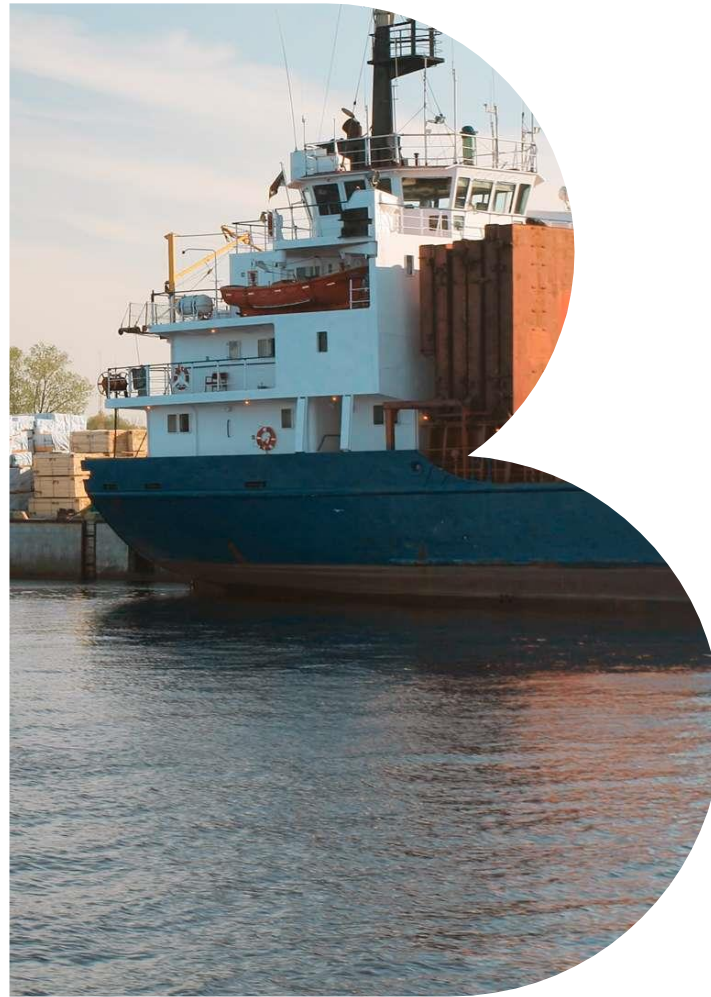


The role of ASEAN ports in setting a bright economic future in the region

14th ASEAN Ports & Shipping
2016, Exhibition and Conference,
Bangkok, 14 July 2016



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A. Introduction to Roland Berger



Roland Berger is a leading global strategy consulting firm with successful operations in all major international markets

Our global presence

www.rolandberger.com

50 offices in 36 countries, with approx. 2,400 employees

Over 220 partners with specific expertise organized in 14 competence centers

Serving over 1,000 international clients

Clients

75% repeat clients

30% of top 1,000 global companies

40% of Europe's leading companies



1) By revenues in the strategy consulting market, based on internal and available public reports

We have deep experience and expertise in supporting ports and maritime sector development around the world




Selected Roland Berger clients in ports and shipping

Ports



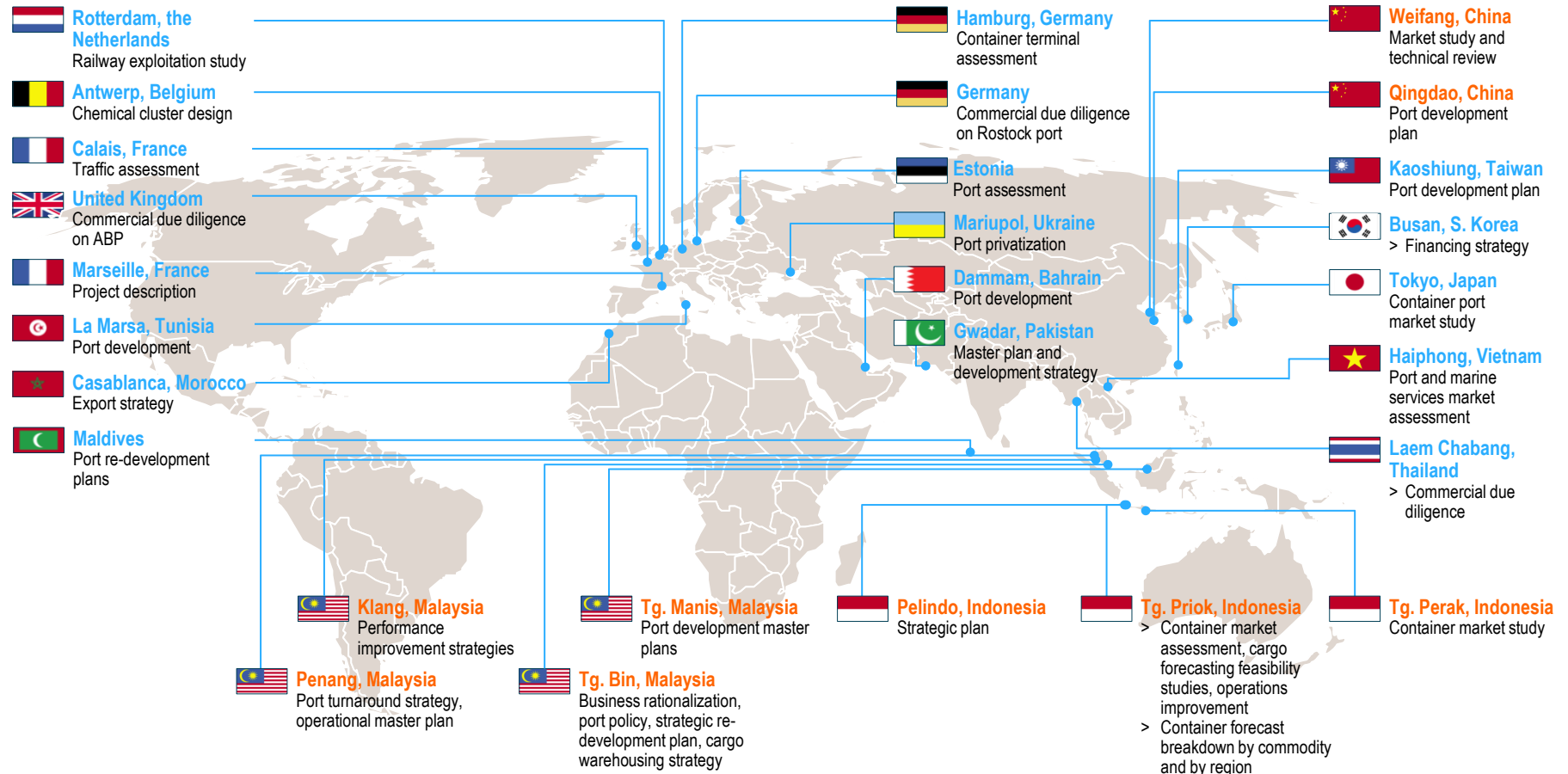
Shipping



-  We are proud to be a **top 5 player in the global strategy market**
-  We have **deep global port planning and development experience**
-  We have a **Global Ports and Shipping Practice**

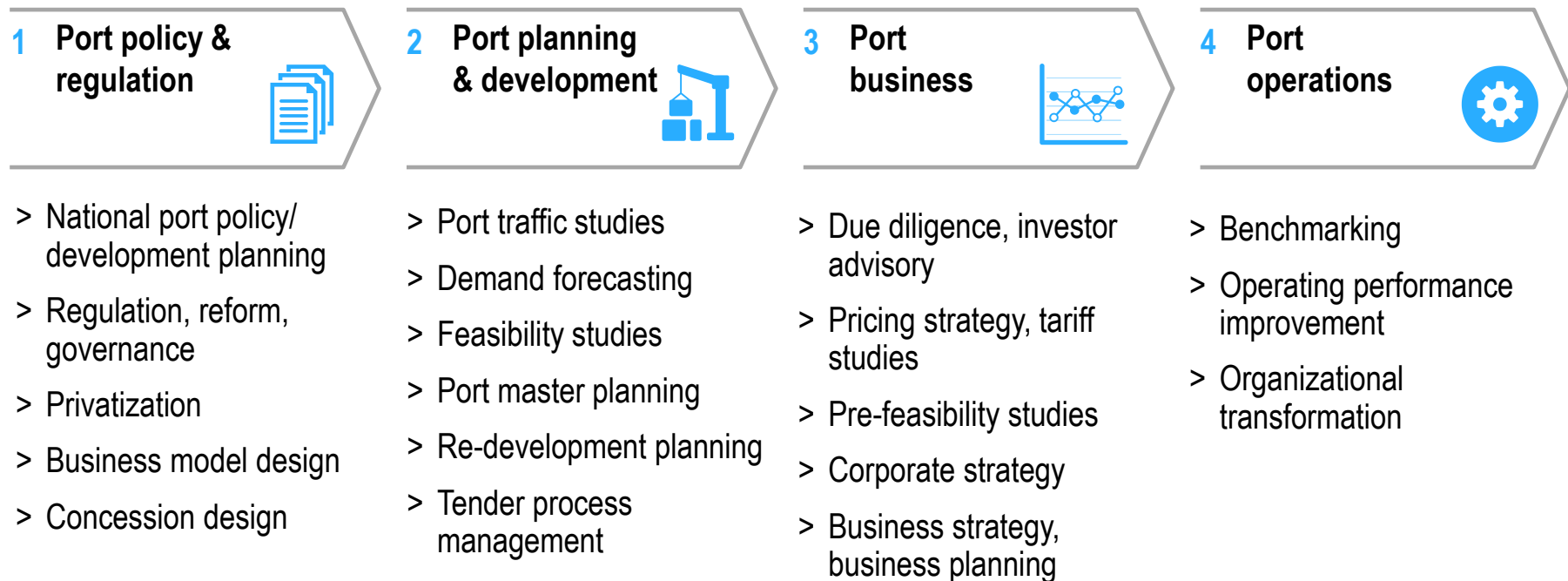
We executed numerous port projects with varying scope across the world

Recent port projects – selected samples



Within the port sector, Roland Berger offers an integrated approach and specialized services in **four** key areas

Our service offerings



For each assignment, we put together a dedicated and highly experienced team. We use specialized legal, financial, engineering and port planning partners where relevant

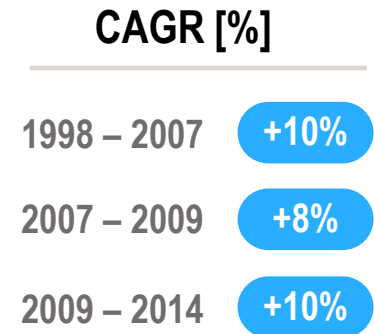
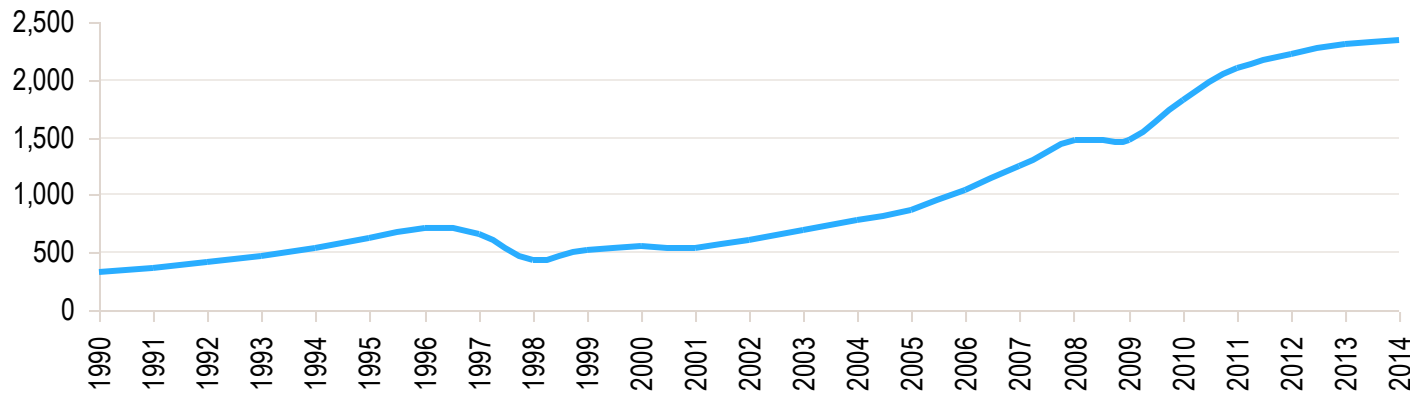
B. ASEAN Economic, Trade and Logistics Overview



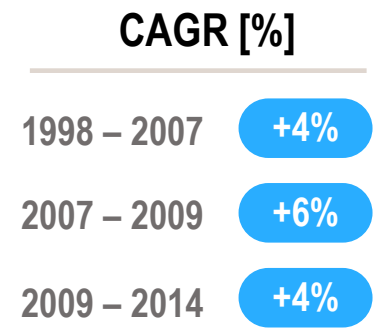
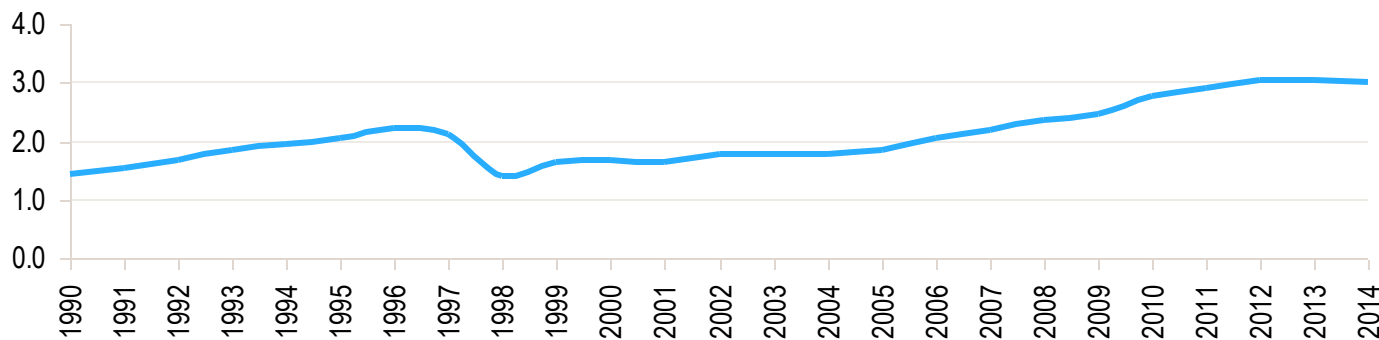
Southeast Asia has sustained and robust growth performance over the last few decades

Southeast Asia economic performance

ASEAN Member Countries' nominal GDP, 1990 – 2014 [USD bn]

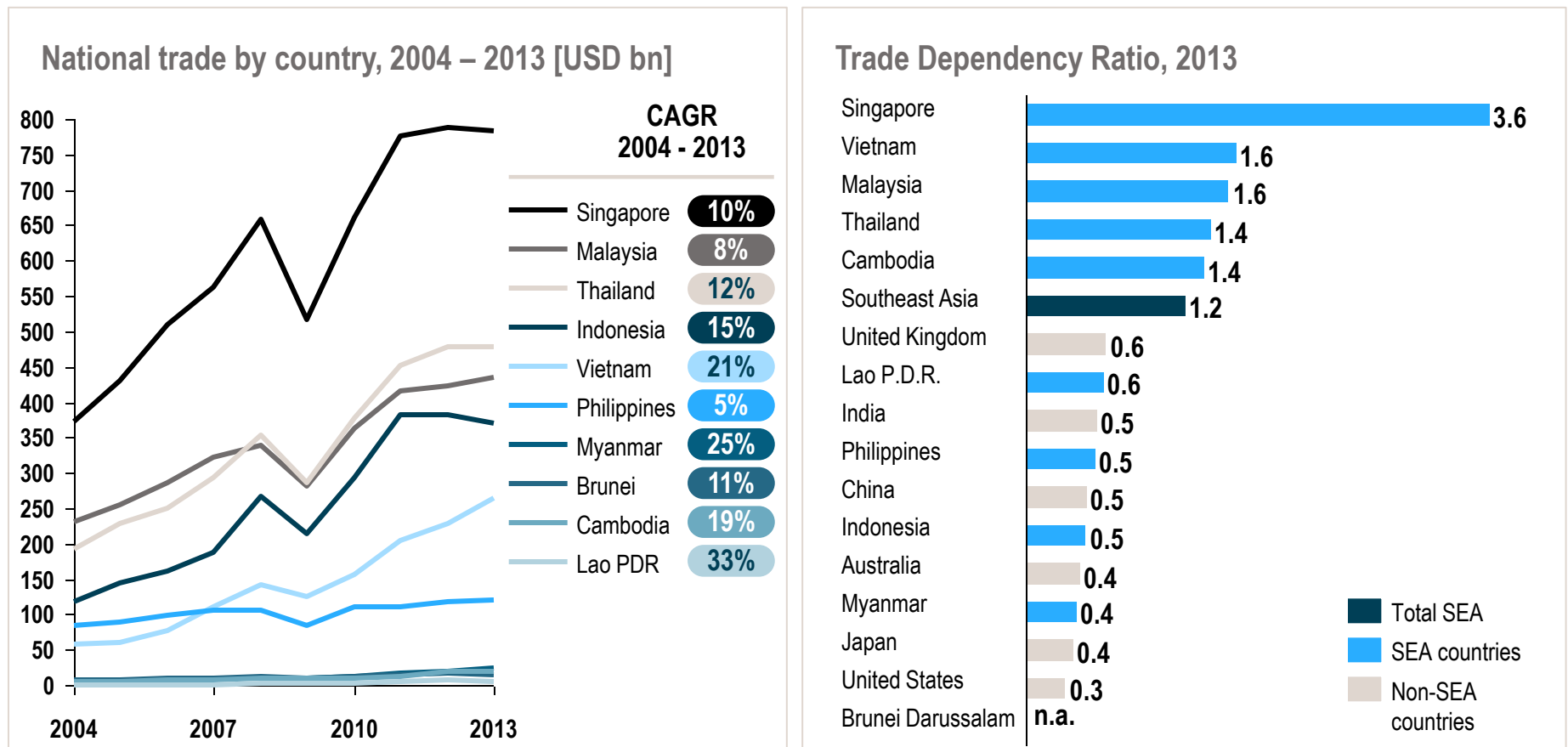


SEA Share of World GDP, 1990 – 2014 [%]



This strong economic performance is boosted by foreign trade – Making it one of the most trade dependent region

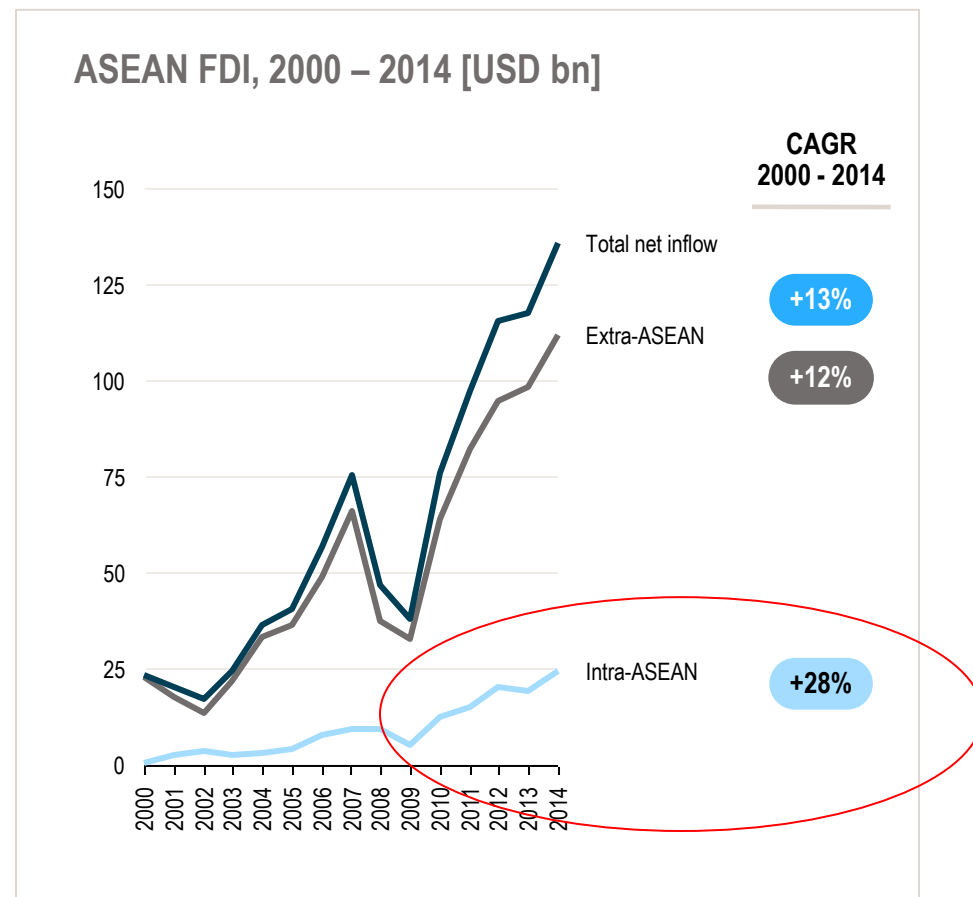
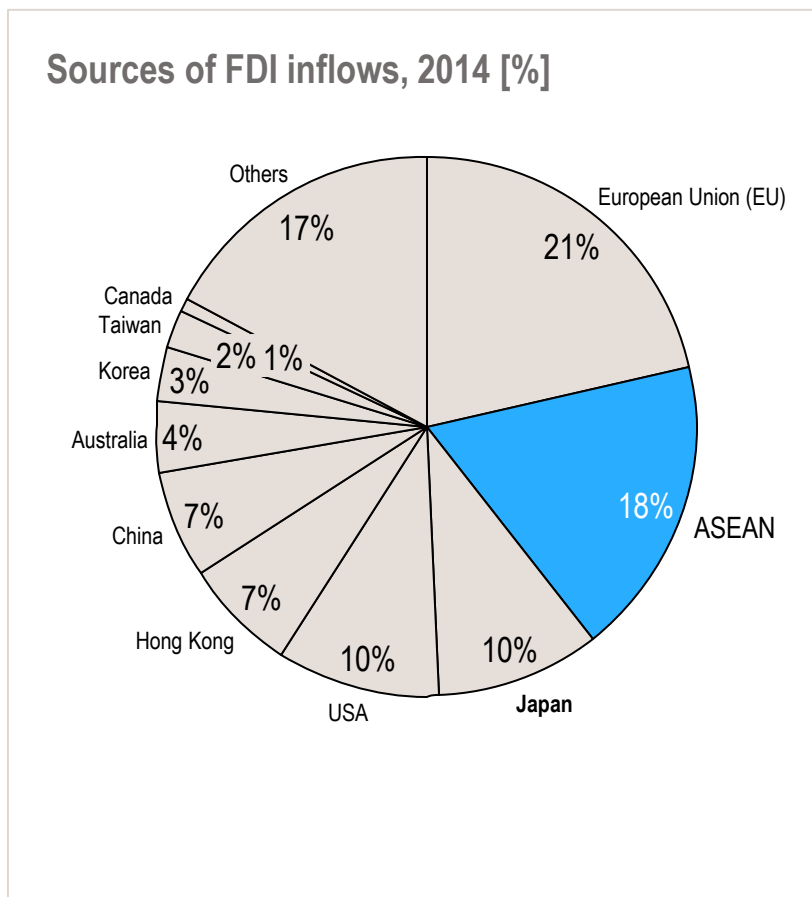
SEA trade growth and dependency ¹⁾



1) Trade dependency is equal to (Import + Export)/ GDP

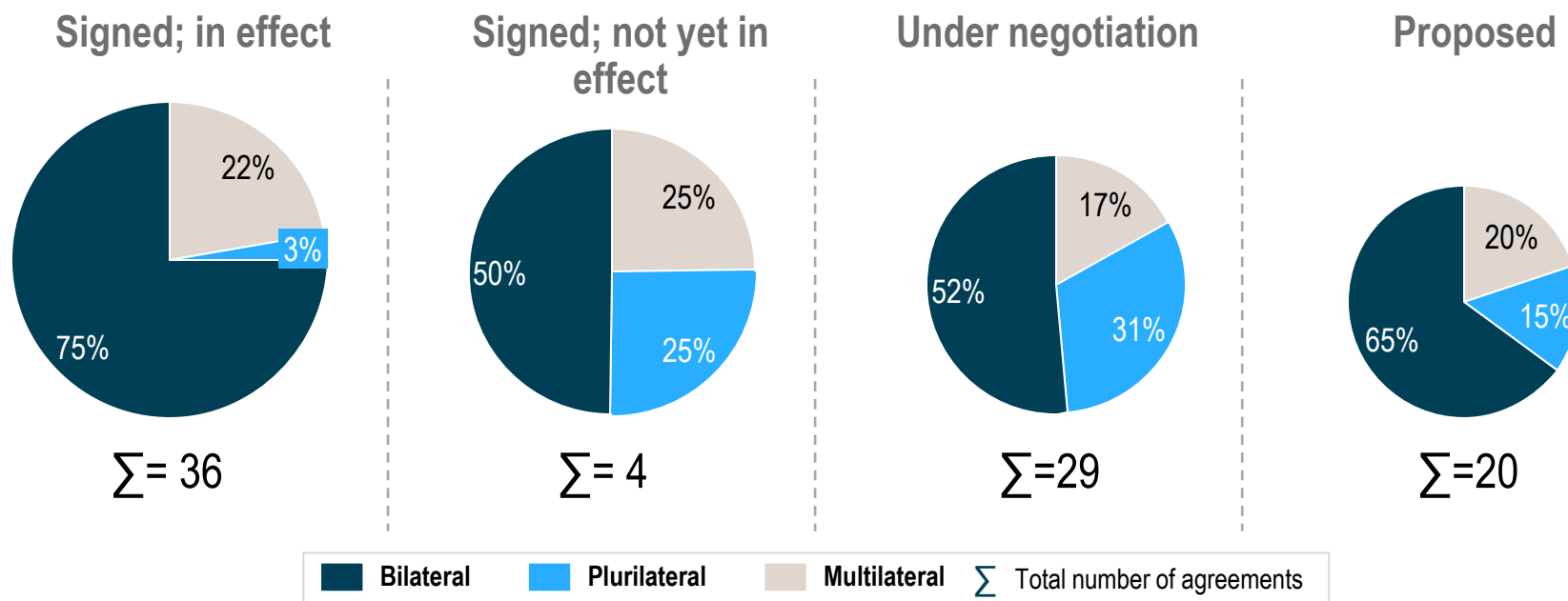
FDI has also been strong over the past decade. Growth of intra-ASEAN FDI is now outpacing extra-ASEAN FDI

Foreign Direct Investment into ASEAN Member Countries



Aware of this fact, ASEAN Member Countries have put significant effort to boost Free Trade Agreements with other countries

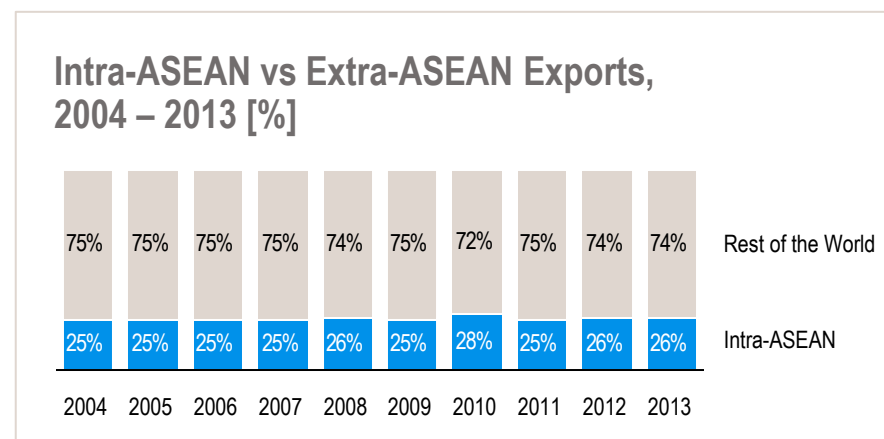
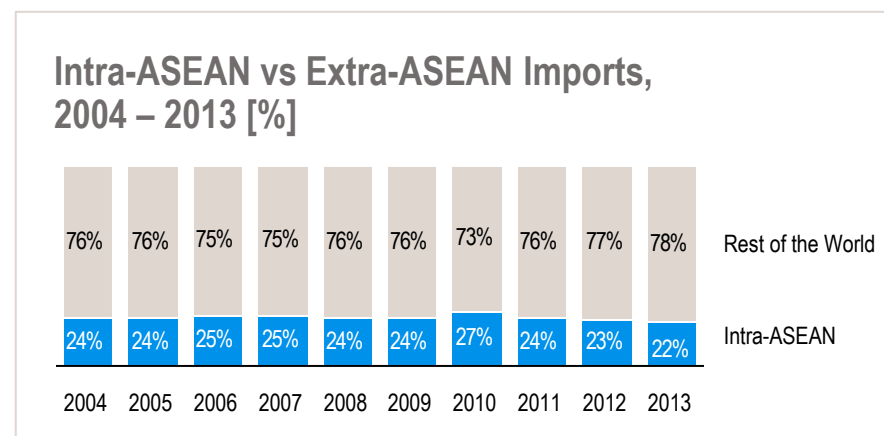
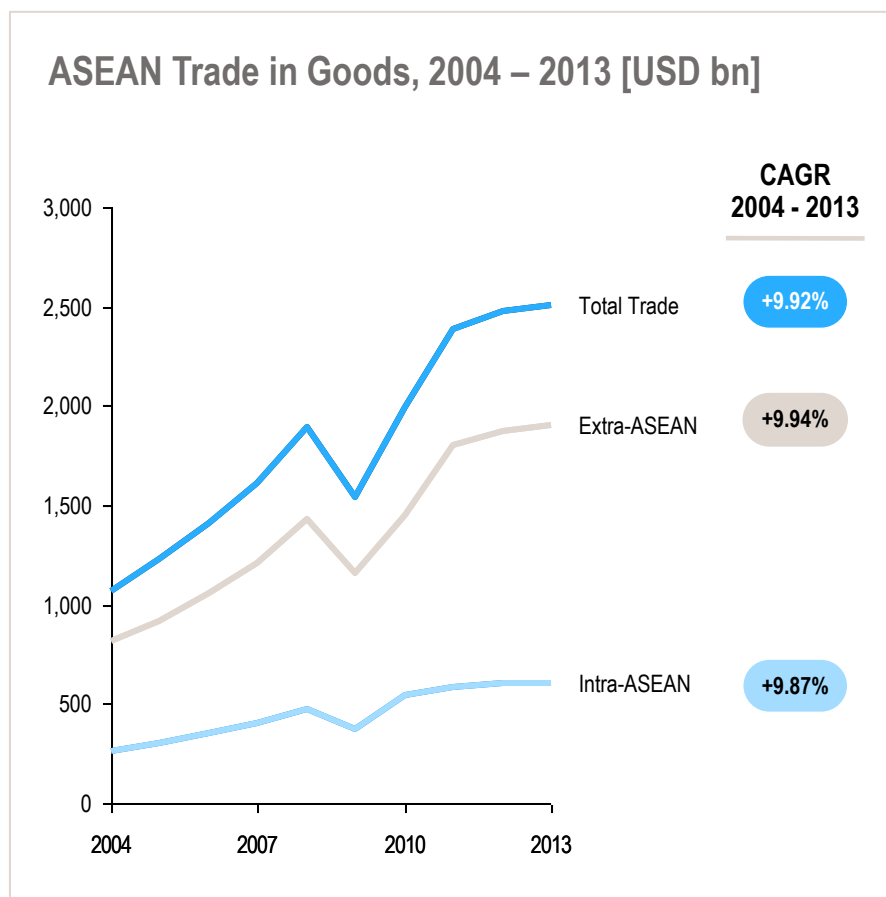
Status of ASEAN Free Trade Agreements, 2013 [%]



Fast-growing number of **Free Trade Agreements with non-ASEAN countries** that are **outpacing internal agreements**

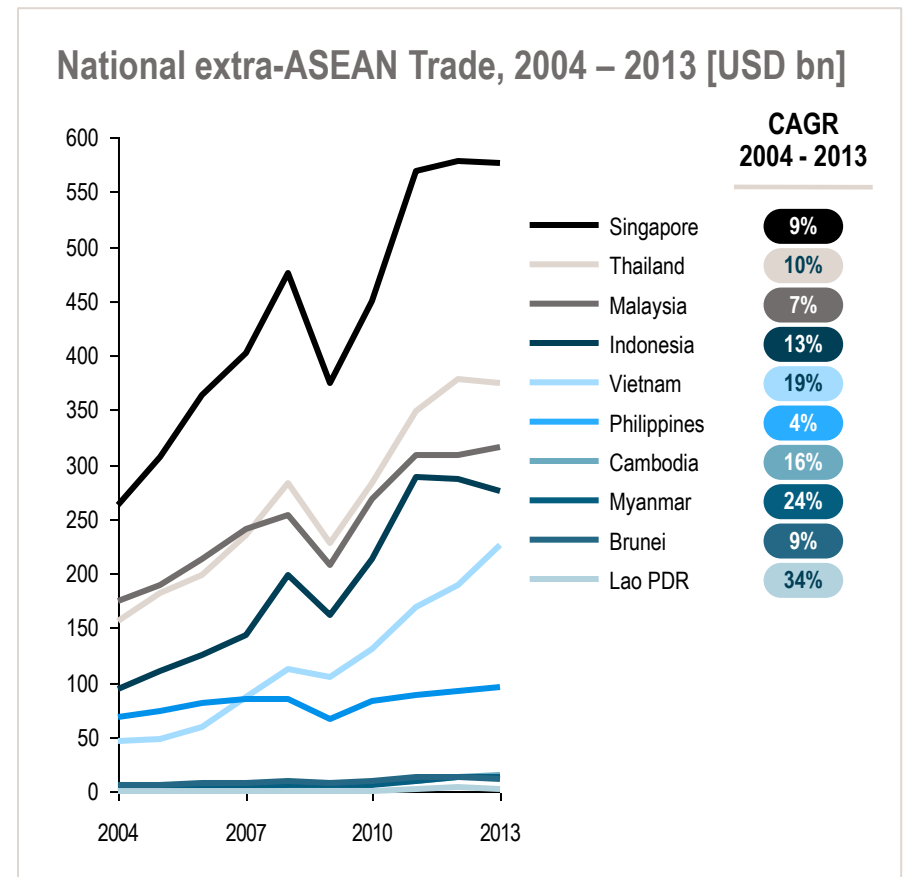
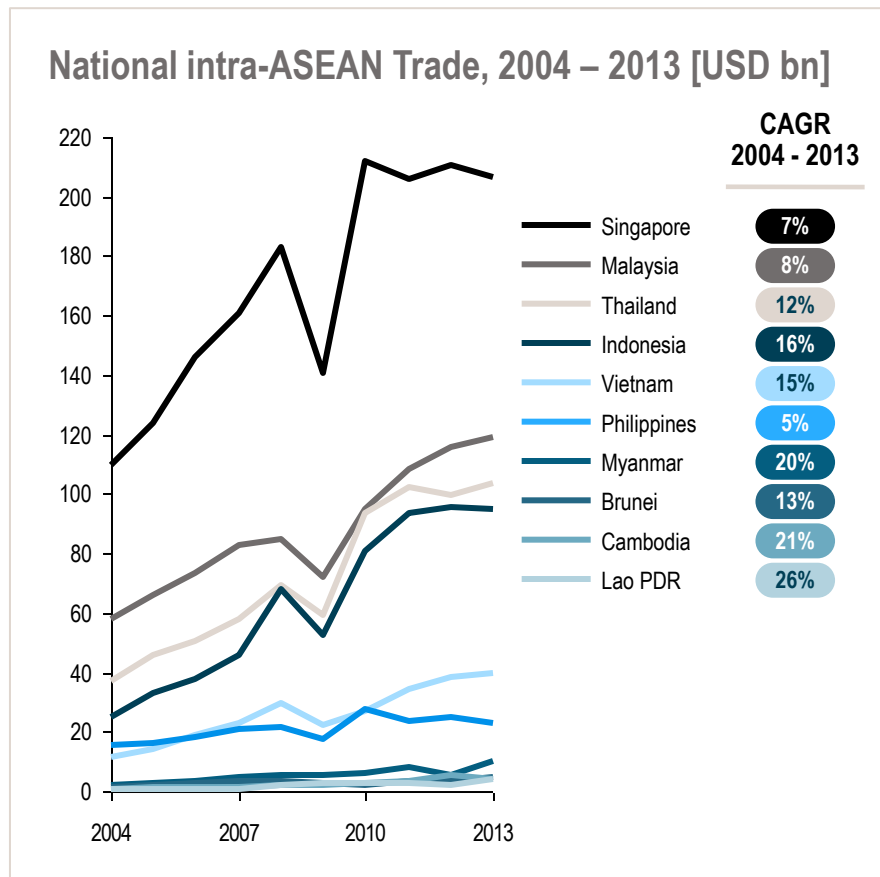
The combined efforts put into boosting both extra- and intra-ASEAN trade are showing great and continuing success

Regional intra and extra-ASEAN trade

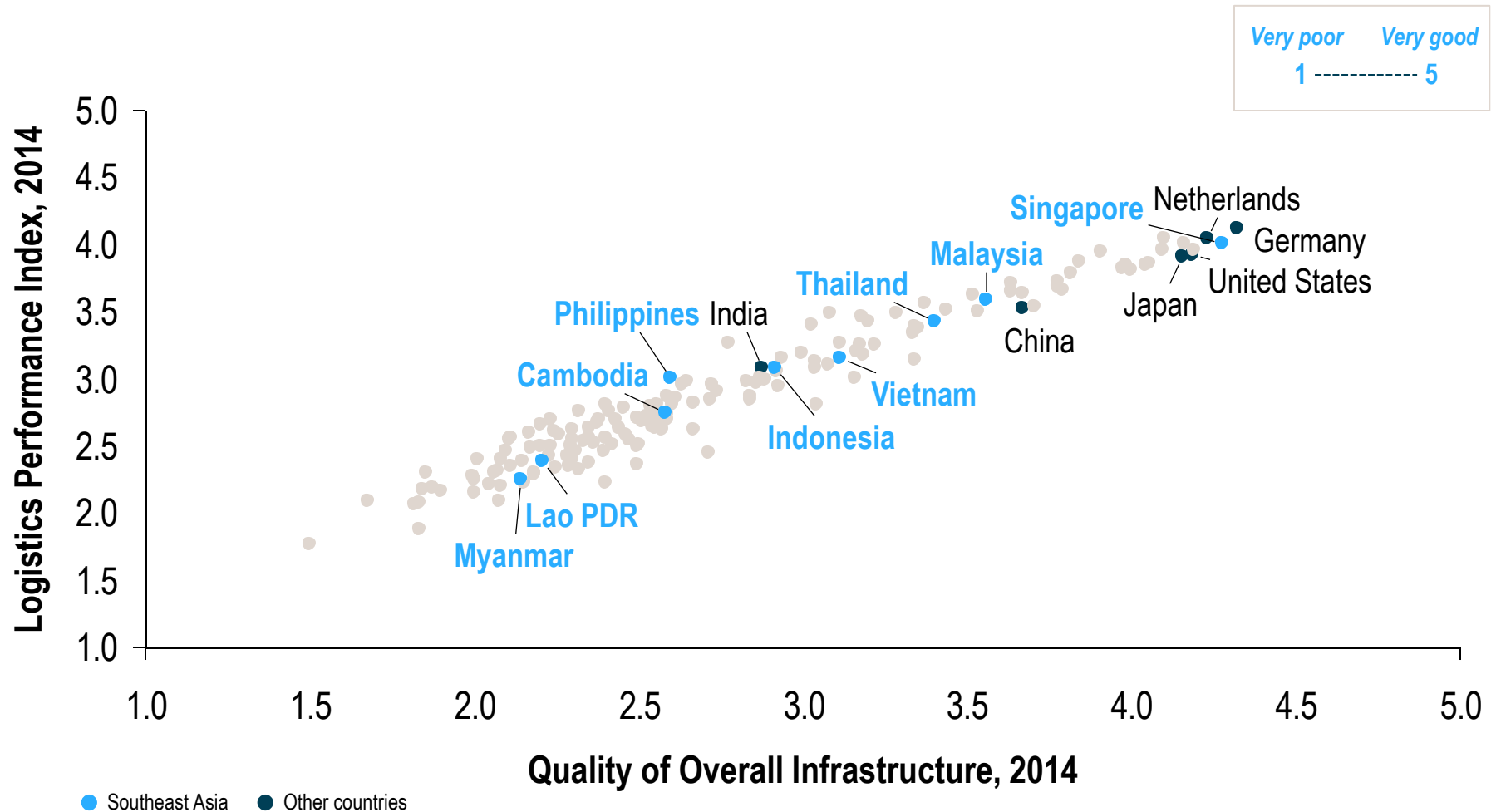


At country level, the variations in trading patterns indicate marked differences in levels of economic (ASEAN) integration by country

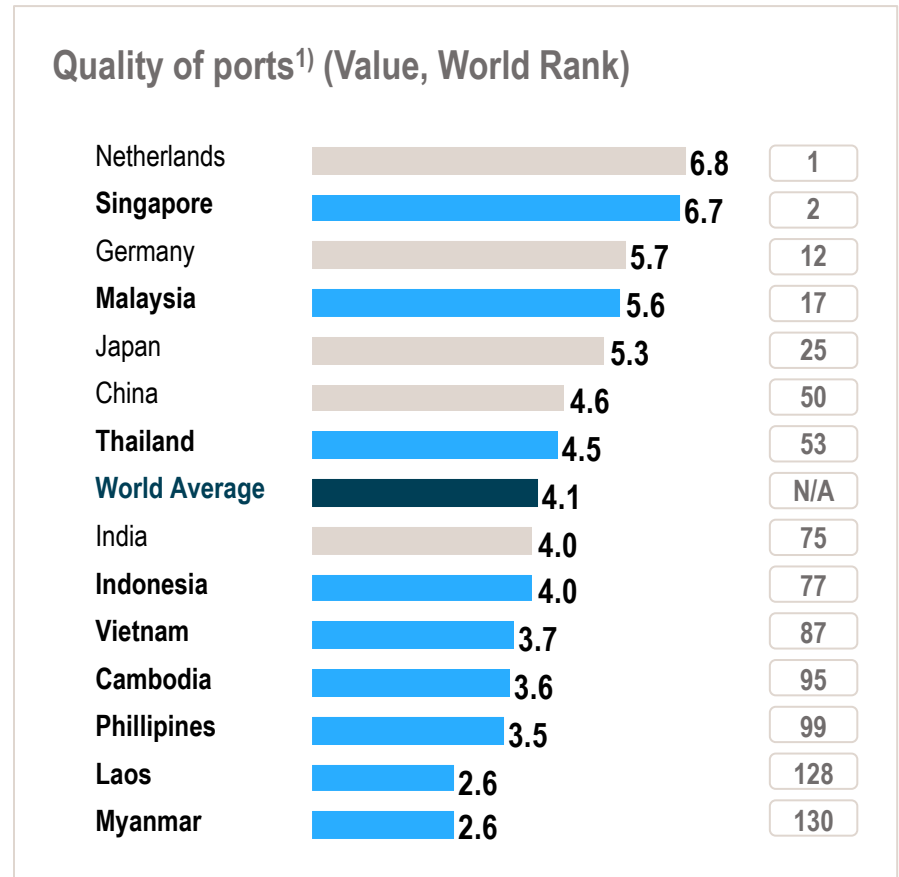
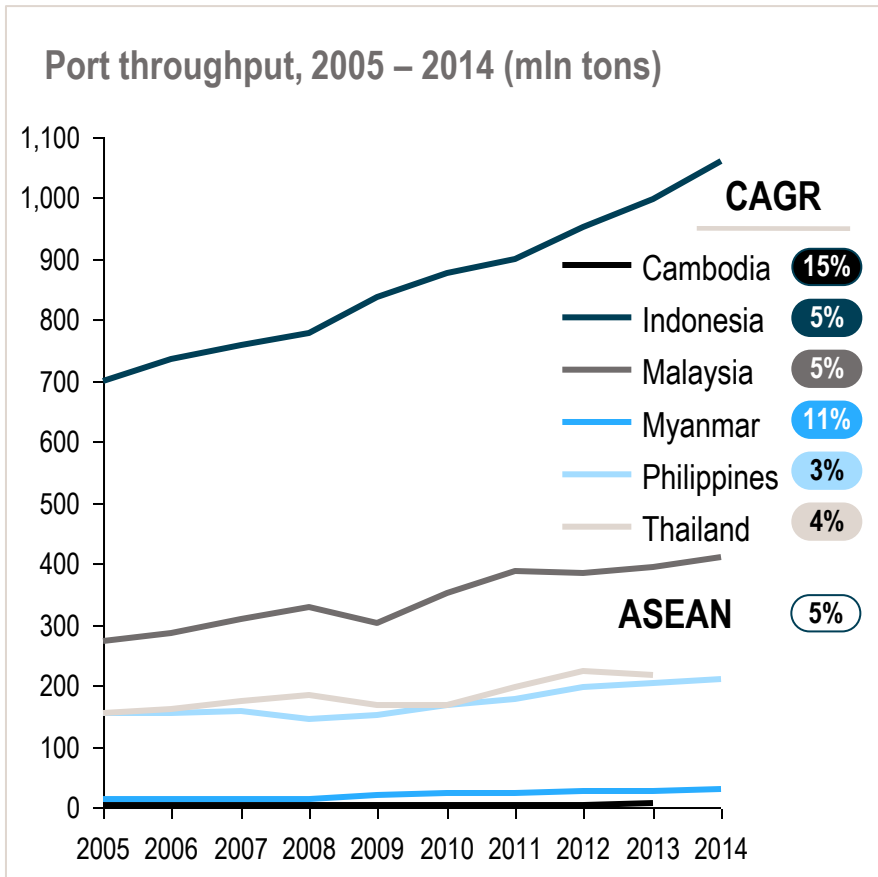
National intra and extra-ASEAN trade



To facilitate further trade growth, logistics performance of most SEA countries must be improved



The quality of most ASEAN ports remain below world average and has not kept pace with strong throughput growth within the region

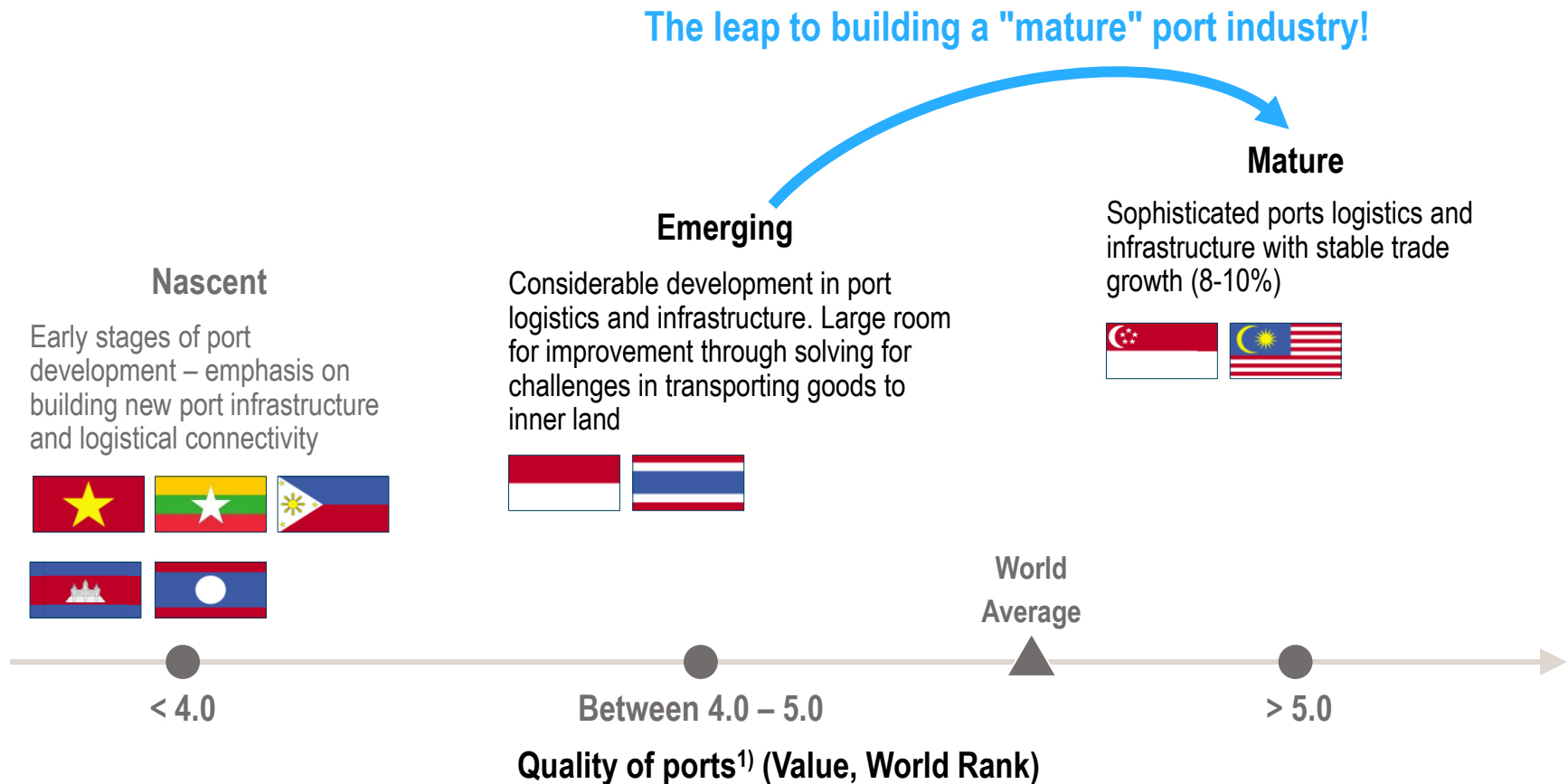


The only ASEAN countries that outperform the world average are Singapore, Malaysia and Thailand which leaves much to be desired to cope with continued growth in demand and vessel sizes

1) Information was collected from 144 countries worldwide. Data for Brunei was unavailable

Indonesia and Thailand are well-positioned to close this gap towards mature nations in the region

Port quality overview in ASEAN



C. Indonesia

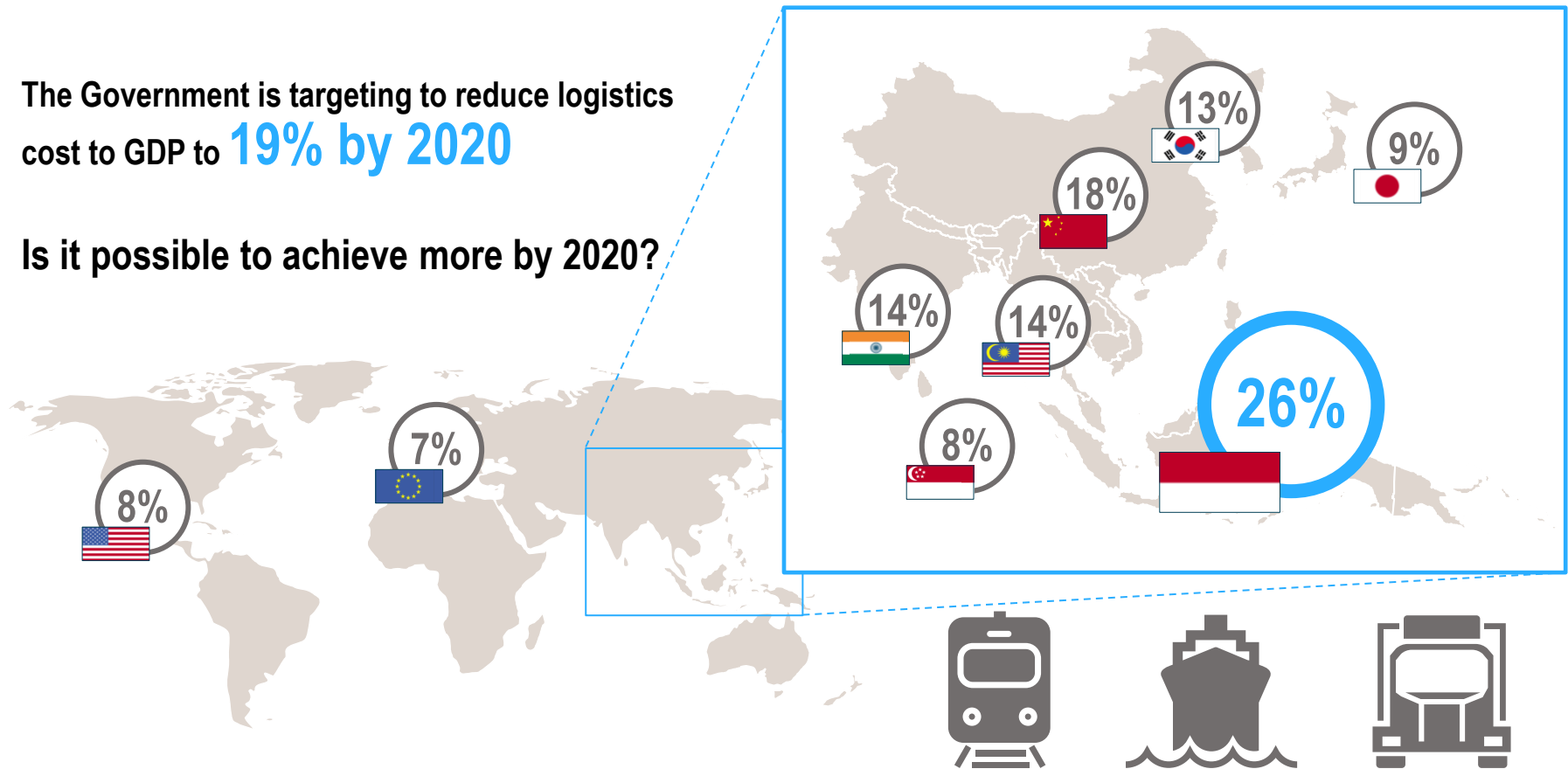


Global benchmarking shows that logistics costs in Indonesia are generally extremely high

Logistics costs as % of GDP, 2013

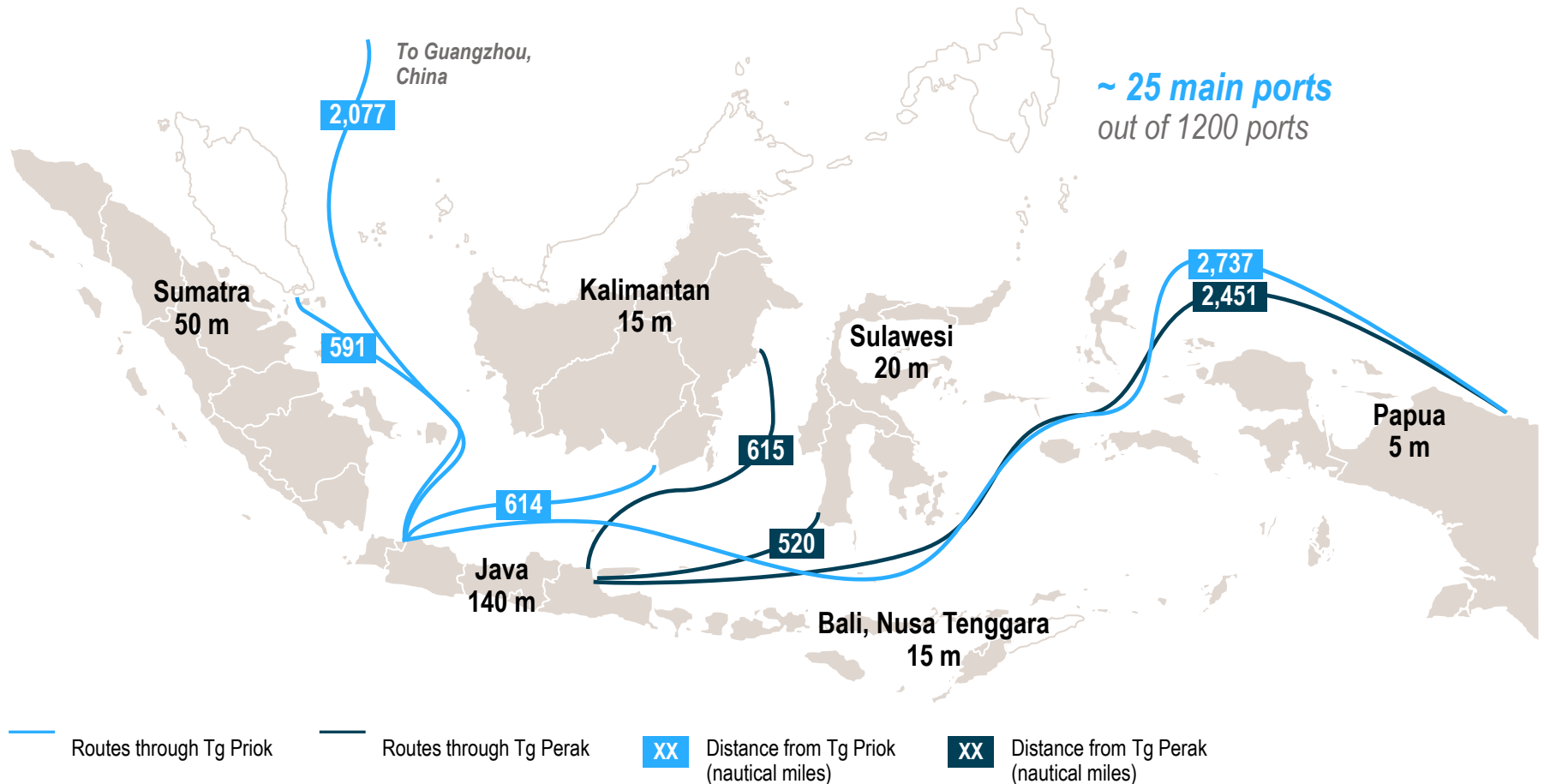
The Government is targeting to reduce logistics cost to GDP to **19% by 2020**

Is it possible to achieve more by 2020?



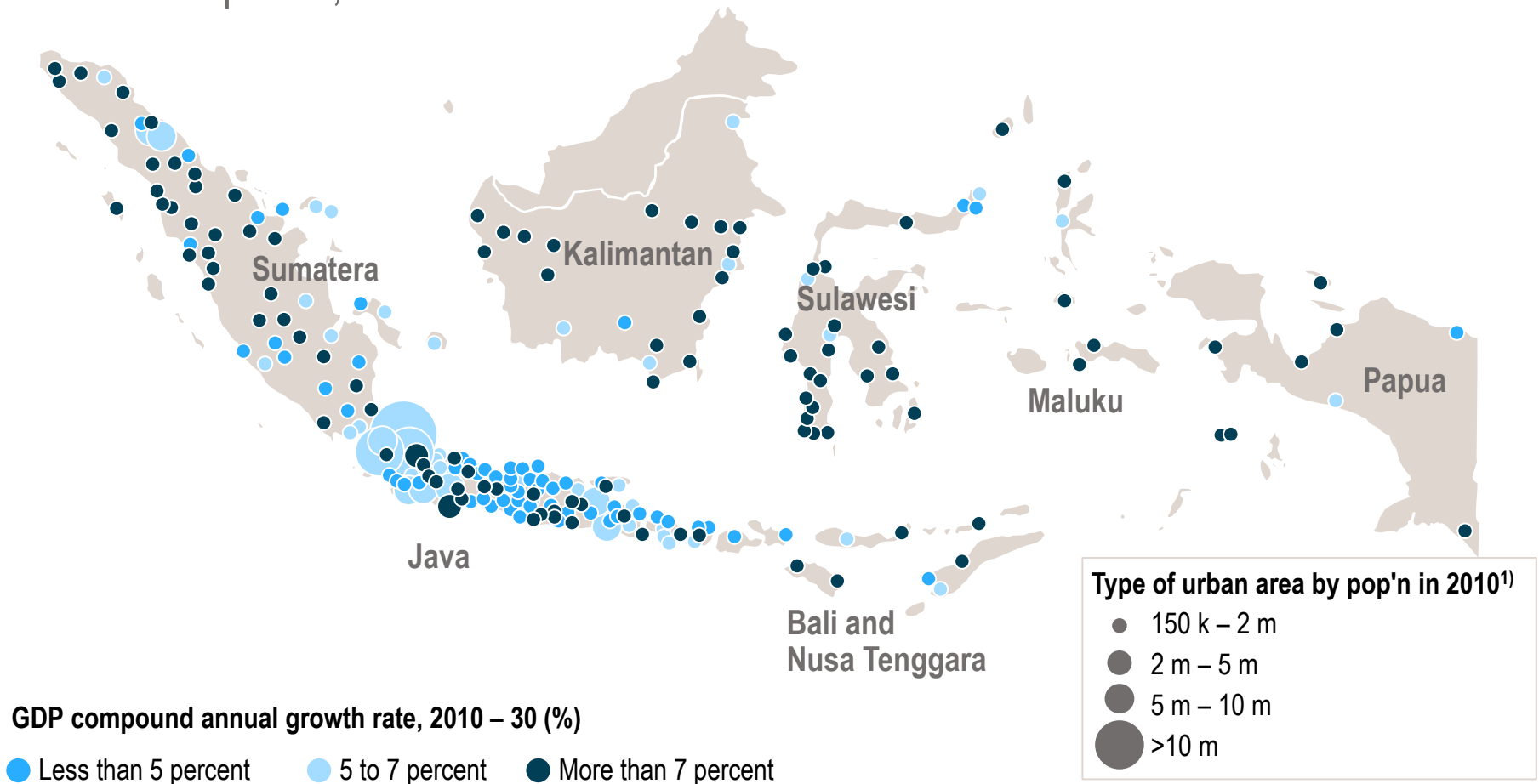
"Outer" regions have lower population densities and mostly long shipping distances from the economic centers on Java

Population heat map, 2014 (number of people)



With majority of Indonesia's fastest growing cities is located outside Java, improving distribution and shipping is imperative

GDP development, 2010 - 2013

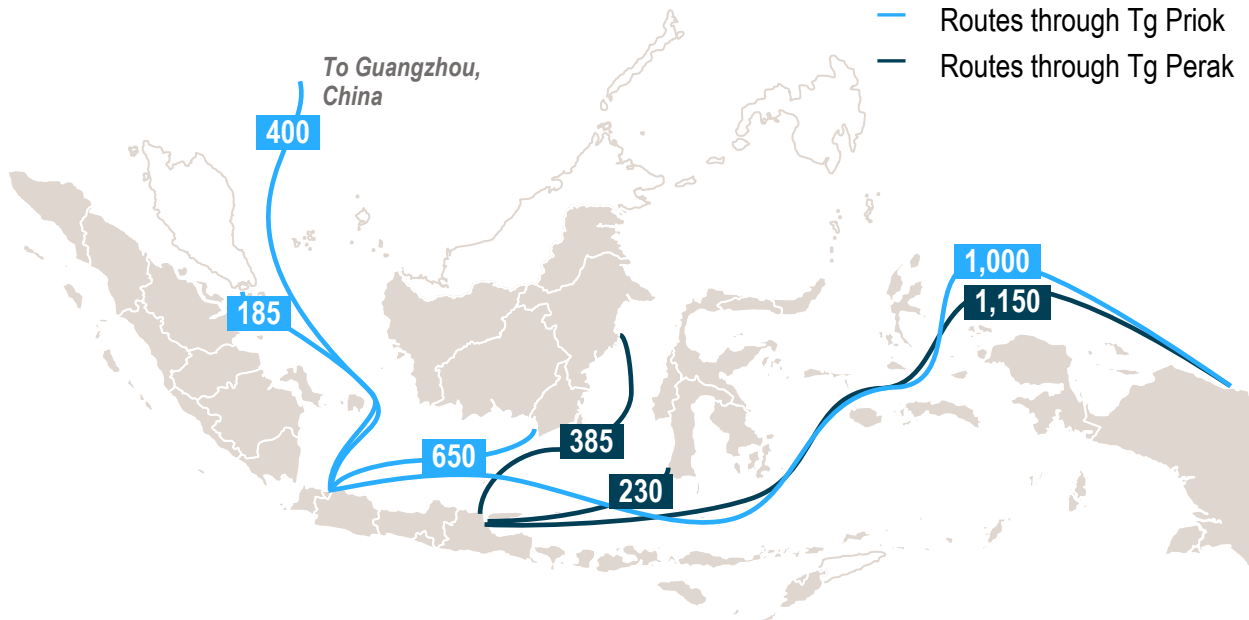


1) Urban areas are aggregated areas consisting of cities (kota) and districts (kapupaten) rather than specific city jurisdictions

Long distances combined with low volumes put extra strains on shipping costs

Route-to-market costs

Shipping costs from within and from Indonesia (USD / container), 2014



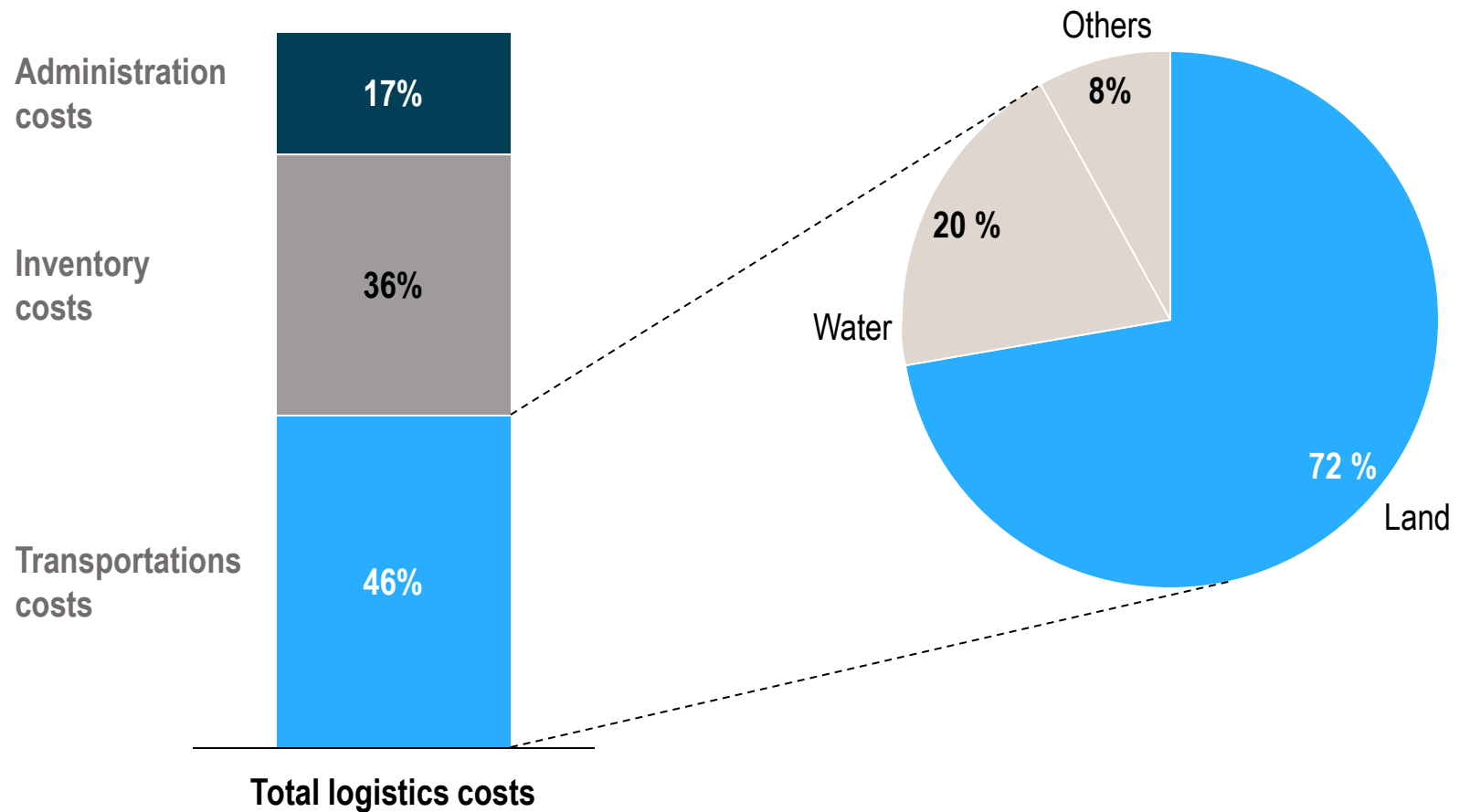
Cost per unit of distance
(USD cents / per container / nautical mile)

Tg Priok - Banjarmasin	106
Tg Perak - Samarinda	63
Tg Perak - Jayapura	47
Tg Perak - Makassar	44
Tg Priok - Jayapura	37
Tg Priok - Gouangzhou	31
Tg Priok - Singapore	19

■ Domestic route ■ International route

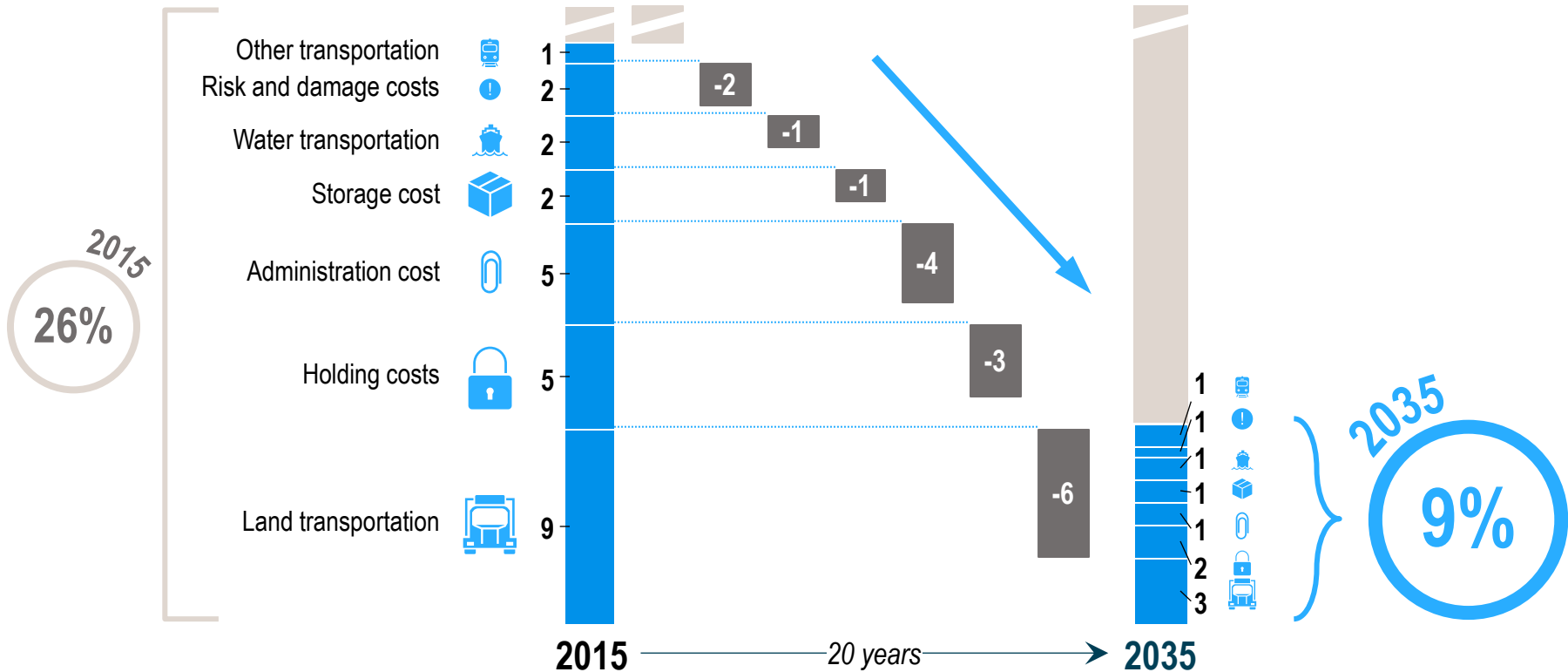
Transportation costs, with land transport in particular, have the highest contribution to total logistics costs in Indonesia

National logistics cost breakdown



1) Data in average for 2004-2011; except for inventory cost breakdown, data is in average for 2004-2010

Bringing logistics performance at par with OECD countries means reducing its logistics costs by a factor three in 20 years



-  Improve connectivity
-  Reduce holding time
-  Eliminate admin cost
-  Use better systems
-  Improve shipping
-  Reduce casualties
-  Grow rail use

The challenges to current port performance can be addressed from multiple dimensions

Illustrative, Non-exhaustive

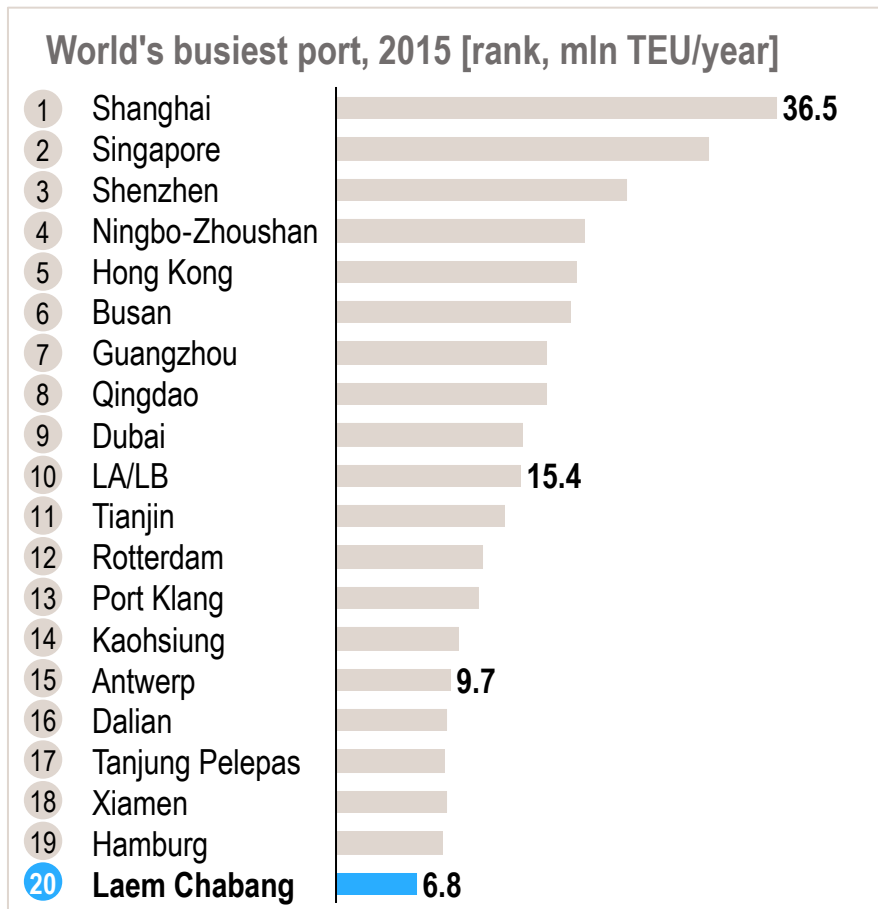
	Public sector	Private sector
Geographically dispersed volumes	Hub-and-spoke models, more gateways, rethink cabotage	
Small return cargos	Boost local economies, regionalize	Open dialogue on better shipping systems
Legacy shipping systems	Re-think, re-regulate	Open dialogue on better shipping systems
Fragmented forwarding industry	Re-think, re-regulate	Re-think business models
Outdated port operating models	Enforce best practices	Adopt proper codes of conduct
Port infrastructure limitations	Increase and improve investments	
Limited road and rail capacity	Massively increase and improve investments	
Road design flaws	Enforce higher standards	
Mode and route optimization	Increase and improve investments	Reassess route options

D. Thailand



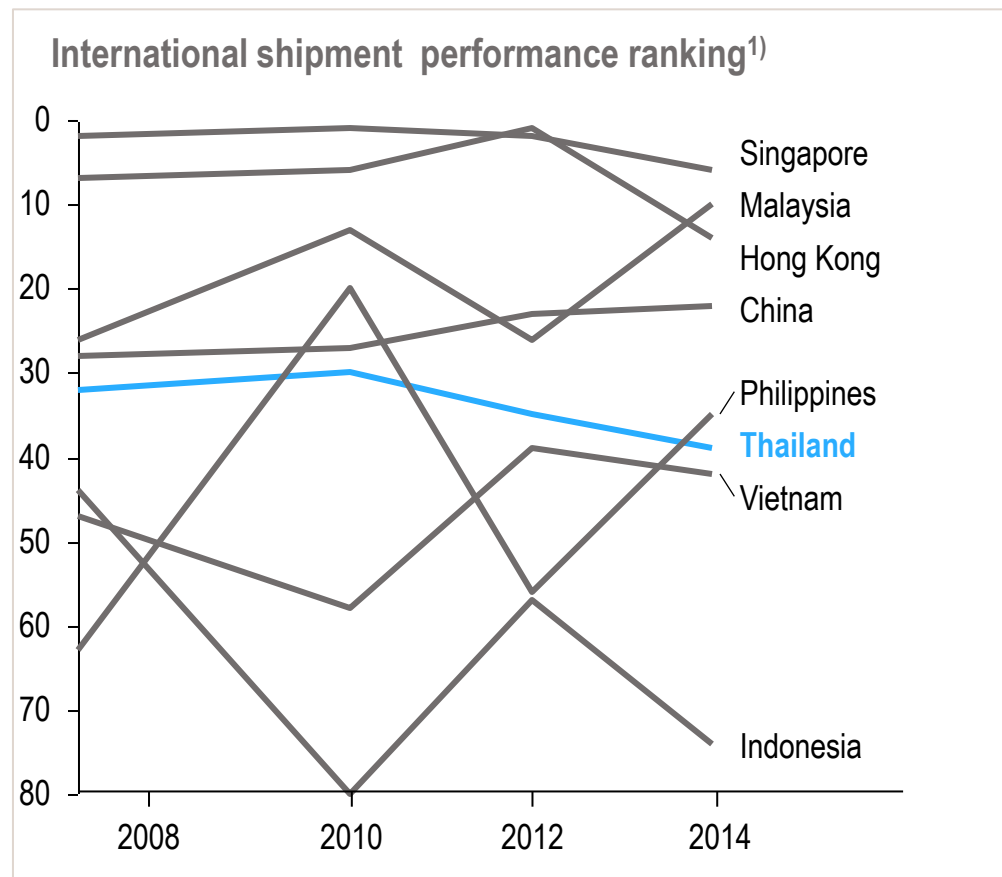
Thailand has a variety of international ports, including one of the world's busiest - Laem Chabang

Thailand's international ports



Although Thailand has major ports (Bangkok, Laem Chabang), it is behind its regional peers in terms of port competitiveness

Port competitiveness vs. regional peers



Insights

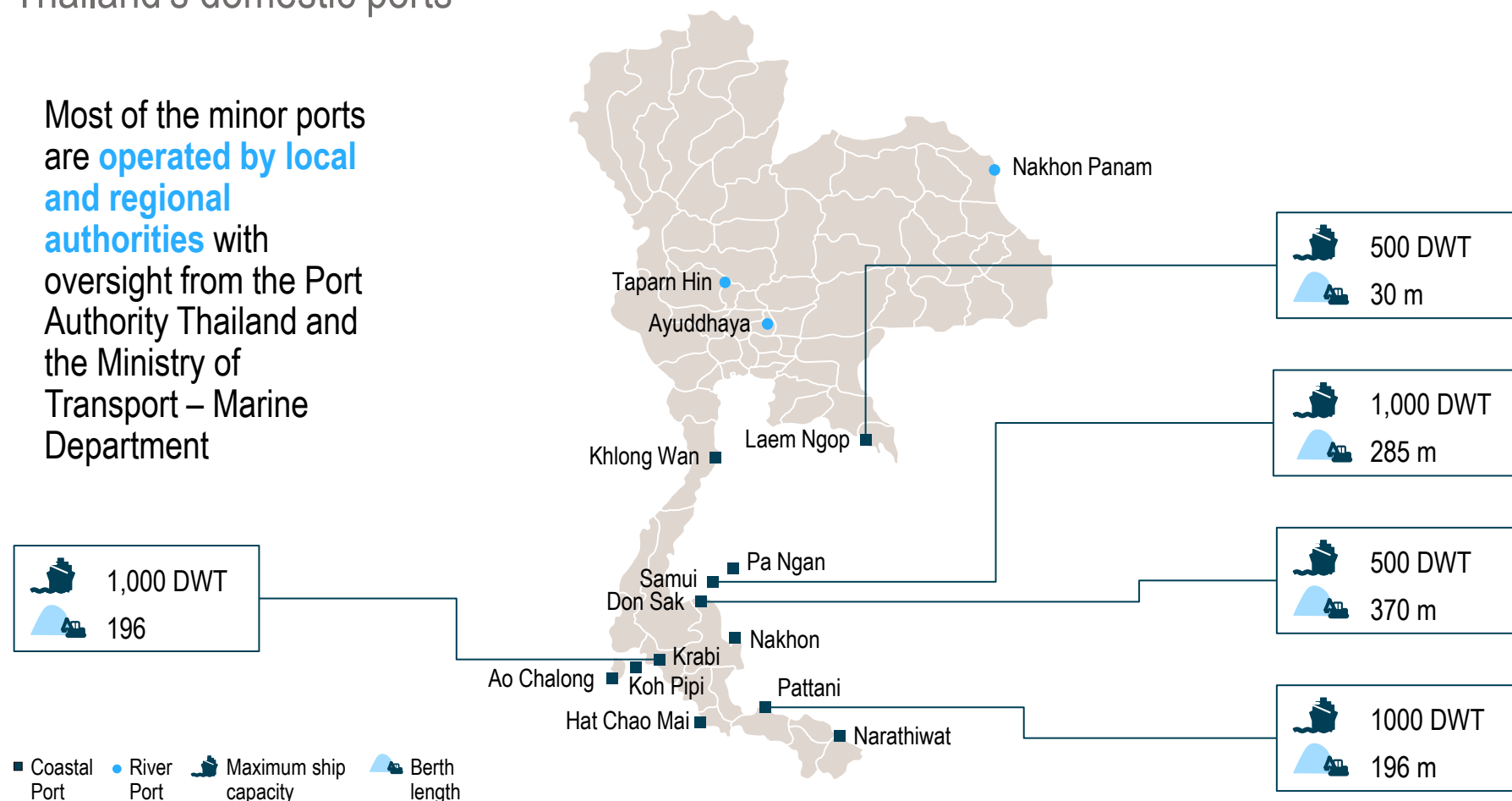
- > Competitiveness of **Thai ports lags leading ports in the region** (Singapore, Malaysia, Hong Kong and China)
- > Its competitiveness has worsened:
 - **Dropped by 7 places since 2007**, to 39th spot (2014)
 - Surpassed even by Philippines (35th in 2014)
- > Certain **peer countries have been steadily improving competitiveness** e.g., China, Vietnam and Malaysia

1) The ranking is measured by ease of arranging competitively priced shipments

There are many smaller coastal and river ports, which are mostly operated by local / regional authorities

Thailand's domestic ports

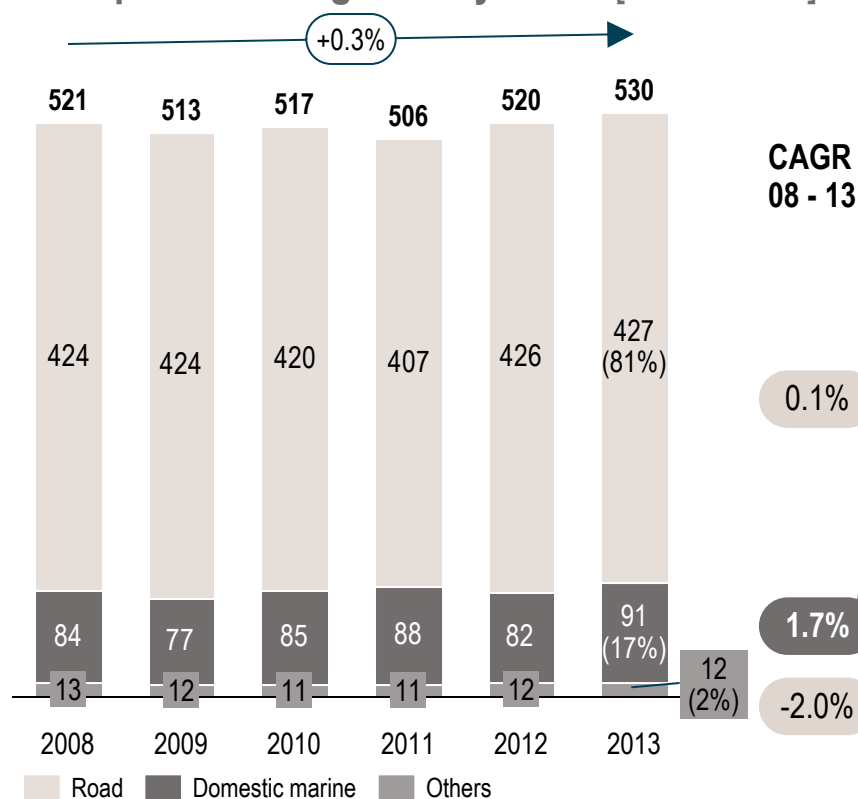
Most of the minor ports are **operated by local and regional authorities** with oversight from the Port Authority Thailand and the Ministry of Transport – Marine Department



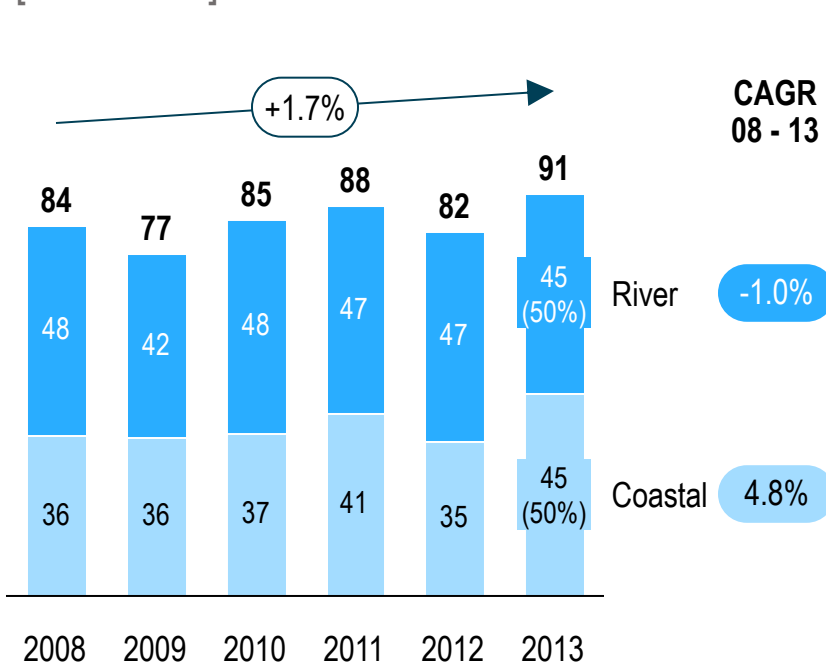
Road remains the dominant mode for domestic transportation of goods in Thailand – Coastal shipping is underdeveloped

Transportation of goods by mode within Thailand

Transportation of goods by mode [mln tonnes]



Domestic marine transportation of goods [mln tonnes]



1) Including rail and air transportation modes

Although development projects in Southern Thailand have been proposed, questions of economic and environmental viability remain

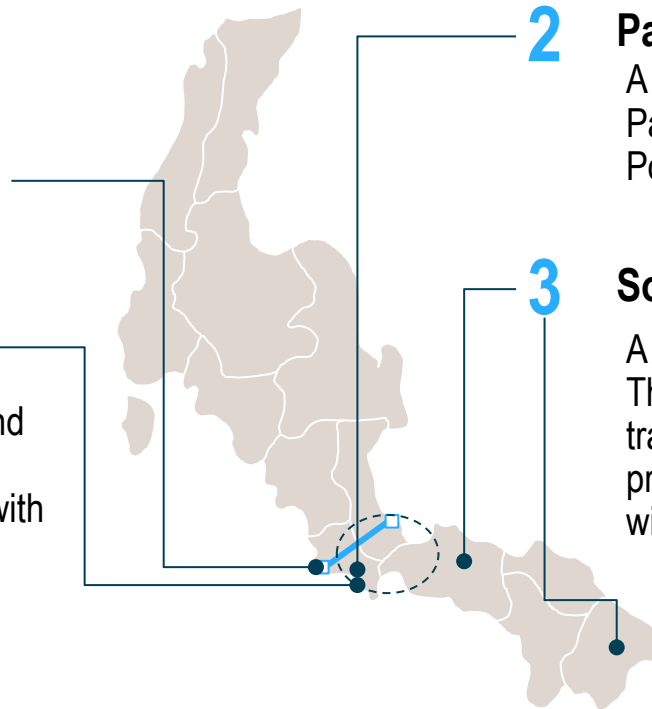
Potential development projects in Southern Thailand

1 Pak Bara Seaport

A deep sea port in Pak Bara that serves as a **gateway** linking Thailand and the Andaman Sea to Europe, the Middle East and Africa

4 Kra Canal

A 102 km long, 400 m wide and > 20 m deep **canal** that would connect the Gulf of Thailand with Andaman Sea; Potentially a wider 2-way maritime passageway than the existing Suez and Panama canals



2 Pak Bara – Songkhla rail link

A 142 km **railway** to connect the Pak Bara port with the Songkhla Port on the Gulf of Thailand

3 Southern SEZ – Landbridge

A **landbridge** that links Gulf of Thailand with the Andaman Sea for transportation of oil and oil-based products; A special economic zone will be established along the corridor

- > Which of these development projects offer the **most benefits** for Thailand?
- > How can these projects be developed in a **environmental sustainable** manner?
- > How can **social issues** be addressed and **local stakeholders** engaged / convinced?

Thailand's port development seems to be hindered by three key factors

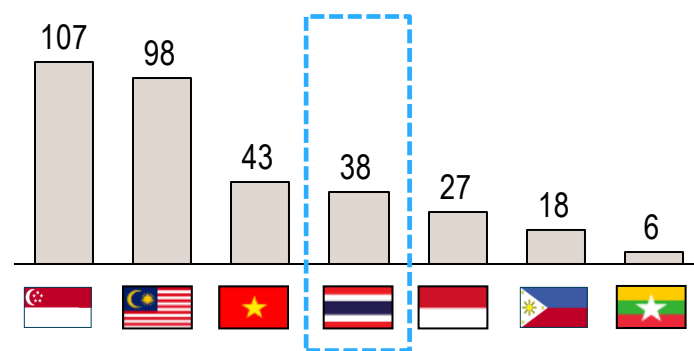
Key obstacles – Preliminary

Infrastructure

> **Lack of nationwide port development plan** resulting in:

- Shortage of port capacity and equipment
- Inadequate infrastructure
- Low degree of inter-modal integration and shipping lines connectivity

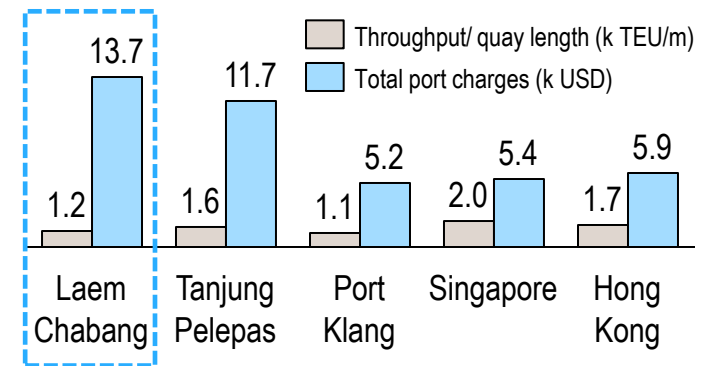
Liner Shipping Connectivity Index, 2015



Policy & management capabilities

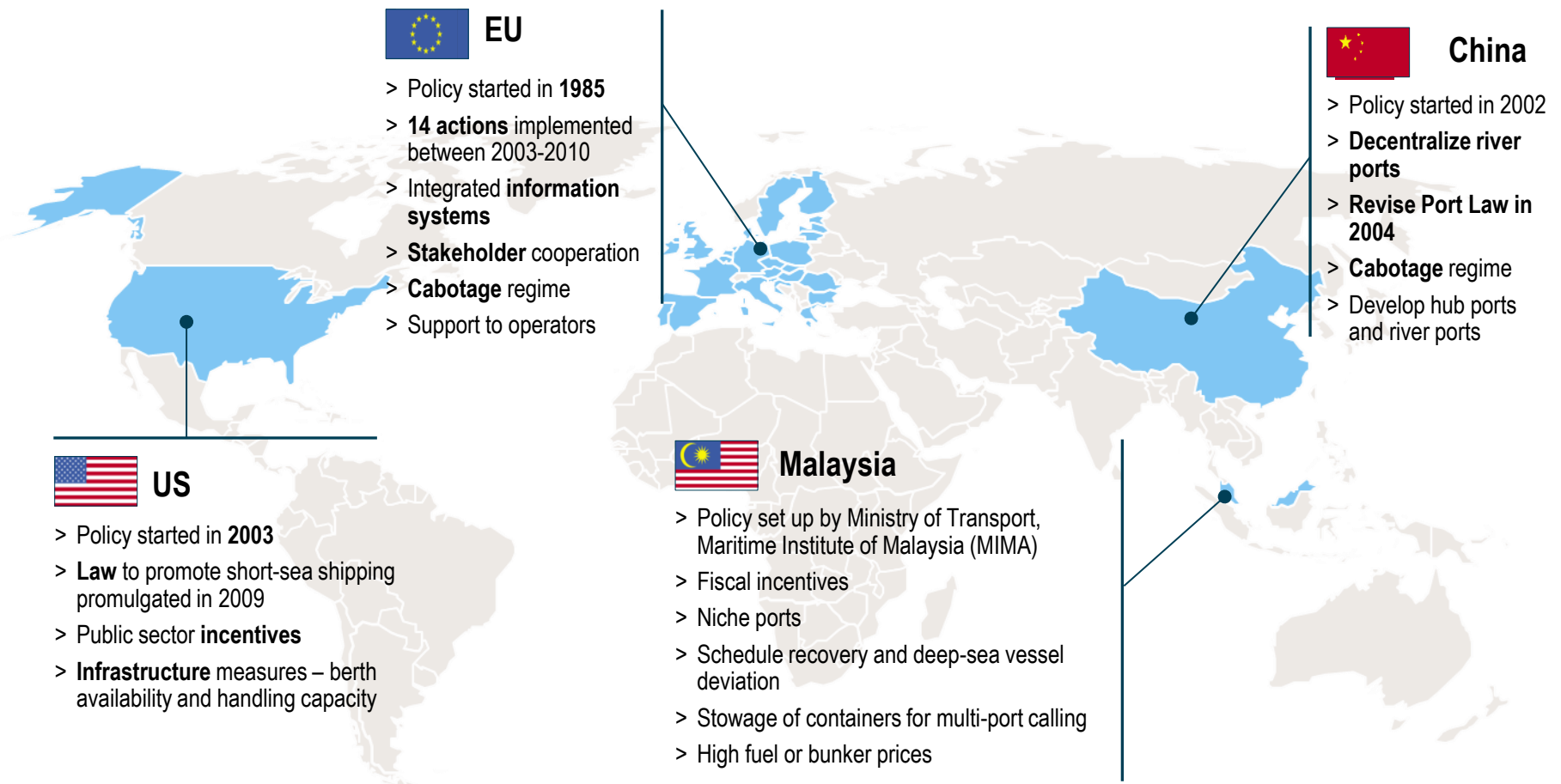
- > **Numerous and redundant regulations and institutions with no centralized authority** resulting in overlapping authority, and inefficient development and operational processes
- > Lack of **operational expertise** and **high port charges**

Port Productivity and Charges



Lessons can be derived from various countries that have introduced policies and specific measures to foster coastal shipping

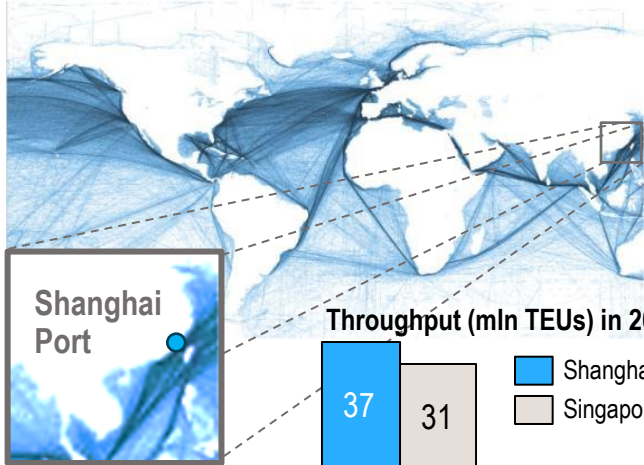
International benchmark



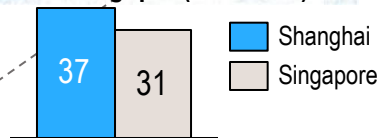
Yangtze River Strategy is a pivotal short sea shipping initiative to serve the rise in industrial activities in inland East China

Port of Shanghai – Yangtze River Strategy

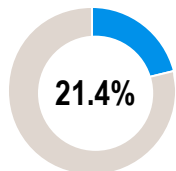
Global Shipping Heatmap



Throughput (mln TEUs) in 2015

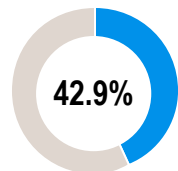


Area (sq km)
2 million



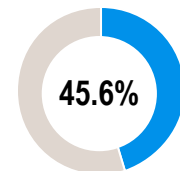
of China total

Population
580 million



of China total

GDP (USD)
4.16 trillion



of China total

Problem / Opportunity

- > Foreign trade slows down in coastal area
- > Industrial activities relocate inland to East China
- > Yangtze River is deemed as a highly strategic development area

Development strategy



Operate: Introduce liner service widely adopted in ocean shipping-to-shipping industry



Control: Acquire controlling stakes in other ship teams, ports & wharfs, logistics parks, warehouses and agents



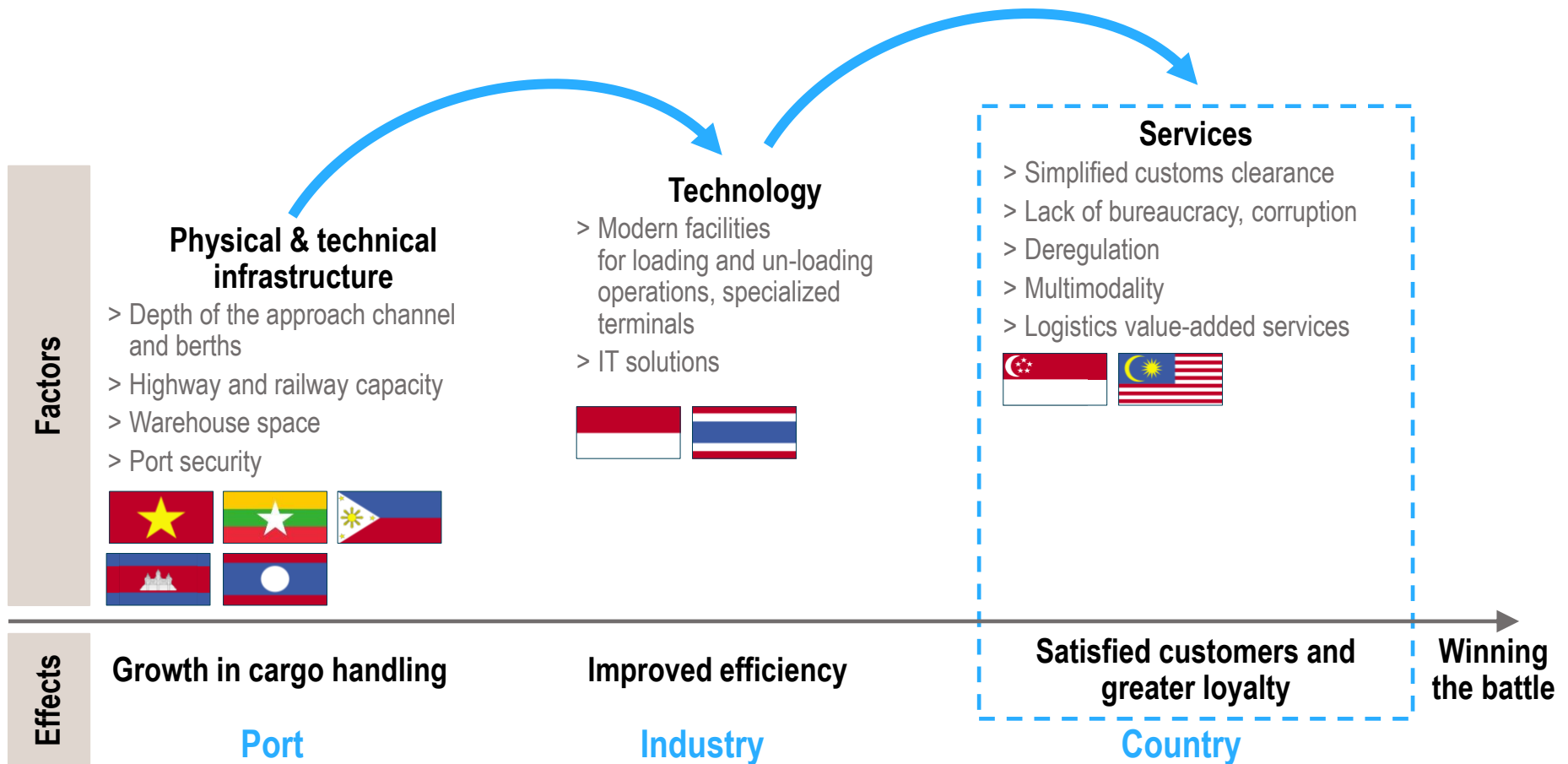
Influence: Facilitate cargo shipping from central and western China to the public sea

E. The way forward – How to develop ports smartly



Indonesia and Thailand both need to improve national strategies and alignment to reduce costing and improve shipping systems

Key factors in winning the seaports battle



An integrated approach to port development strategy formulation is required in order to maximize its economic impact

National strategies

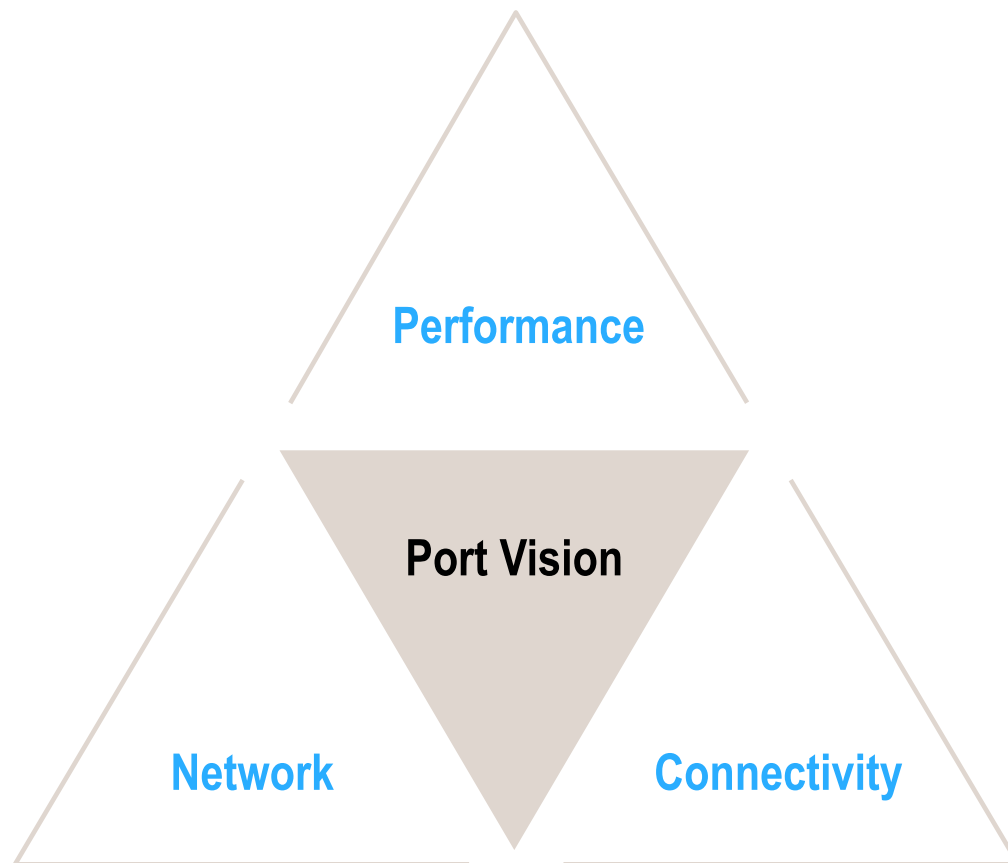
KEY CHALLENGES/ISSUES

- > Which is the best **port management model**, taking local and regional factors into account?
- > What is the best way to **finance** port (re-) development?
- > How to manage and **integrate** ports, inland infrastructure and industry?
- > What are the best locations for **port development**?
- > How to do **port master planning**?
- > How to improve **port performance**?



It should contain solid plans to increase port performance and connectivity and network expansion ...

Port strategy elements



Port performance

- > Improve port facilities
- > Improve the skills of port labors
- > Improve master planning

Increase connectivity

- > Road quality and capacity
- > Train frequency, punctuality and destinations
- > Increase river width and draft
- > Increase connectivity with associated ports

Expanding the network

- > Attract the industry
- > Create the shipping corridor /shipping network
- > Create own network
- > Develop strategic partnerships with other port

...while also assessing all potential opportunities to maximize the port's contribution to national economic development and growth

Turning ports into engines of growth

Illustrative, Non-exhaustive



1 Port related industries

> Develop & attract "heavy" industries, that are directly port-dependent (steel mills, refineries etc)



2 Value addition of exports

> Centre for processing of raw materials / manufactured goods for export



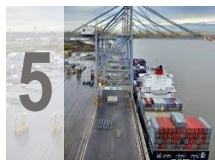
3 Logistics hub

> Provision of full logistics services (storage, packaging, 3PL, 4PL) to optimize global supply chains



4 Transit trade development

> Global hub for transfer of goods en route between origin & destination



5 Exlm gateway for hinterlands

> Key gateway for export & imports for region/nation

Please contact us if you have any further questions



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