香港科技大學
THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

Hong Kong's Potential Green Corridors

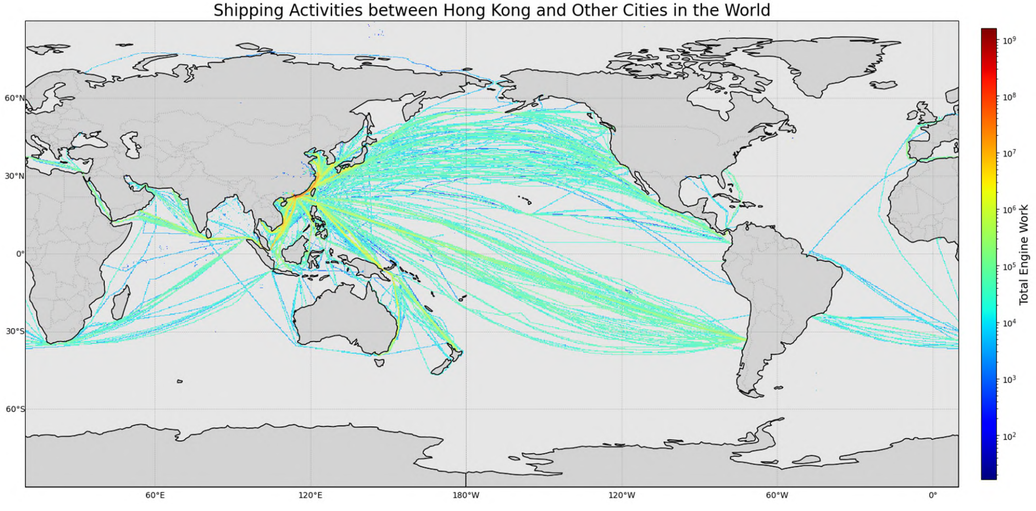
Guangdong-Hong Kong-Macao Greater Bay Area Clean Energy Supply Chain Conference

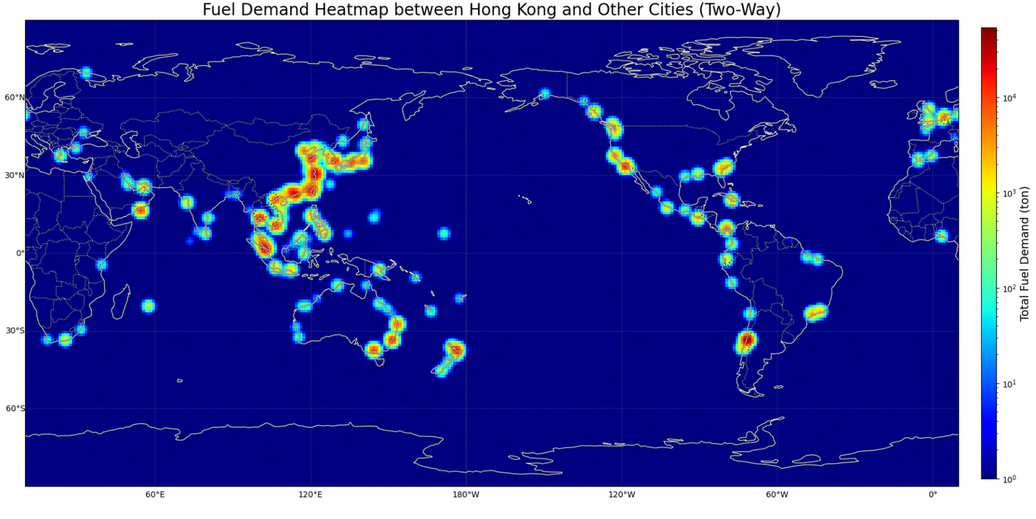
April 23, 2025

Hong Kong's vision to become a Green Maritime Fuel Bunkering Hub

- ***<Maritime and Port Development Strategy>*:**
  - Establishing HKP as **a zero-carbon green shipping hub**.
- ***<Action Plan on Green Maritime Fuel Bunkering>***
  - **Identify** at least one suitable port for developing a **new green shipping corridor** with Hong Kong **in 2026**, as well as **consider joining existing green shipping corridors when appropriate**

Routes to/from Hong Kong (per 2021)

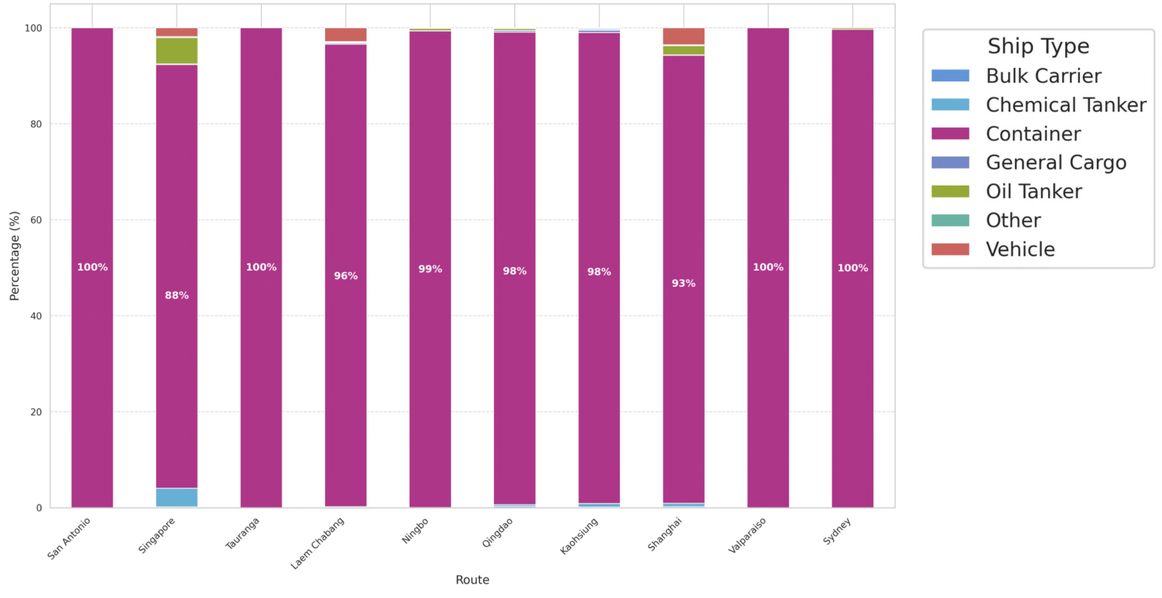


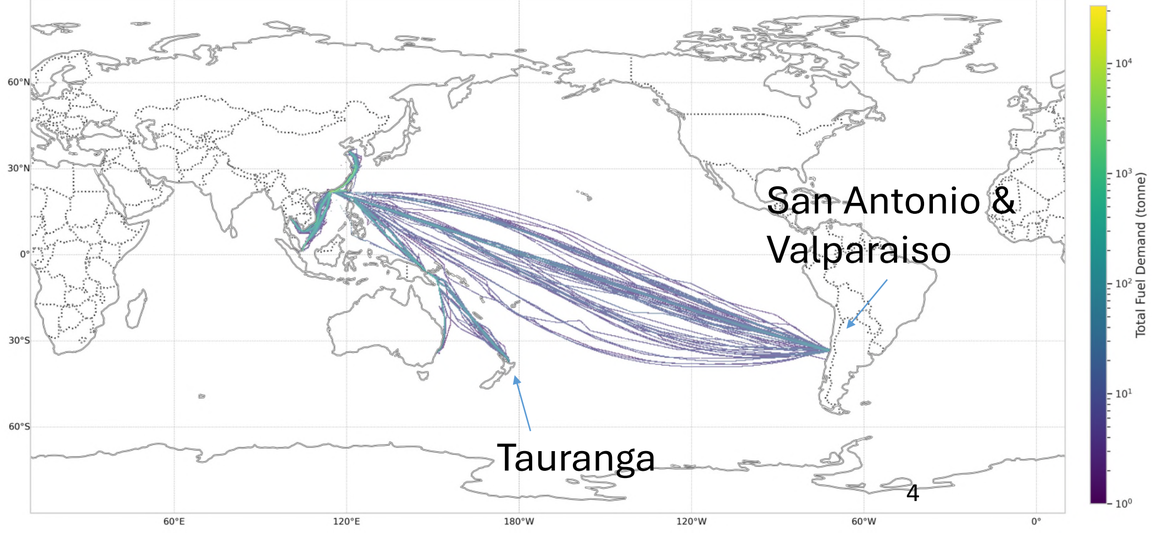


Routes Name (Two-Way)	Country	Total Voyage Counts	Total Ship Counts	Average Voyage Days	Estimated Fuel Demand (ton)
San Antonio	Chile	52	29	23.3	243,725
Singapore	Singapore	1091	489	4.9	157,883
Tauranga	New Zealand	58	33	13.0	102,845
Laem Chabang	Thailand	907	192	4.5	100,968
Ningbo	China	484	267	3.9	98,663
Qingdao	China	443	202	4.3	98,511
Kaohsiung	Taiwan, China	2075	508	1.6	97,693
Shanghai	China	863	308	3.7	97,247
Valparaiso	Chile	20	13	22.9	93,506
Sydney	Australia	63	19	13.0	87,943

Fuel demand breakdown for top 10 maritime routes:

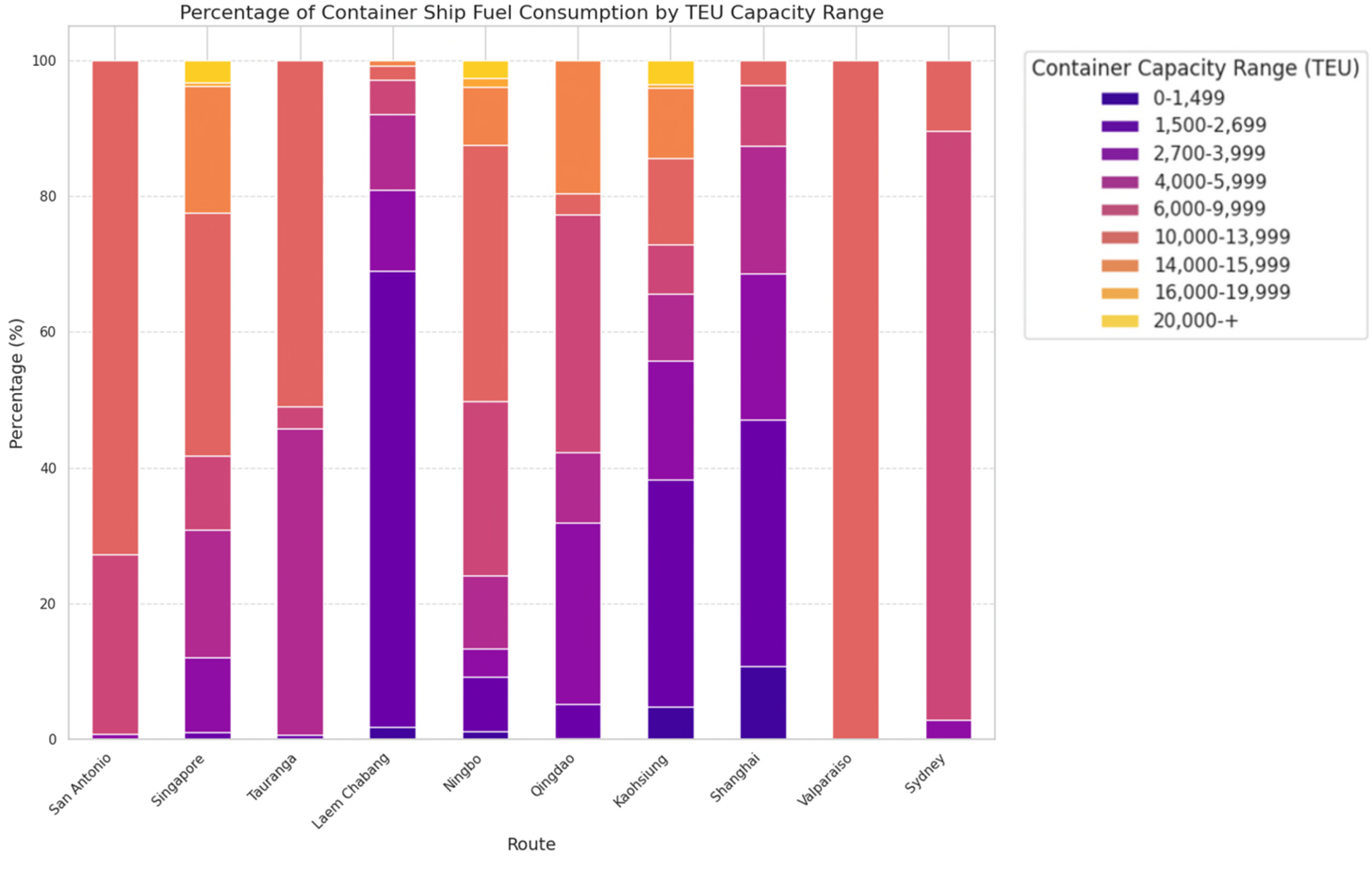
- **Container ships** dominate top 10 routes
- Other vessels (chemical/oil tankers, vehicles) mainly serve **Asian regional routes (e.g., Singapore)**
- Shanghai and Singapore: key bunkering ports with green ambitions





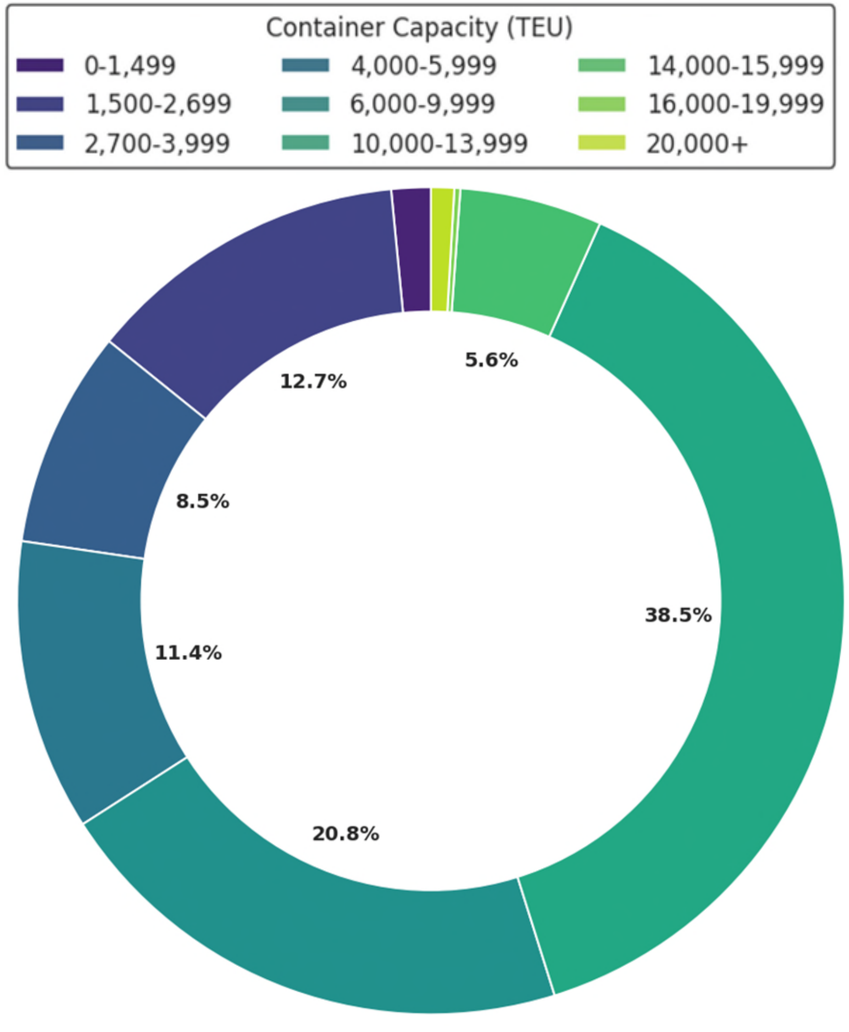
Container ships breakdown:

- **Ultra-large (10,000+ TEU)**: Highest fuel consumption, deployed on long-haul transoceanic routes
- **Large (6,000-9,999 TEU)**: Most route flexibility, serving diverse destinations
- **Small/Medium-small (<3,000 TEU)**: Regional Asian focus (Kaohsiung, Laem Chabang)
- **Shanghai routes** feature the broadest range of container ship classes



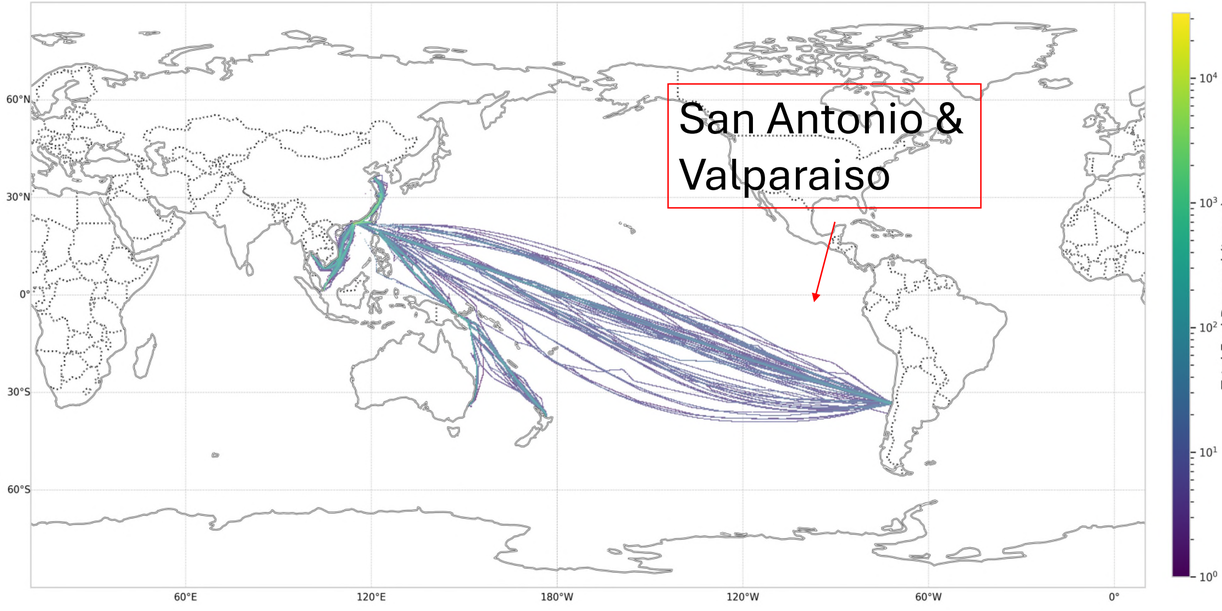
Container ships breakdown:

- **Highest fuel consumption** is observed in **10,000-13,999 TEU** ships
- **Large container ships (6,000-9,999 TEU)** contribute the second-highest share at **20.75%**, followed by **1,500-2,699 TEU** ships (**12.7%**)
- **Small ships (0-1,499 TEU)** have minimal impact, responsible for just **1.6%** of fuel use



Policy recommendations

- **Start with Hong Kong-San Antonio (HK-SA) route**
  - ✓ It presents the **highest** fuel demand coupled with maximum emission reduction potential;
  - ✓ The HK-SA corridor, as an international shipping lane, **aligns with the scope of IMO's Net-Zero Framework.**
- **Adopt tiered implementation approach**
  - ✓ Begin with ultra-large container ships on the HK-SA route; then progressively expand to neighbouring ports (e.g. Valparaiso in Chile, Callao/ Chancay in Peru) and smaller container ships;
  - ✓ Alternatively, invite early movers with methanol-fueled container ships calling HK for Expression of Interest to participate GSC between HK & Latin America, incl. HK-SA route; then encourage and expand to other liners.
- **Accelerate GSC by inviting support from Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping (MMMCZCS).**



In April 2022, the Chilean Ministries of Energy and MMMCZCS announced a formal agreement to establish a network of green corridors allowing for green maritime transportation of goods in and out of Chile. The aim of the project was to establish green corridors between ports where vessels can access, and bunker low-carbon fuels.