



# APEC TPTWG-43

## **Key Challenges of Ports from Shipping Alliance and Increasingly Large Vessels**

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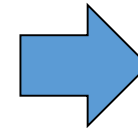
**2. Key Challenges of Ports**

**3. Actions to the Challenges**

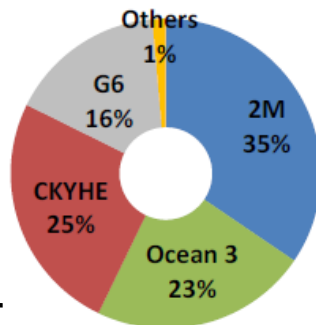
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# 1. Significant Shipping Trend I

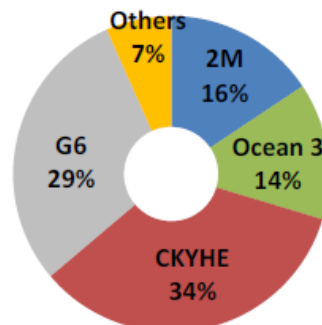
## Shipping Alliance Reshuffle



FE-Europe Capacity Share by Alliance



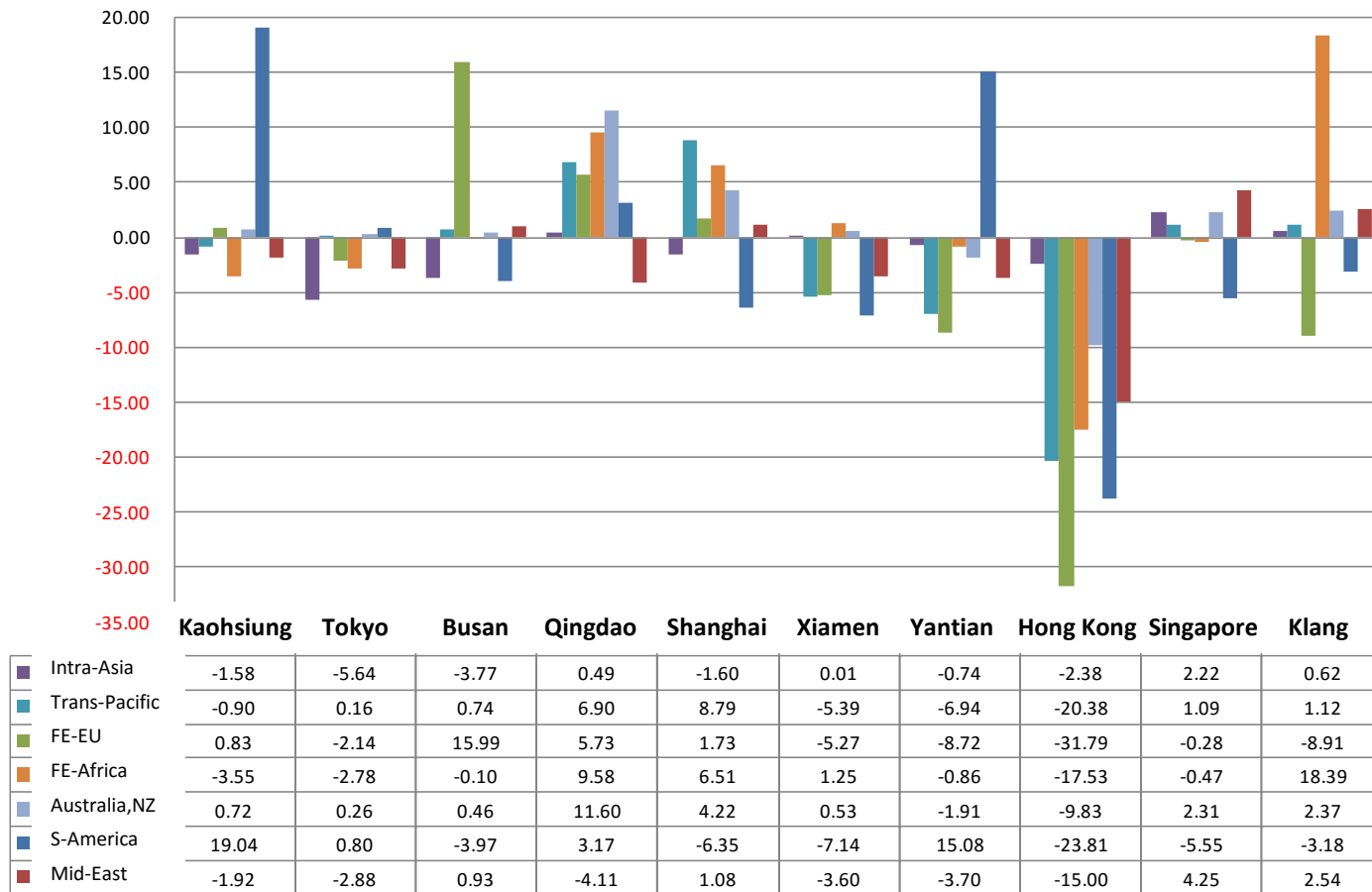
FE-N America Capacity Share by Alliance



Note: Hanjin just filed for bankruptcy

# 1. Significant Shipping Trend I

## Shipping Routes Dynamics

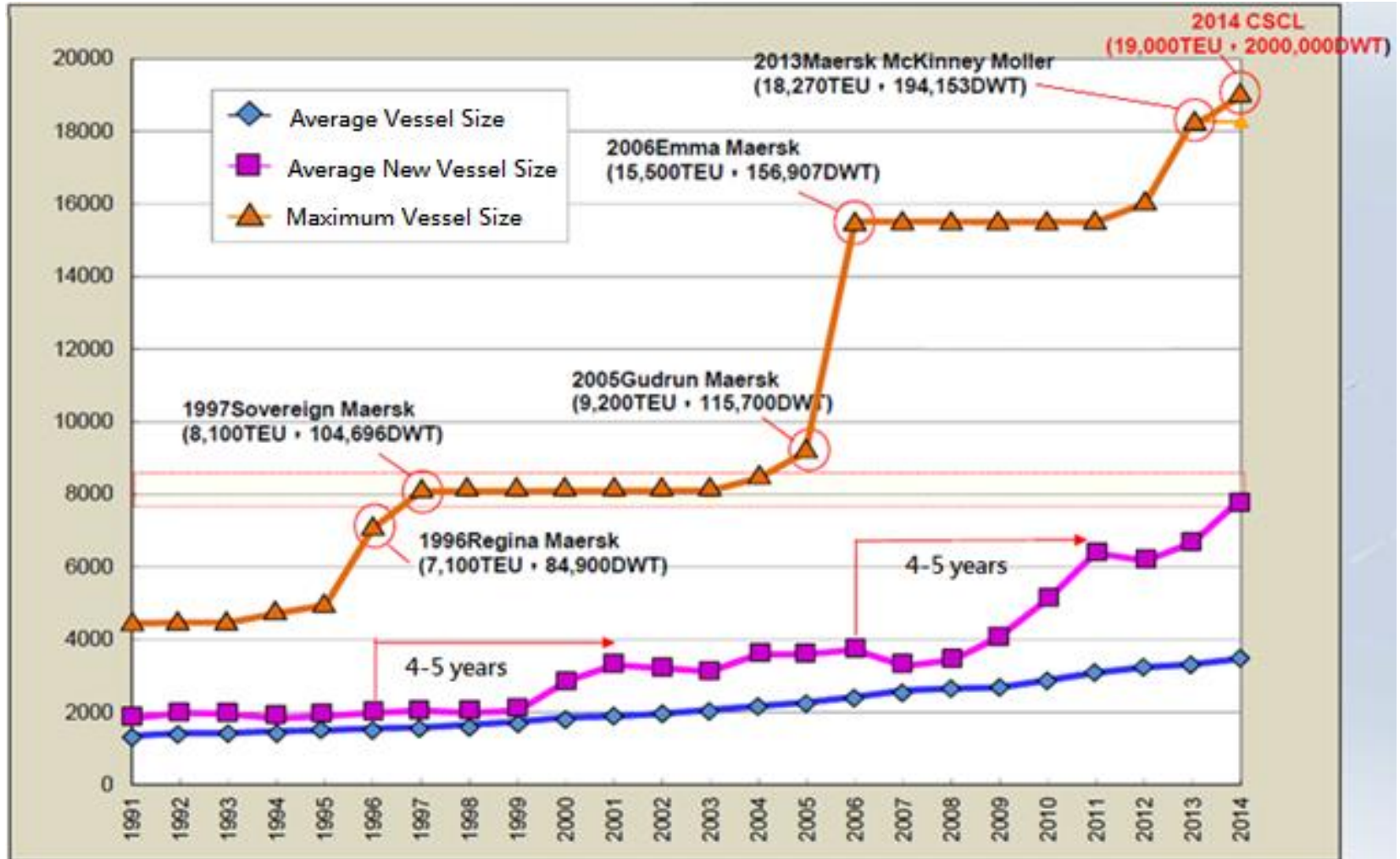


The comparison of number of shipping routes calling ports in APEC area between 2011 and 2015 (%)



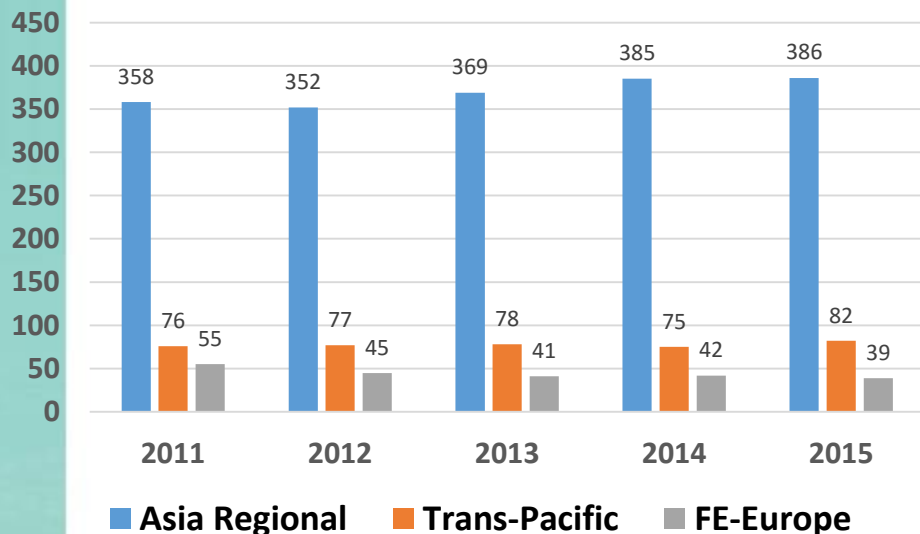
# 1. Significant Shipping Trend II

## Mega Container Vessels

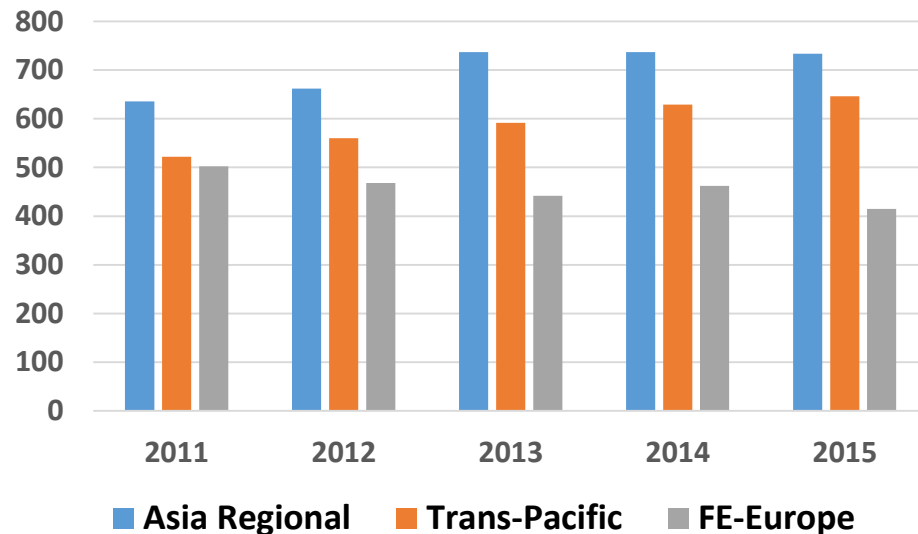


# 1. Significant Shipping Trend II

## Mega Container Vessels



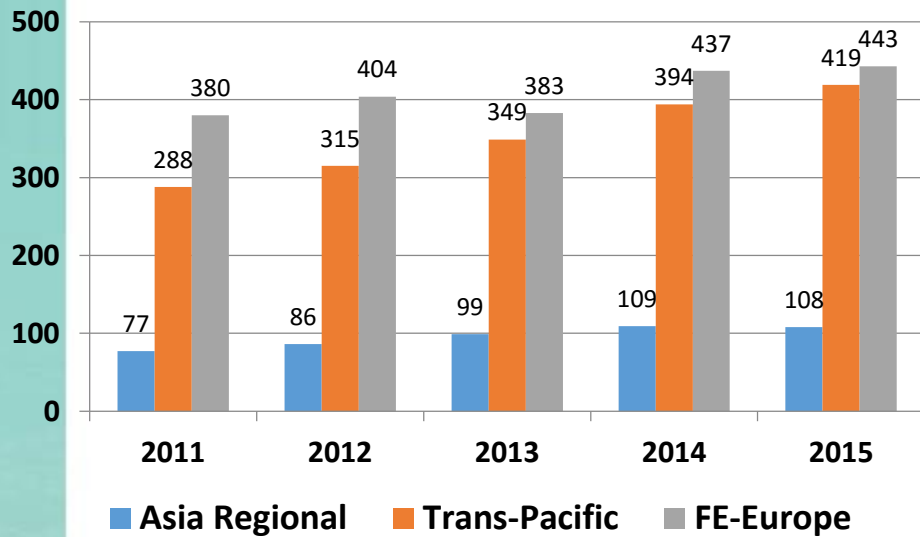
Number of Shipping Routes



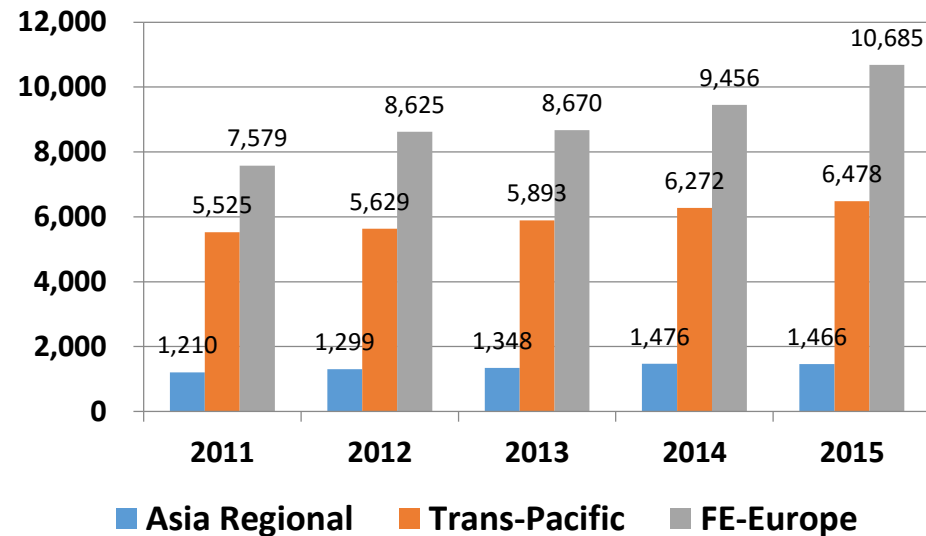
Number of Operating Vessel

# 1. Significant Shipping Trend II

## Mega Container Vessels



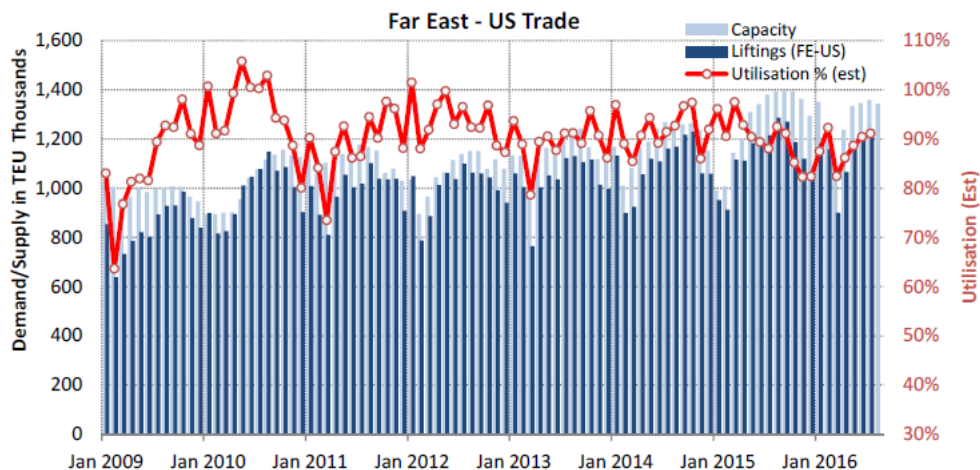
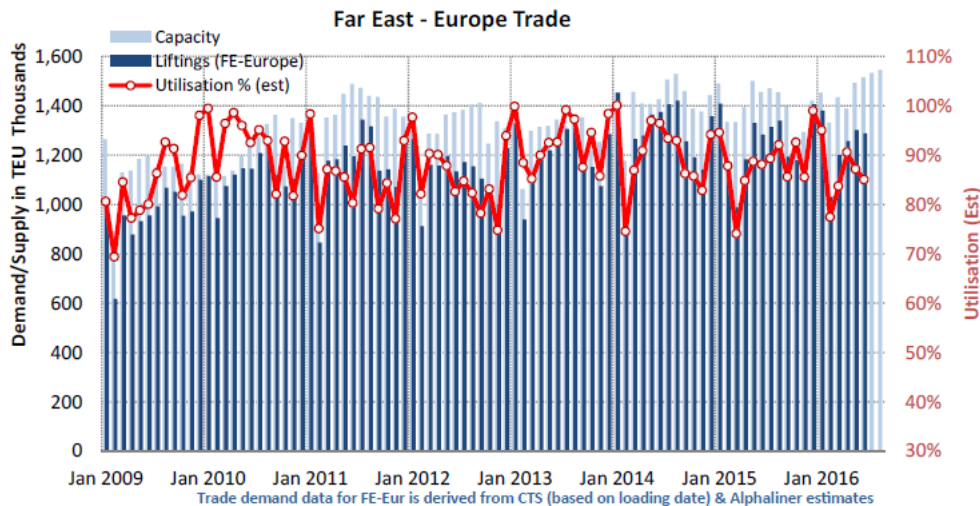
**Shipping Routes Capacity**  
(in 10,000 TEU)



**Average Vessel Size (TEU)**

# 1. Significant Shipping Trend III

## Market Demand and Supply



- FE- Europe trade's vessel utilization fell to below 80% then back to around 85%.
- The situation of FE-US trade is better than Europe trade. The utilization maintains above 80% and reaches 90% in Q2.
- Liners and shipping alliances keep adjust the capacity supply to stimulate the utilization.

Source: Alphaliner



# 2. Key Challenges of Ports

## Rising Competition from Nearby Ports



Nearby Northeast Asia ports keep upgrading the port infrastructure and offer some port tariff incentive programs to attract liners. Also, the ports in Southeast Asia built deep water container terminals to attract direct calls of the inter-continental shipping routes. The tough competitions impacted our port strategy.

## Requirement of Infrastructure Upgrade



The size of 18,000 TEU container vessels or above requires at least -17m draught of berth. Additionally, the gantry cranes need to upgrade to fulfill the new vessel size. Also, liners ask for high efficiency and time-saving loading/unloading operations.

## Weak Demand of Import and Export



The global economic growth has decreased again and is expected to recover at a slower pace. The weaker economic environment hinders inter-continental and regional trade volume. Therefore, it has a negative impact on the performance of shipping industry and ports in our ports.

# 2. Key Challenges of Ports

Take Port of Kaohsiung for example, we are facing:

## ➤ Shipping routes removal

- Before 2011 there are total 10 FE-Europe route of G6 alliance(New World Alliance+Grand Alliance). However, it reduced to 6 routes in 2015 and only one route calls at Kaohsiung.

## ➤ Diversification of port calls

- Except major container ports, liners choose to calls at their country home port and use their home port as transshipment hub.

# 3. Actions to the Challenges

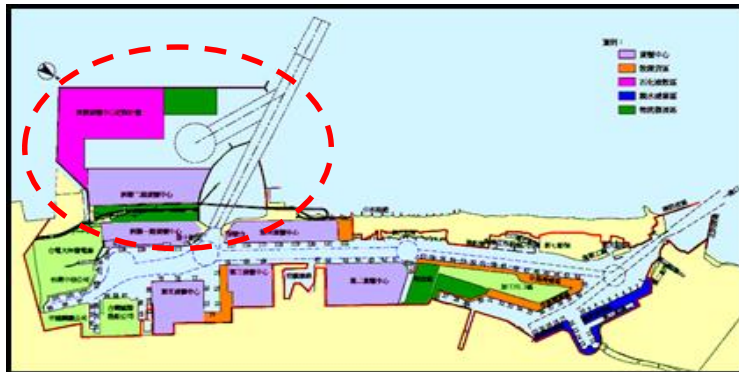
Continuingly improve port infrastructure and provide a better port service, such as:

- Dredge navigation channel and berth,
- Upgrade equipment and facilities
- Improve access roads of the ports



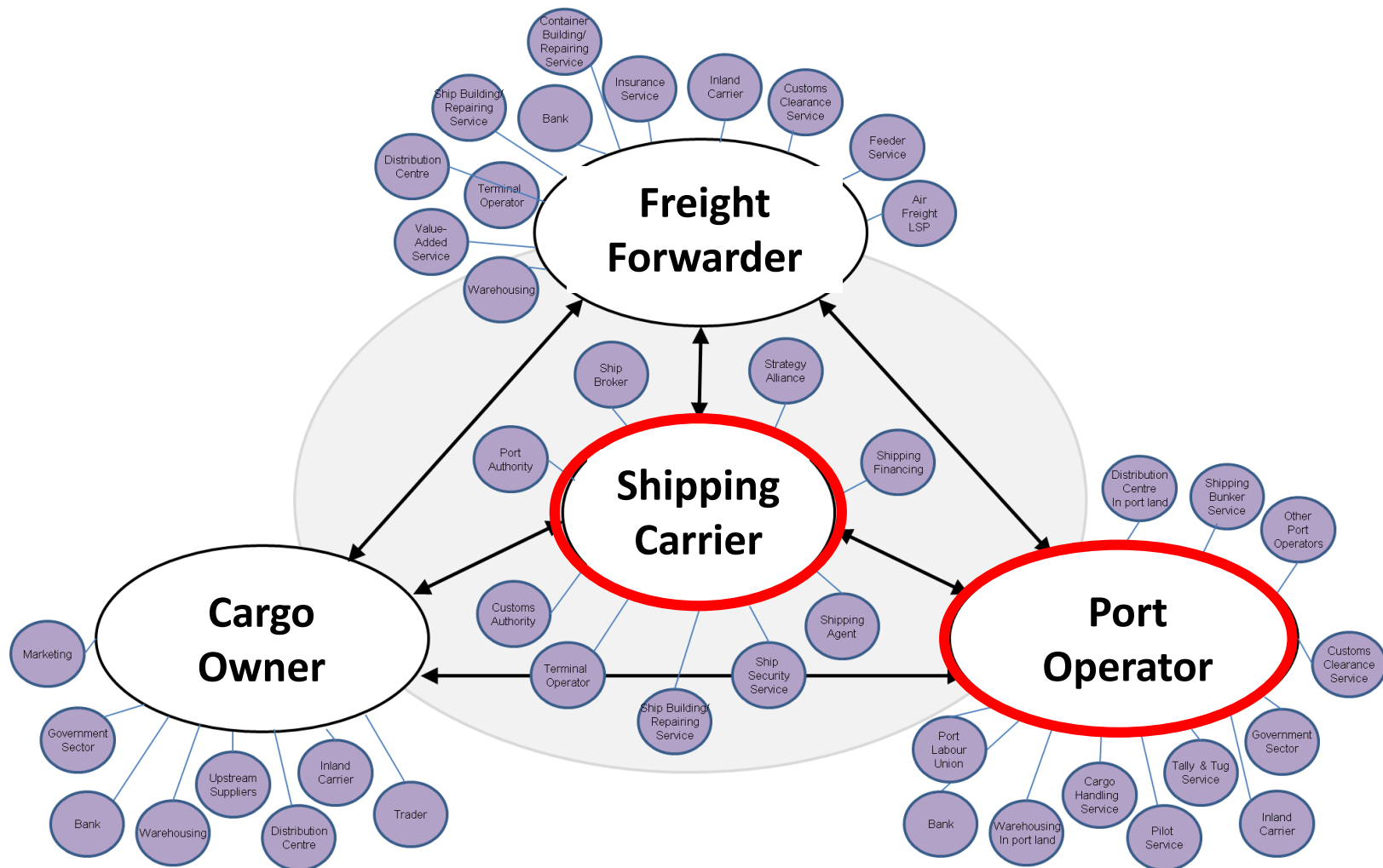
# 3. Actions to the Challenges

Build up new deep water container to fulfill future vessel demand, which is **InterContinental Phase II** (Port of Kaohsiung).



- Budget: USD 682 million
- Area: 484 ha.
- Shoreline Length: 7,040m
- Total 19 berths
- Accommodate up to 22,000 TEU container vessel

# Thinking beyond a dyadic perspective



Source: Lin (2014)



# 4. Conclusions

➤ Market conflict →

**Liners Interests vs. Industry Interests**

➤ Choose the right vessel size combination and maximize the facilities utilization.

➤ Reset port mindset and find the best position – to seek more shipping routes.



**The END**  
**Thanks for your Attention !!**