 2050. Sustainable aviation fuels, streamlined flight operations and new aircraft technologies are the identified means to get there.

**While there is a charge for attending the physical event in Australia, the event can be attended remotely without charge.**

- [\*\*THE SMART FACTORY @ MONTREAL - BELIEVERS MADE HERE\*\*](#)

**9 AUG 2024**

**Takeaways:**

- Experience endless possibilities through demonstrations of the latest technologies in distribution and explore the art of the possible
- Discuss the variables impacting distribution operations today and how technology can help mitigate the risks
- Learn how to be a catalyst for automation and AI adoption by informing organizations about the advancements in smart operations
- Help drive performance improvement in cost, quality, and safety across the warehouse operations

- [\*\*SMALLER STATIONS, BIG IMPACT - OPTIMISING AIRLINE OPERATIONS\*\*](#)

**27 AUG 2024**

- Learn about new strategies for stand and staff management and immediate conflict mitigation.
- See how to streamline staff allocations and responsibilities without the need for constant back-office support
- Experience how to enhance operational efficiency through advanced, predictive insights about potential disruptions.
- Explore potential shifts in job roles and responsibilities to better manage operational demands.

- [\*\*MAXIMISING ENGINEERING POTENTIAL WITH COLLABORATIVE DESIGN\*\*](#)

**28 AUG 2024**

Product development has become more and more complex in recent years. Shorter deadlines, increased requirements and regulations, and teams scattered across offices and time zones are just some of the factors that can make it difficult for engineers and designers to get their projects out into the world.

**Learn all about:**

- Enhancing collective intelligence with better **cross-discipline collaboration**
- Optimizing product development processes
- Improving supply chain collaboration efficiency
- **Driving innovation** with a cloud-based platform
- **Breaking down silos** and cultural barriers to enhance business

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## PUBLICATIONS

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The US presidential election in November will be a pivotal event for the global economy and geopolitics. We expect an extremely close contest between Democrat and Republican candidates. The presumptive Republican nominee, Donald Trump, would initiate sweeping policy changes in areas ranging from trade policy to national security if he returns to office. The global ramifications of these shifts mean that the implications of a Trump presidency are worth exploring fully.

We have developed an index to assess individual country exposure to a Trump presidency.



Aside from walking, cycling remains the most environmentally friendly way of moving around cities. Electrification has further expanded the distances cyclists can travel.

Shared micromobility has made significant progress in terms of sustainability as operators have addressed the impacts of their fleets and operations on the environment. Leasing models are particularly attractive from a lifecycle environmental impact perspective.



This guide provides you with a comprehensive understanding of TMS software and its functionalities, including the ideal use cases and the benefits it offers.



Flexibility is a relatively new concept in the world of warehouse automation, and as such, it can be tricky to define and quantify. The truth is, measuring flexibility is more subjective when you compare it to other performance indicators like speed, throughput, storage density or picking accuracy.



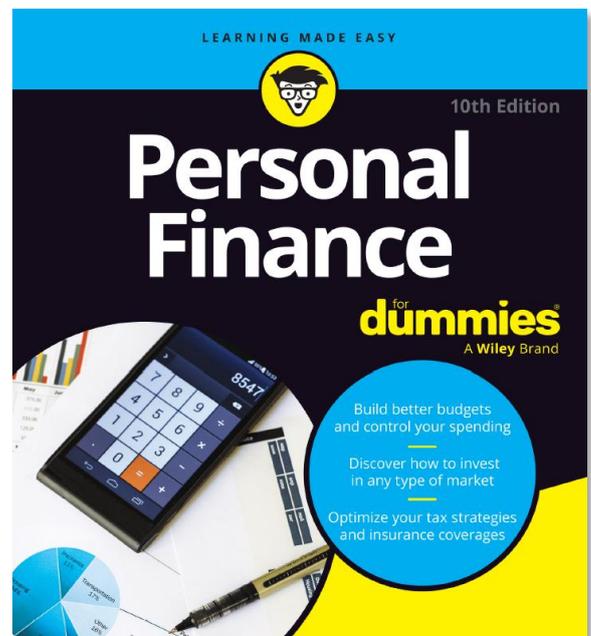
In this eBook, we discuss how supply chains can truly transform from a digital supply chain to an autonomous supply chain. We also discuss the role played by AI, Optimization and Virtual Twin Experiences in achieving an autonomous supply chain.



A well-structured business plan is more than just a document – it's the compass that guides your company to success.

Whether you're a budding entrepreneur or a seasoned business owner seeking to redefine your strategies, mastering the art of how to write a business plan is essential.

This comprehensive guide will lead you through the process of how to create a business plan, step by step, from laying the foundation to adding the final touches.



A detailed and comprehensive 476-page volume on how to manage and grow your personal finances.

## Who We Are

The Chartered Institute of Logistics and Transport Singapore is part of the leading, global professional body for those engaged in supply chain, logistics and transport – covering all sectors of the industry, namely air, land and sea, for both passenger and freight transportation.

Our primary objectives are to support our members in continuous professional development to future-proof their careers, as well as to work in close collaboration with the public and private sectors, Government agencies and the academia to develop opportunities and synergy for industry transformation and growth, underpinned by strategic thrusts in digitalisation and sustainability.

## Contact Us

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