



ROLE OF PORT AUTHORITY IN DEVELOPING A VIBRANT MARITIME HUB

16th ASEAN PORT & SHIPPING, JOHOR BAHRU, MALAYSIA 2018

MUHAMMAD RAZIF AHMAD, GENERAL MANAGER, JOHOR PORT AUTHORITY, 5 July 2018

THE FUNCTIONAL ROLES OF PORTS



Still as important today as in the past as ships seek a place of refuge, protection from the elements. As well as getting fresh supplies; fuel & water apart from the functional operation of discharging and loading goods.

SAFE HAVENS

TRADE GATEWAYS

Facilitate the import/export activities of a country, thus have a direct role in the economy of the country.



Modern role of ports especially as transshipment hubs for the movement of containers. Thus, have a direct role in global economic activities.

CARGO HUBS



PART OF SUPPLY CHAIN

Modern role of ports seen as part of the total global/national supply chain. Thus, port efficiency affects the productivity & efficiency of the total supply chain.

PORTS



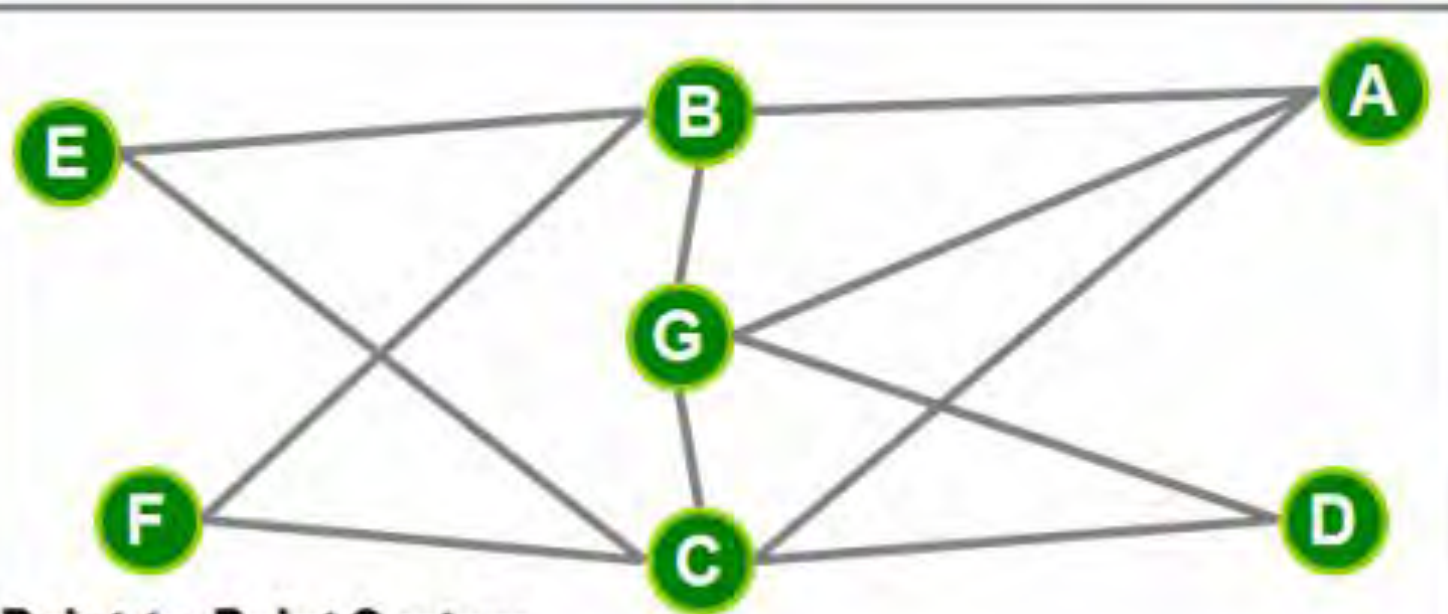
PORT OF ROTTERDAM
AUTHORITY

HUB & SPOKE SYSTEM

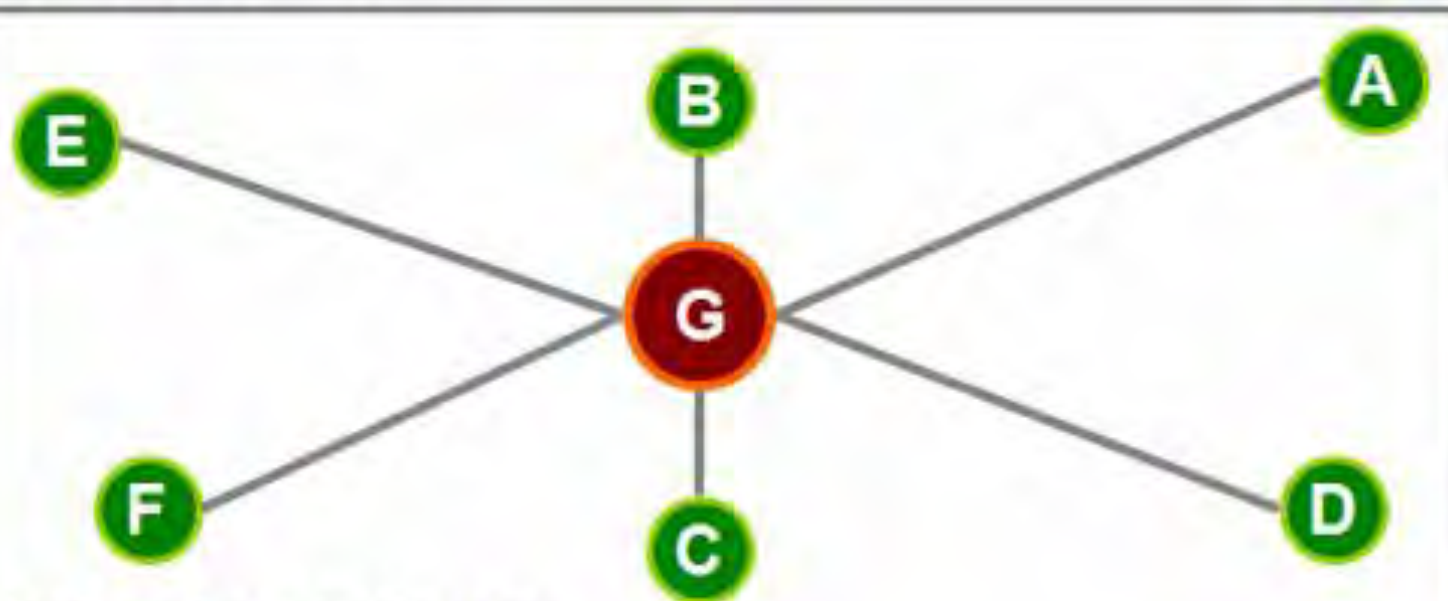
Fundamental of a maritime hub system

- Post deregulation of the US airline industry, Deregulation Act 1978
- Widely used logistics strategy
- Adopted by Main Line shipping operators
- Cost effective
- Greater efficiency

Impacts the way ports are set up: main, hub



Point-to-Point System



Hub-and-spoke System

WHY REGIONAL MARITIME HUB?

“HUB & SPOKE” SYSTEM ADOPTED BY SHIPPING LINE – everyone wants to be the hub

MAIN LINERS MAKING FEWER PORT CALLS

CONSOLIDATION OF CARGO TO FILL UP MEGA SHIPS

BETTER ECONOMY OF SCALE

SAVES OVERALL TRANSPORT COST



FACTORS DETERMINING A MARITIME HUB

LOCATION

Distance from
main port

PHYSICAL TRAITS

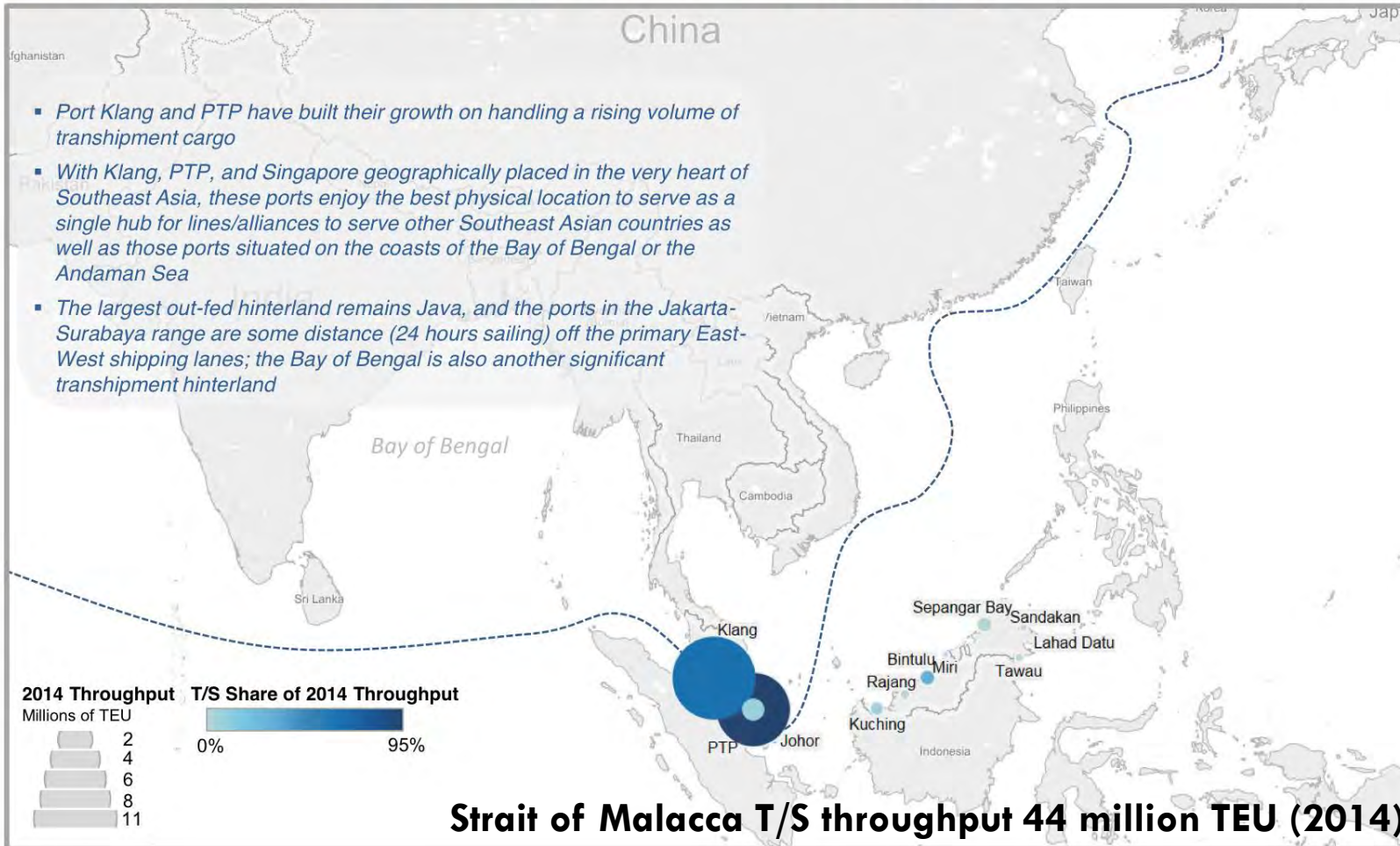
Port capacity
& service level

SOCIO ECONOMIC TRAITS OF AREA

Support
services

Peninsular Malaysia’s enviable location—adjacent to the main shipping lanes connecting the South China Sea to the Indian Ocean and hence Europe via the Suez Canal—has allowed Port Klang and PTP to become T/S hubs serving primarily the exchange of containers between the East Asian and mainline Asia-Europe trades

Geographic Position of Malaysia’s Ports vis-à-vis the World’s Main East-West Trades



- Port Klang and PTP have built their growth on handling a rising volume of transshipment cargo
- With Klang, PTP, and Singapore geographically placed in the very heart of Southeast Asia, these ports enjoy the best physical location to serve as a single hub for lines/alliances to serve other Southeast Asian countries as well as those ports situated on the coasts of the Bay of Bengal or the Andaman Sea
- The largest out-fed hinterland remains Java, and the ports in the Jakarta-Surabaya range are some distance (24 hours sailing) off the primary East-West shipping lanes; the Bay of Bengal is also another significant transshipment hinterland



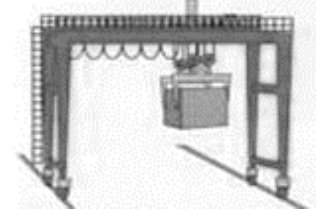
PTP TERMINAL FACILITIES



58

8 EEE compliant QCs

174

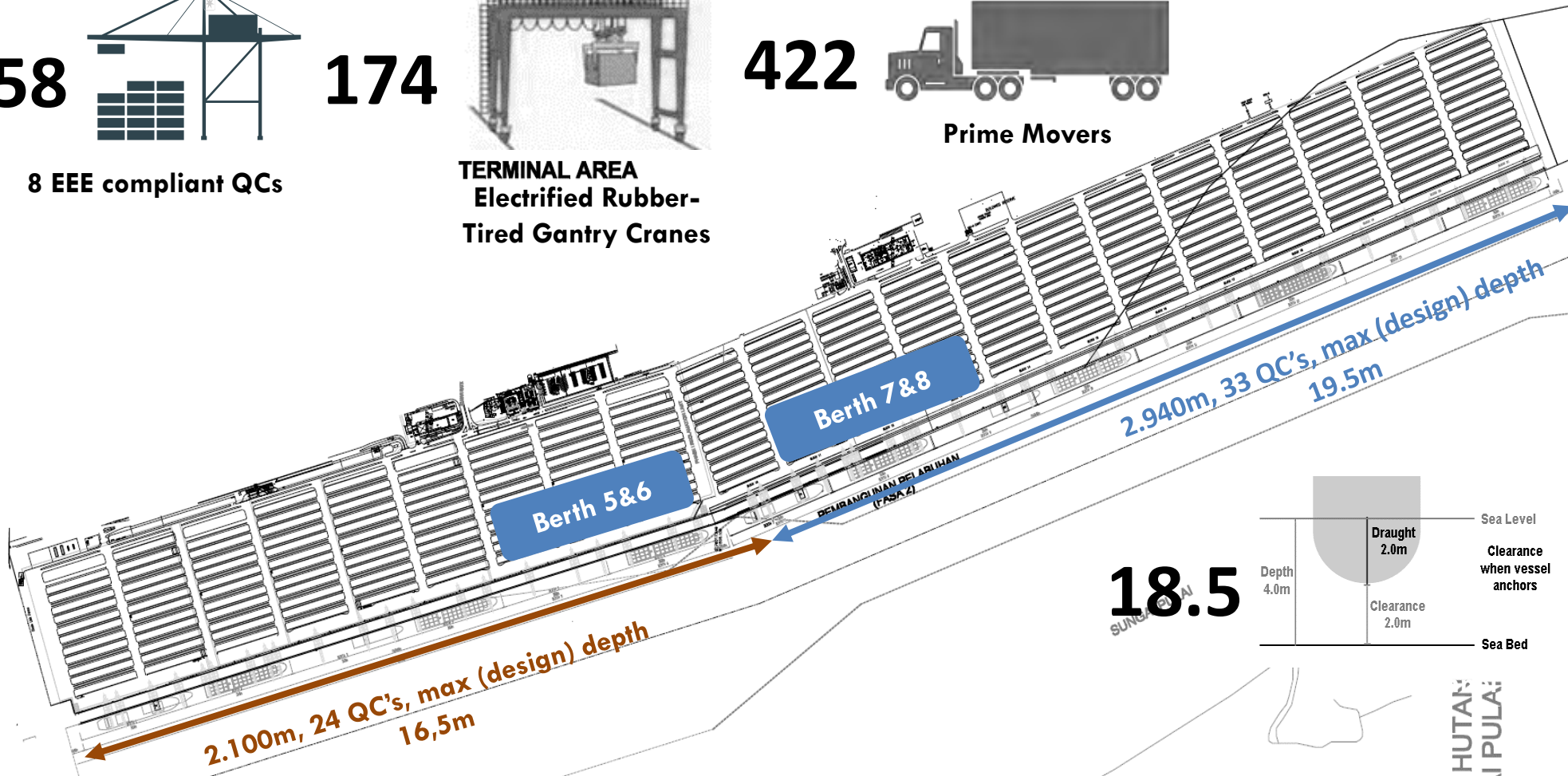


TERMINAL AREA
Electrified Rubber-
Tired Gantry Cranes

422



Prime Movers



- 12.5 million TEUs capacity
- 14 Berths — 5.04km linear quay
- Container yard with 239,400 TEUs capacity
- 5,080 Reefer Points
- 12 lanes gate complex
- 45 Pilots & 8 Tug Boats

MARITIME SUPPORT ACTIVITIES

Port & Port Services



Ship Repair



Legal Services



Shipping & Shipping Services



Finance & Banking



Education & Training



Maritime Tourism



Bunkering & Freshwater



FACTORS THAT DETERMINE SHIP CALLS AT HUB PORTS

Lalith Edirisinghe & T. Laluthasiri Gunaruwan, University of Colombo, Sri Lanka, "Sri Lanka's Maritime Hub Vision: An Analysis of Potentially Supportive Factors"

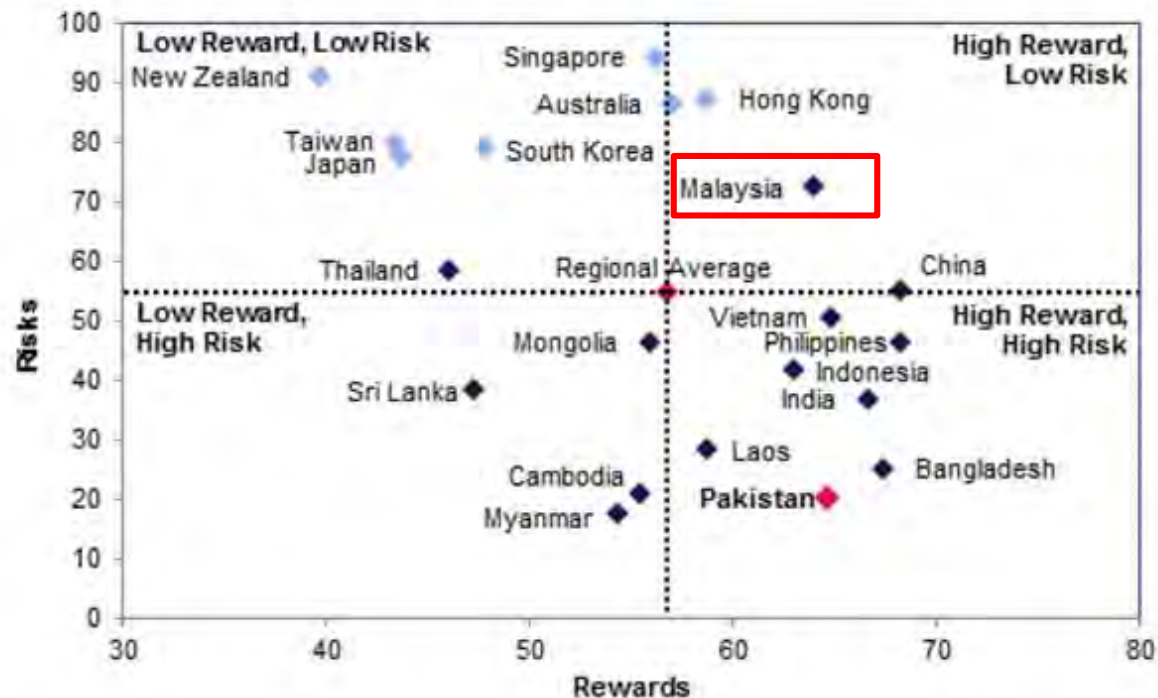
No	Factor	Nature
1	*Transshipment volume potential of the Port	Transshipment network
2	Availability of on-arrival berth (window)	Port efficiency/capacity
3	Domestic volume potential of the port	Domestic trade
4	Operational productivity (Gantry crane moves per hour)	Port efficiency/capacity
5	Feeder network availability to cover all destinations/origins	Transshipment network
6	Deviation time from main sea route	Geographic location
7	Time taken to berth/unberth ships	Port efficiency/capacity
8	Frequency of feeders	Transshipment network
9	Port handling/stevedoring costs	Port charges/costs
10	Port navigational costs	Port charges/costs

* 82% respondents put this as priority 1

Differing Geographic, Economic and Political Situations: Malaysia's Strong Infrastructure Attributes

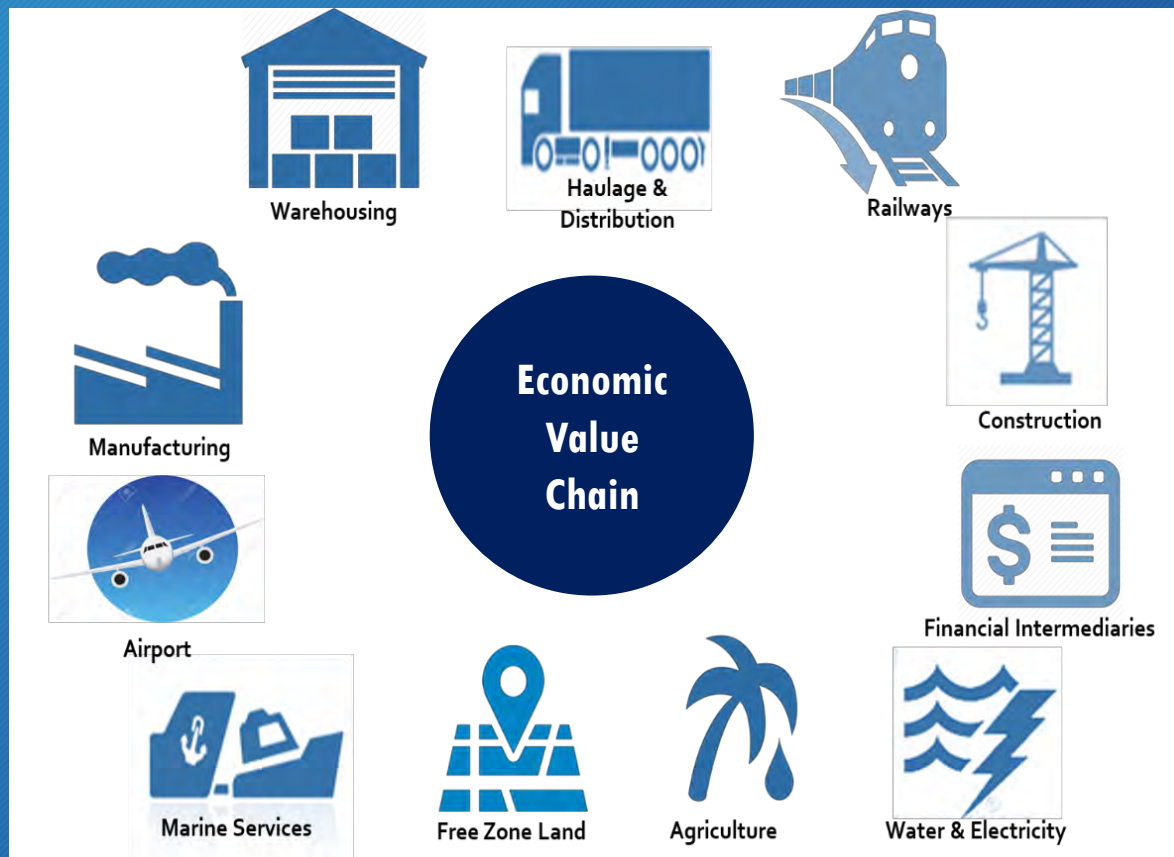
High-Risk, High Rewards

Asia Pacific - Infrastructure Risk/Reward Index



Light blue = Developed markets. Scores out of 100, higher score = lower risk. Source: BMI Infrastructure Risk/Reward Index

An Ecosystem For Regional Distribution Hub & E-Commerce



Regional Distribution Centers (RDC)

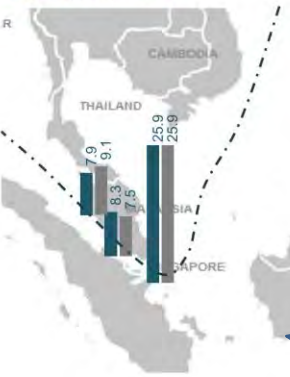
1. **BMW Regional Parts Center and Senai, serving 22 countries across APAC region**
2. **Volkswagen Regional Parts Center at PTP, serving 20 markets across ASEAN, Australia and NZ for VW, Skoda, Seat, Audi & Porsche**

Myanmar port development- "From river to deep sea"

More than 90% of SEA transshipment is handled along Straits of Malacca. The market has stagnated in the last 3 years.

- 1. To compete as a transshipment hub
- 2. To cater for larger vessels
- 3. To boost the economy

Regional transshipment hub



Regional transshipment volumes, 2008-2016 (MTEU)



58 174



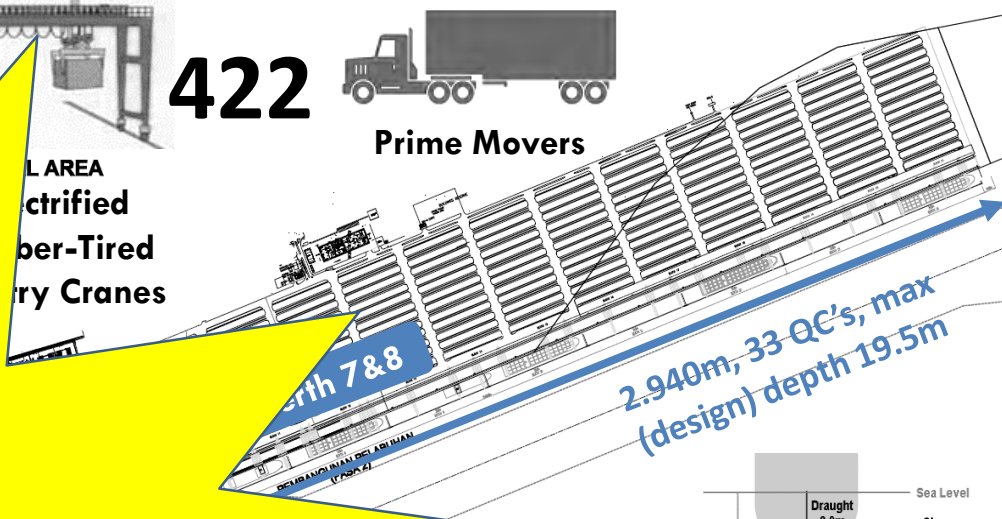
EEE compliant QC's

422



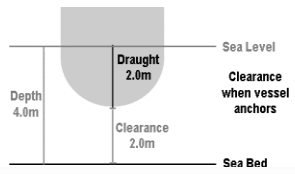
Prime Movers

AREA
rtified
ber-Tired
ry Cranes



Depth 7&8

2.940m, 33 QC's, max (design) depth 19.5m



18.5

Malaysia has a strong case to be a maritime and/or distribution hub



Finance & Banking



Education &

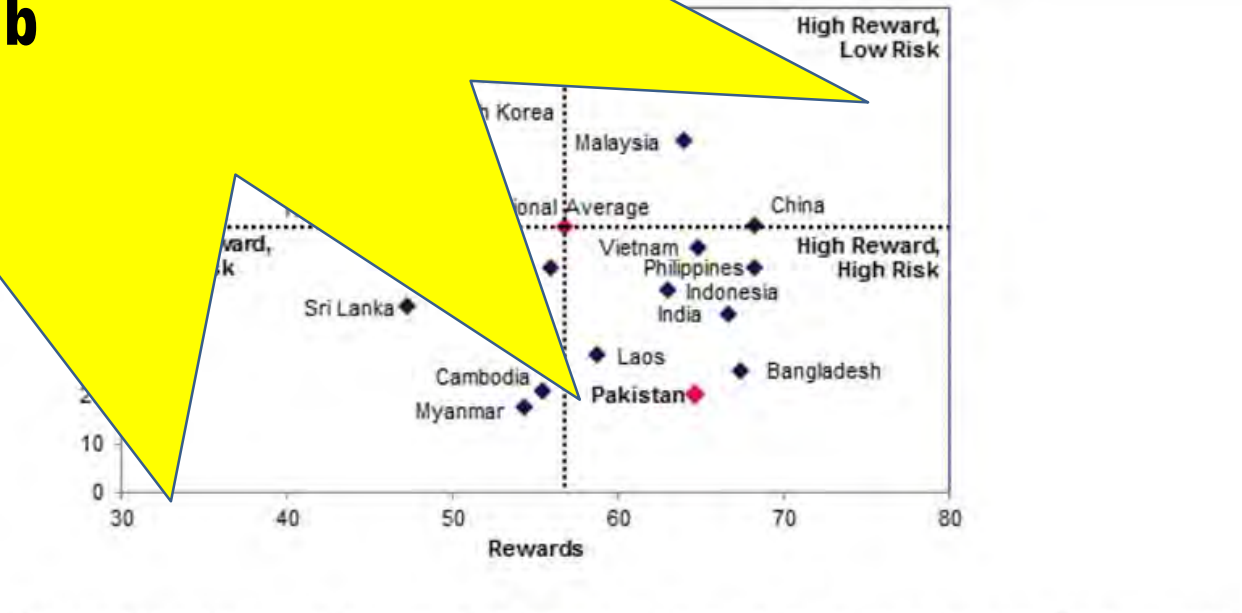
Training



Maritime



F



Light blue = Developed markets. Scores out of 100, higher score = lower risk. Source: BMI Infrastructure Risk/Reward Index



WHAT CAN A PORT AUTHORITY DO?

From purely shipping & ports perspective, the real key stakeholders are (1) main shipping lines (2) feeder shipping lines (3) private terminal operators (4) Government (including especially Port Authorities)

MODERN ROLES OF PORT AUTHORITIES

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD)

Guidelines for Port Authorities and Governments on the Privatization of Port Facilities, 1998

1. Port authorities ... have a key role to play in **facilitating the growth of trade** ... ports must be realigned ... **as trade facilitators** and not as income or employment generators.
2. The **OBJECTIVE** is to move the nation's international merchandised trade as efficiently and inexpensively as possible.

FOCUS ON EFFICIENT PROVISION & EXECUTION -

1. Landlord function
2. Policy making & planning
3. Regulatory, supervisory & surveillance
4. Monitoring & promotion
5. Port training

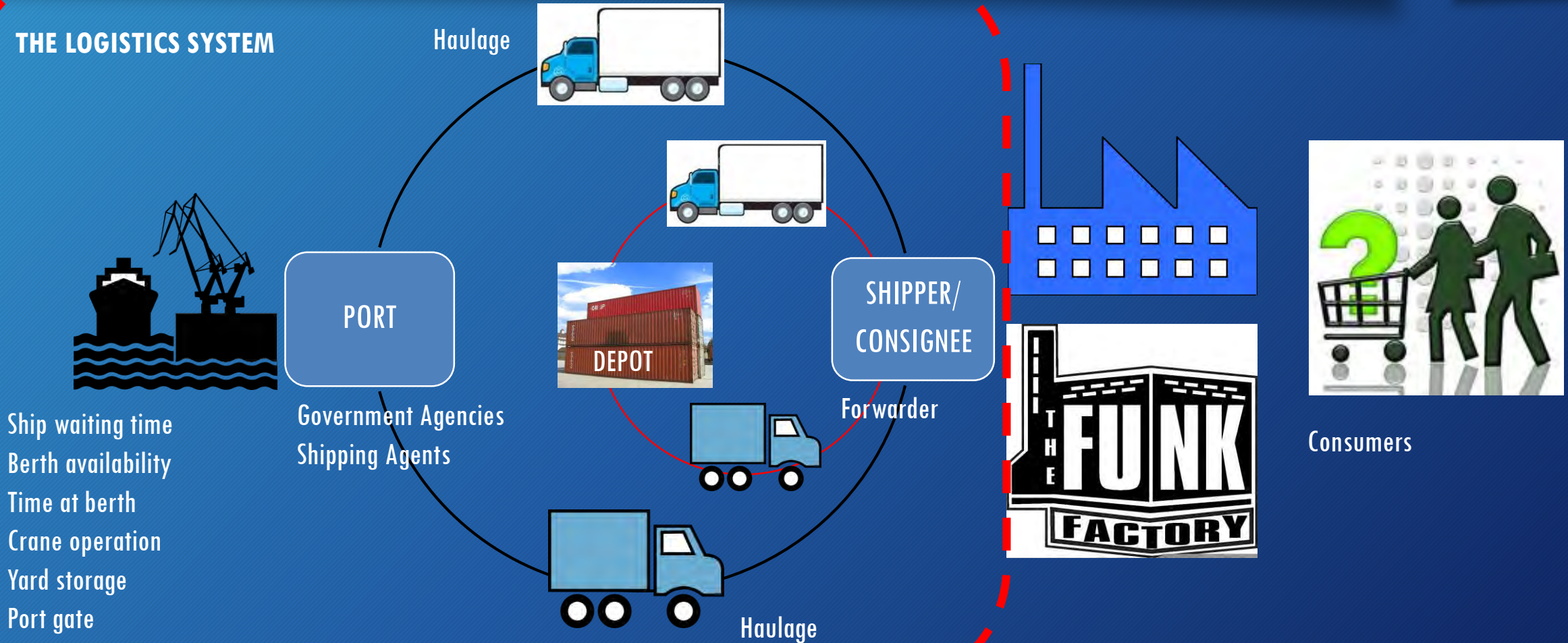
A red rectangular stamp with a distressed, ink-like texture. The word "IDEAL" is written in bold, white, uppercase letters inside the stamp.

ROLE OF A PORT AUTHORITY

1. act as a **COORDINATOR** between various stakeholders in a port (port operator, ships, shipping agent, cargo agent, haulage)
2. provide an **INFORMATION HUB SERVICE**; data centre or information centre for all stakeholders
3. **DISSEMINATE DATA** (data sharing)
4. **ENCOURAGE STUDIES** on ports either internally or externally
5. promote **BENCHMARKING**
6. **SHARE BEST PRACTISES**, with other ports within the country or outside
7. suggest **POLICY ADVICES** to promote greater efficiency in the transportation system.

ROLE OF PORT AUTHORITY IN A TYPICAL PORT RELATED ACTIVITIES

THE LOGISTICS SYSTEM



CASE OF JOHOR

SOME INITIATIVES BY JOHOR PORT AUTHORITY

SOME INITIATIVES BY JOHOR PORT AUTHORITY

- Strengthen and realign JPA organization structure, vision, mission and objectives to be more industry centric (changing role of port authority)
- Focus on proper port physical infrastructure development and planning
- Continuity on human resource training
- Greater emphasis on Safety, Security, Health, Environment
- Ensure greater awareness of port activities within the community
- Promoting and facilitation greater efficiency in port related business

STRENGTHEN PORT CAPACITY – IMPROVE OPERATIONAL EFFICIENCY

PHYSICAL INFRA-STRUCTURE

terminal facilities, storage yard, navigation channel, cargo handling equipment

Johor ports development blueprint, PTP Master Plan, Johor Port 5 Years Plan, Deepening of channel

SYSTEMS

TOS, digitalization, automation

eGateway, Port Traffic Management System, Port Community System, SMART Port Plan

OPERATIONAL EFFICIENCY

Measure performance, set KPIs

“Measure what can be measured, and make measurable what cannot be measured.”

— [Galileo Galilei](#)

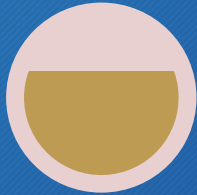
Berth utilisation, vessel turnaround time, moves per crane per hour

ENHANCE PORT SAFETY, SECURITY, HEALTH & ENVIRONMENT



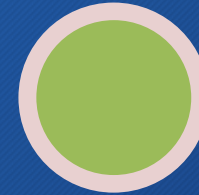
SAFETY & SECURITY

Port VTMS, AIS, ISPS Code, pilotage & tug services,
Deepening of navigation channel



WORKERS HEALTH & SAFETY

Set safe operational procedures, PPE
Zero Accident Target



ENVIRONMENT

Green Port Policy, e-RTG, solar power
BWM Study, ship emission study, clean bunkers target, TPEP

STRENGTHENING HUMAN CAPITAL

IMPROVE KNOWLEDGE OF PORT USERS

Port Week Conference
Collaboration with other parties
(MDBC)

INCREASE COMPETENCY OF WORKERS

Port Centre of Excellence
Promote proper training &
certification

FACILITATE & PROMOTE PORT BUSINESS

FACILITATE



- Stakeholders engagements & dialogues
- Engagement with Government Agencies

REDUCE RED TAPES



- Port Community System, Online Licensing
- eGateway

CSR



- Port Week, Schools Program, Community Engagement Programs
- Port Gallery, Tanjung Pelepas Eco Park

MAIN PORT: PORT OF TANJUNG PELEPAS

Facilities

- 10.5 million TEUs capacity
- 14 Berths — 5.04km linear quay
- Navigation Channel Draft — 16 meters
- Container yard with 239,400 TEUs capacity
- 5,080 Reefer Points
- 12 lanes gate complex
- 45 Pilots & 8 Tug Boats

Equipment

- 58 super-post Panamax cranes
- 174 Electrified Rubber-Tyred Gantry cranes
- 422 Prime Movers
- 20 Empty Handlers
- 2 Reach Stackers
- Integrated IT Systems — Navis Sparcs

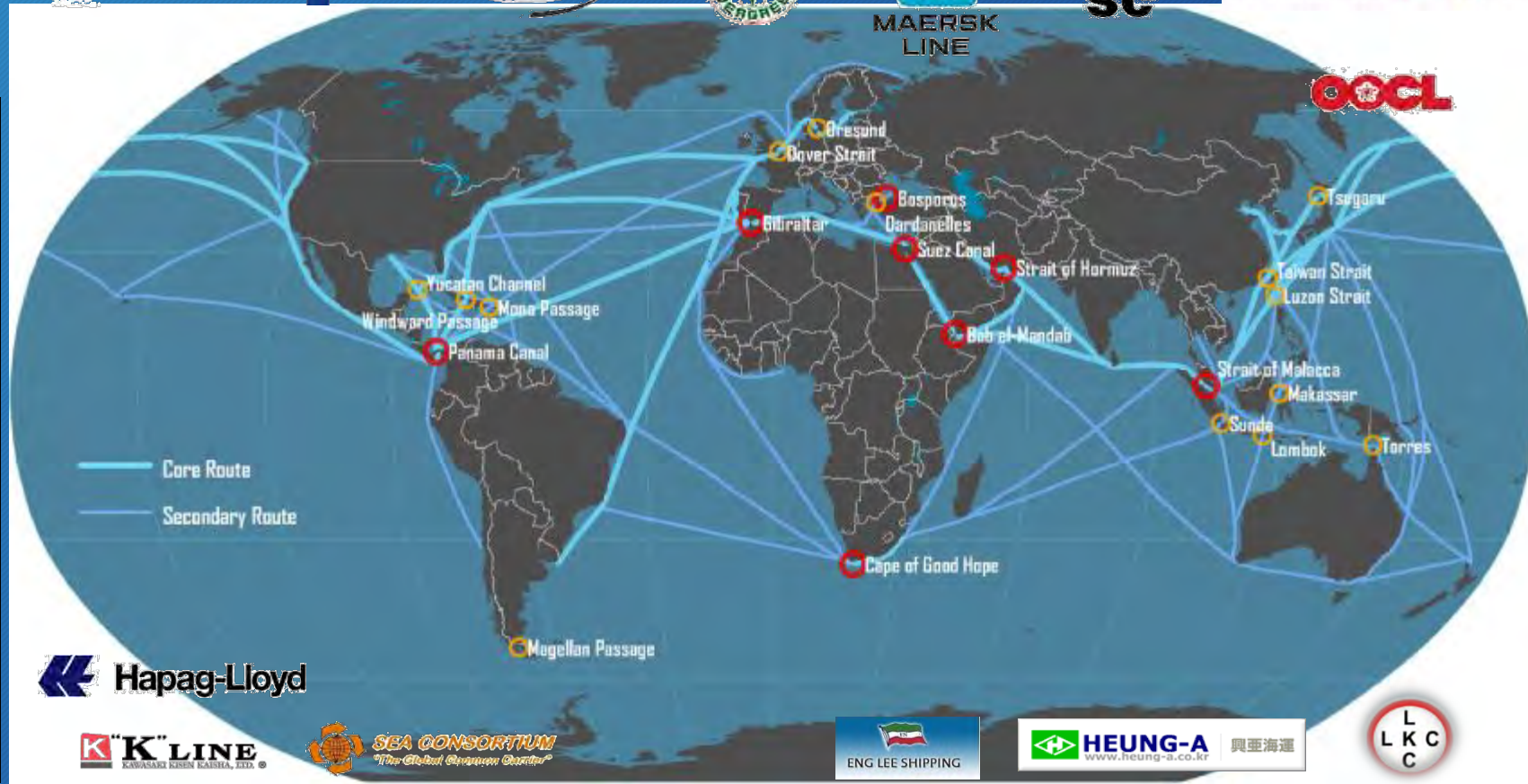


CONTAINER SERVICES AT PTP



Sailing frequency

Route	Frequency (per week)
Intra-Asia	>45
Europe/Mediterranean	11
India Sub Continents	5
Middle East/Red Sea	2
Africa	13
US	5
South America	2
Oceania	4



30 shipping lines calling PTP

Connected to over 300 port of calls globally with >100 weekly services

Maersk Line Transshipment Hub (2000); Evergreen (2002)



LOGISTICS PARKS & DISTRIBUTION CENTRES IN ISKANDAR MALAYSIA, JOHOR

Project Description

To create an integrated logistics cum manufacturing hub with complete range of services and access to seaports and airport. Logistic support services shall be upgraded from the current 1PL, 2PL and 3PL to higher-end services ranging from 4PL right up to 7PL. A network of truck routes along the freight corridor shall be developed to connect logistic hubs.

Actions

- To develop logistic park and distribution centre to support the logistic activities in Iskandar Malaysia.
 - Distribution Centre & Storage services-Kulai, Tebrau
 - Halal Hub-Sedenak & Tanjung Kupang
 - Hi-Tech Logistic Hub- Senai

Location	Industrial Park	Logistic Park
Sedenak Logistic and Distribution Park	165 hectares	41 hectares
Kulai Logistic and Distribution Park	2,579 hectares	160 hectares
Senai Hi-Tech Logistic and Distribution Park	421 hectares	416 hectares
Tebrau Logistic and Distribution Park	-	38 hectares
Tg. Kupang Logistic and Distribution Park	500 hectares	41 hectares

Key Champion

- Logistic companies, developers, rail, highways, port and airport operators

Impacts and KPI by 2025

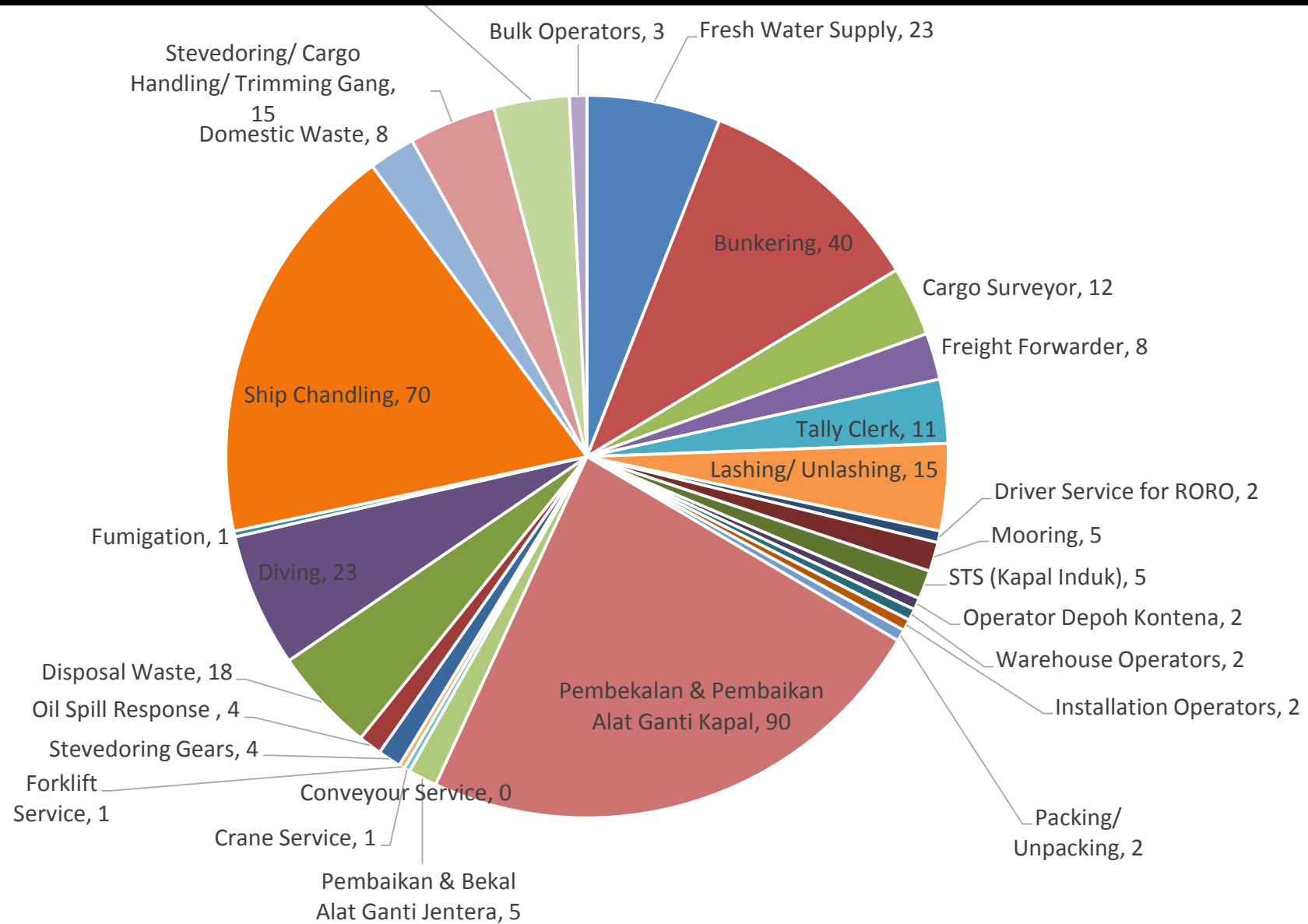
Total Investment	RM5.14 billion
Funding Source	100% Private Funding
GNI (RM million)	RM46.7 billion
Jobs Created	84,250



- ① Sedenak
 - ② Kulai
 - ③ Senai
 - ④ Tebrau
 - ⑤ Tanjung Kupang
- ✈️ Airports
 - 🚢 Seaports
 - 🏭 Existing Industrial Areas
 - 🔴 Industrial Expansion Area
- 🚊 Railways
 - 🛣️ Highways
 - 🛤️ Main Roads

PORT SUPPORT SERVICE LICENSES

ISSUED BY JOHOR PORT AUTHORITY



PTP – Free Zone

40 Companies, RM2.6 Billion Invested, Employs over 15,000 workers

Light to medium scaled manufacturing industries



Warehousing and logistics

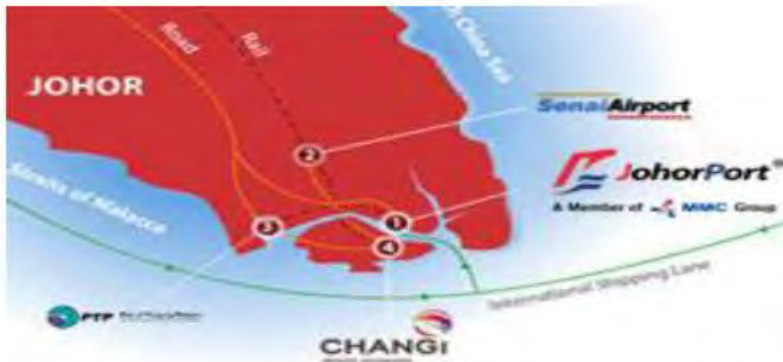


Testimony of Johor's attributes as a distribution hub

Johor Port – World's Largest Edible Oil Terminal



Located at the southern-most tip of Peninsula Malaysia, is strategically positioned in the heart of the sprawling **8,000-acre Pasir Gudang Industrial Estate.**



Linked to important commercial and industrial centres in Malaysia as well as other ports and neighbouring countries



World's largest
Palm Oil / Edible Oil Terminal
500,000 cubic meter storage capacity



Ranked 6th in the world
in terms of London Metal
Exchange volume
of 430,000 MT for the storage and
handling of non-ferrous metal

THE CHALLENGES

1. **Attracting the MLO (in a very competitive market)**
2. **Ever bigger vessels**
3. **Land for growth (competing use of foreshore land)**
4. **Fiscal incentives not forever**
5. **Government bureaucracies & red tapes**
6. **Cost of development**
7. **Port workers**



**change
ahead.**

SUMMARY – Developing Regional Maritime Hub

- 1. Right location**
- 2. Port is ready: infrastructure; service efficiency; future expansion**
- 3. Hinterland industry: support distribution business**
- 4. Right facilitation & incentives: tax relief, Free Zones**
- 5. Shipping connectivity**
- 6. Support services: finance, banking, legal ...**
- 7. Ease of doing business – port systems**
- 8. Embrace technology – digitization, IOT, automation**
- 9. Port Authority needs to drive the initiative**



THANK YOU FOR YOUR KIND ATTENTION!

