

Représenter. Animer. Défendre

ACCEDER
au monde
par les
Ports Français

MAJOR CHANGES IN GLOBAL SHIPPING, MEETING THE DEMAND, IMPLICATIONS FOR PORT OPERATORS

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UNION DES PORTS DE FRANCE - FRENCH PORTS ASSOCIATION

is the trade association representing the French port operators

44 MEMBERS

Most French commerce and fishing sea ports in continental France and overseas departments and territories, irrespective of their legal status (State port, Chamber of Commerce,...). It also includes two major inland ports, Paris and Strasbourg.

32 ASSOCIATED MEMBERS

Maritime Trade associations: Shippers, Freight Forwarders & Logisticians, Shipping Agents, Ship-owners, etc..

3 MAIN MISSIONS

- to represent French ports in labour negotiations with the unions, in close cooperation with the French Cargo Handling Association (UNIM).
- to uphold the interests of French ports towards the French government, the European authorities and the media. UPF is a member of ESPO, the European Sea Ports Organisation.
- to operate networks for good practice sharing, and exchanging experiences in the various activities involved in port operation.





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A FAST-CHANGING ENVIRONMENT

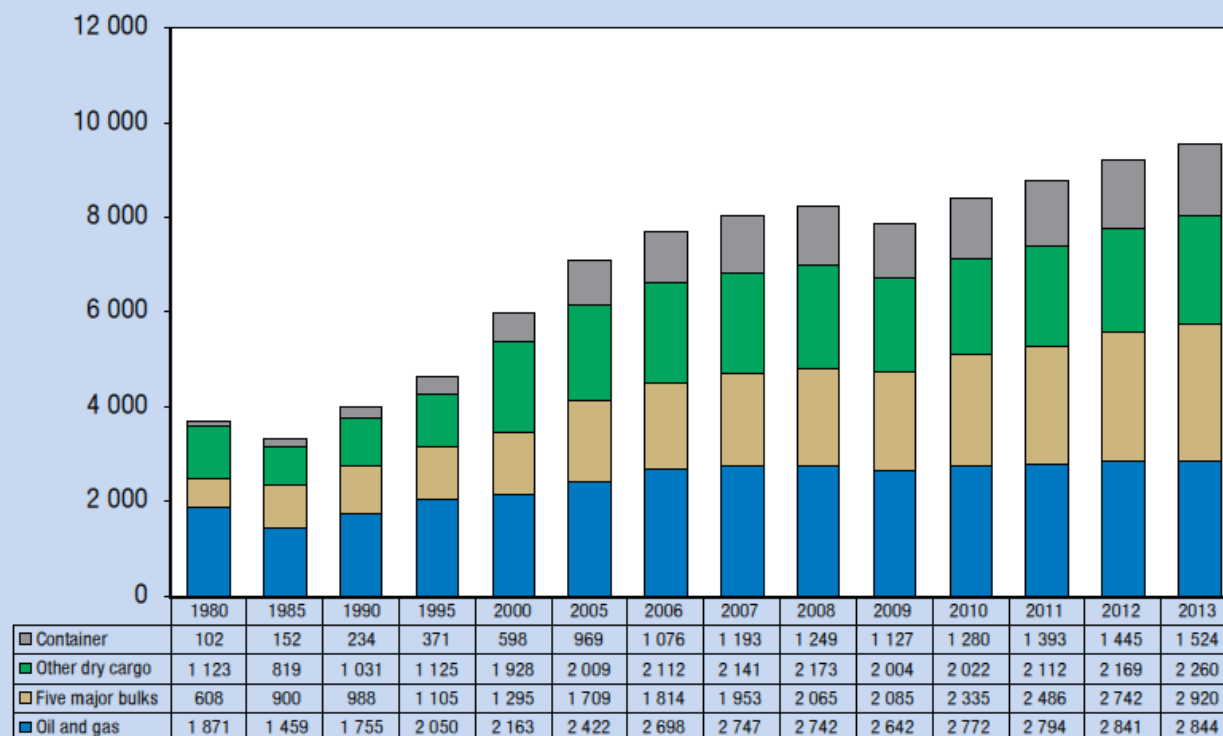


The increased demand in global goods exchanges has supported the development of maritime transportation, especially since the 90's and moreover since China joined the WTO in 2001.

More than 90% of all goods being transported by sea, the total seaborne capacity has more than doubled since 1990, especially in the bulk- and container-carriers segments.



Figure 1.2. International seaborne trade, selected years (millions of tons loaded)



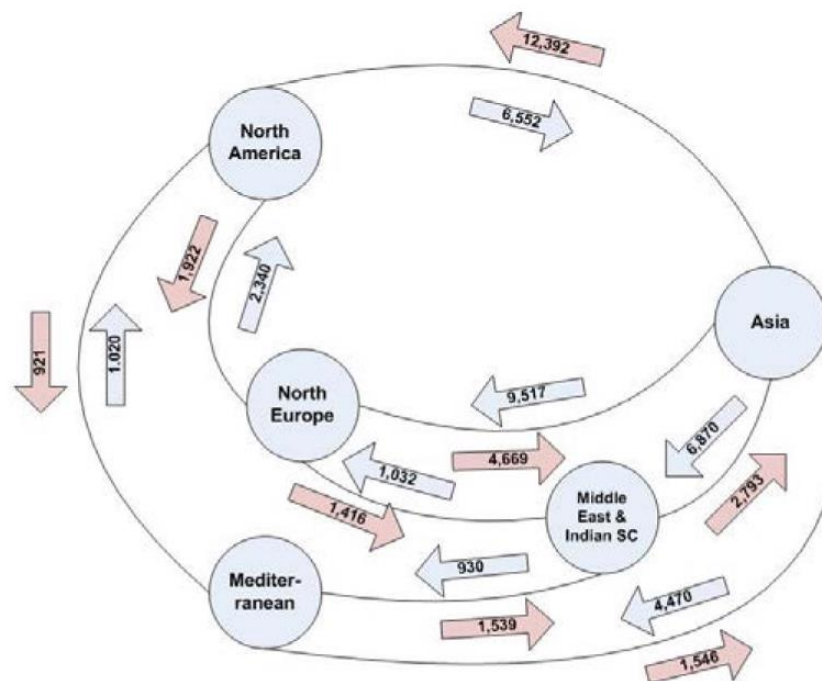
Source: UNCTAD *Review of Maritime Transport*, various issues. For 2006–2013, the breakdown by type of cargo is based on Clarkson Research Services, *Shipping Review and Outlook*, various issues.



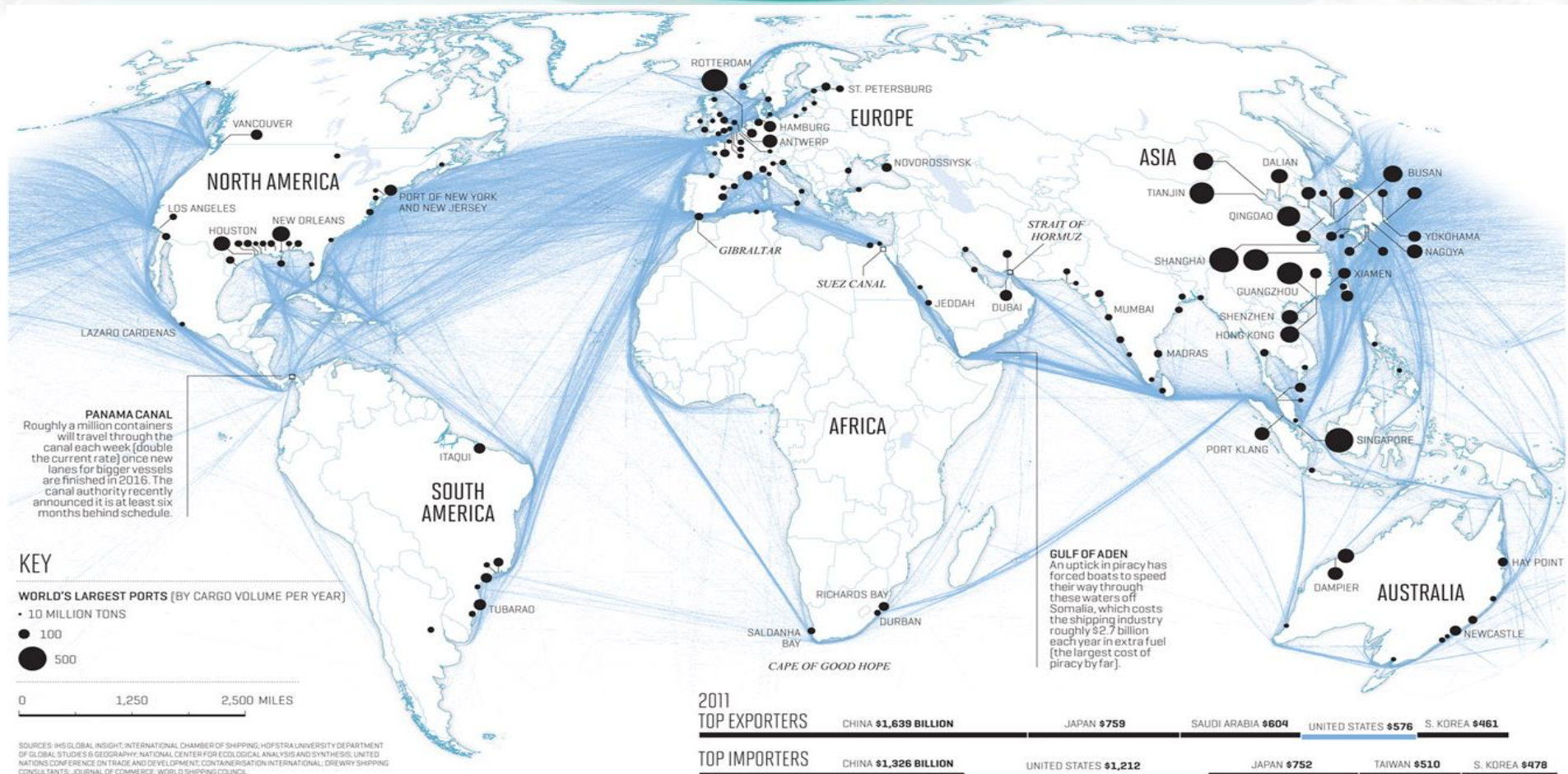
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ALL WORLD-WIDE TRADE ROUTES ARE CONCERNED

Figure 6.1. Interregional container flows, 2011 (Thousands of TEUs)



Source: UNCTAD secretariat, based on data provided by Lloyd's List Containerisation International, various issues.

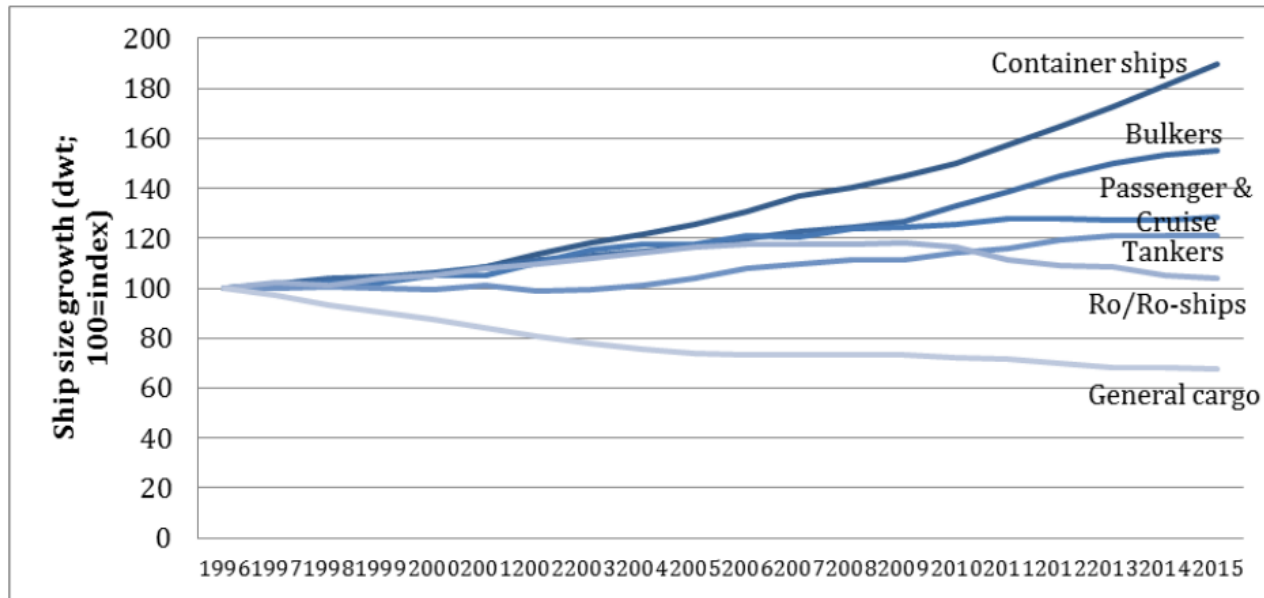


A fast-changing environment

- Such demand (and advanced technology) resulted in much larger ships being built:
 - New ships :
 - Increased length (400m), width (60m), draft (17m), air draft,
(container-carriers, bulk carriers, cruise ships,..)
 - Induces Competitiveness:
 - a decreasing number of calls per rotation
-> increased ports competition, feeder threat,..
 - A higher handling productivity, in order to reduce the time spent at port.



Figure 1.2. Ship size development of various ship types 1996-2015



**Container ships
are the fastest
and largest
growing type of
vessels**

Source: own elaborations based on Clarkson Research Services



Economies of Scale promote Containership (R)Evolution

The increase in vessels size is an international reality, as a function of efficiency gains



Type	Length x breadth x draft (m)	Capacity
Panamax (1980)	250 x 32 x 12.5	3,000 – 3,400 TEU
Panamax Max (1985)	290 x 32 x 12.5	3,400 – 4,500 TEU
Post Panamax (1988)	285 x 40 x 13	4,000 – 5,000 TEU
Post Panamax Plus (2000)	300 x 43 x 14.5	6,000 – 8,000 TEU
New Panamax (2004)	366 x 49 x 15.2	12,500 TEU
Post New Panamax (2006)	397 x 56 x 15.5	15,000 TEU
Triple E (2013)	400 x 59 x 15.5	18,000 TEU

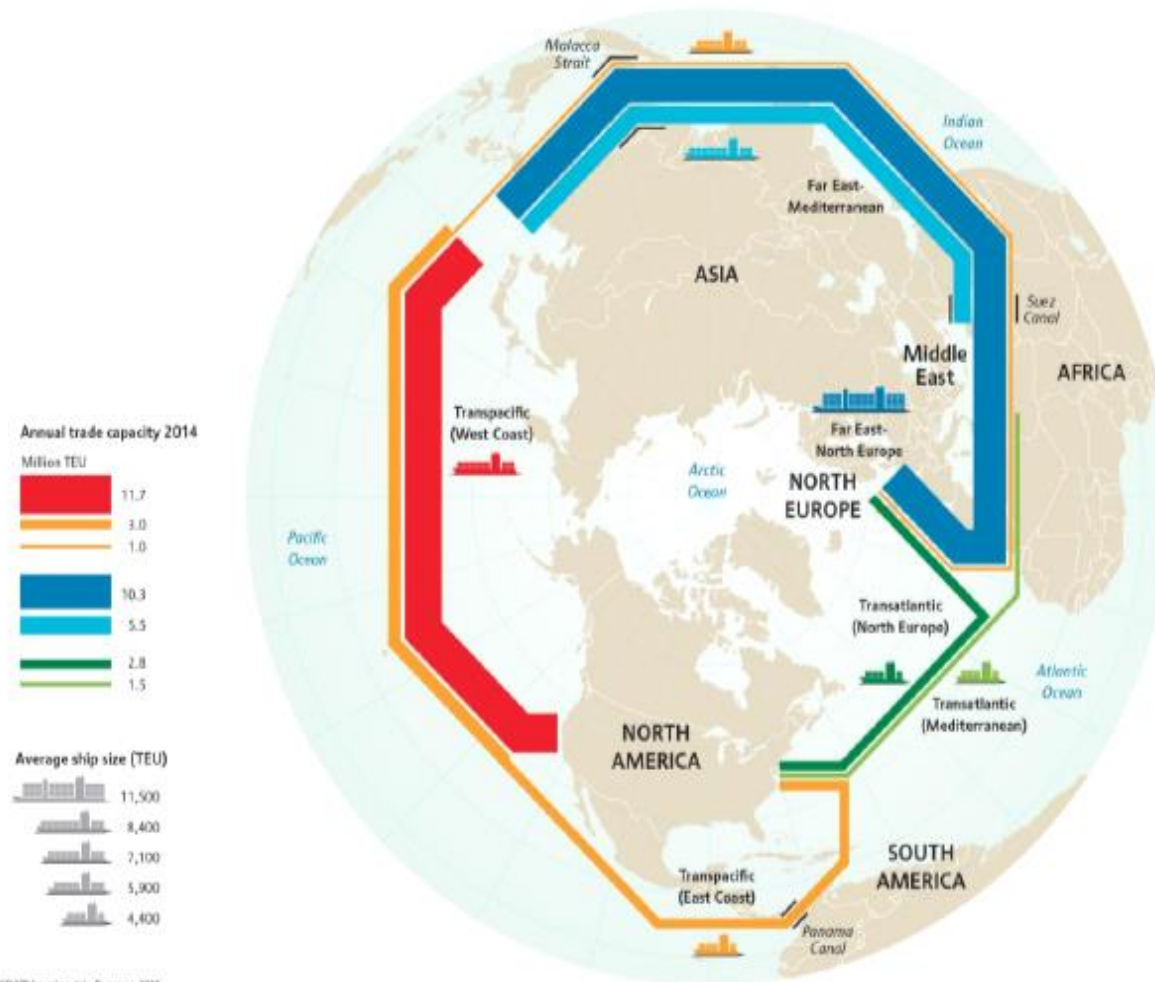
100 m



Over a 6 years period, container ships have grown 100 m + in length

ULCCs size fits one trade route only, Asia-Europe. The subsequent « cascading » can induce over-dimensionning on the other routes

Figure 3.1. Ship size on main trade lanes in 2014



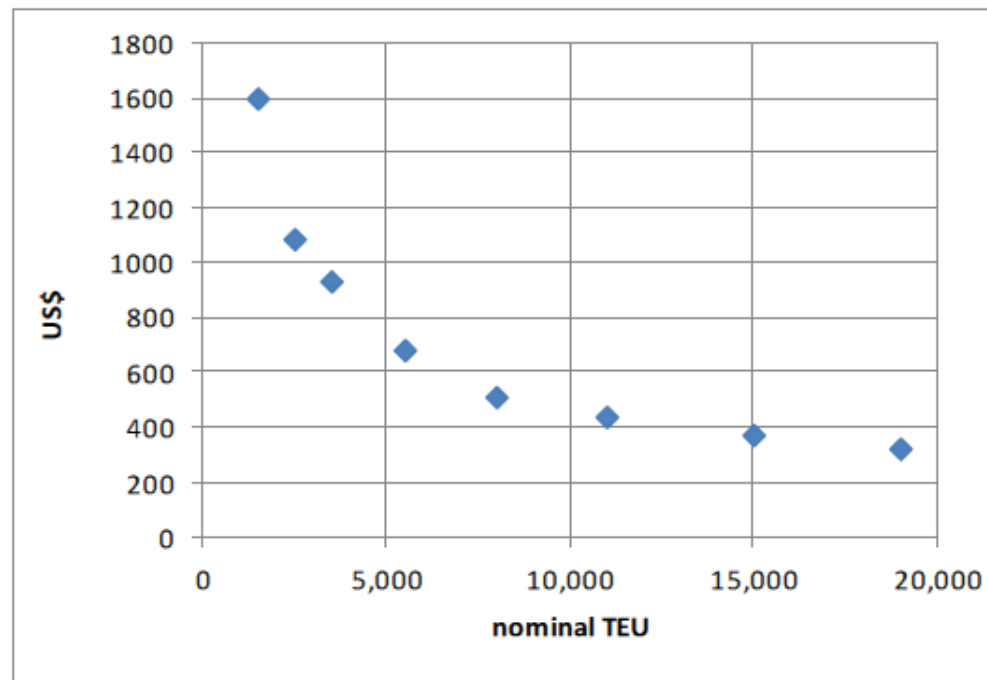
Cost-savings

- Not only do these ships enable ship-owners to meet the increased demand, they also enable a huge decrease in transportation costs, supposedly benefiting the end-user.

Cost-savings

- The purchase of high-capacity vessels generates reduced costs per slot:
from 14,000 US\$ / slot for a 3,600 teu to 7,000 US\$ on a 19,000 teu vessel)
- On the operations side, a 2.5 x capacity increase generates over 30% decrease in slot operational costs.

Figure 2.2. Estimated annual operation cost per nominal TEU – assuming 85 % utilization



Source: Own elaborations, based on Drewry Maritime Research and own estimates.
— OECD international Transport Forum

ULCCs Impact

- Those vessels became even more competitive since the 2008 crisis, when slow-steaming was implemented. To such an extent that the shipping lines who do not have such large vessels cannot compete anymore with those who have them.
- They must either order similar vessels to keep pace, or withdraw from the main routes.
- Very few having made the second decision, the global order-book and available capacity on the seas have never been so high.

A fast-changing environment

- As a result of larger ships being introduced, the traditional maritimes routes have had to adapt in order to cope with demand.
- Hence the following changes:
 - Suez Canal extension (8B\$, June '15)
 - Panama Canal enlargement (9 years, due April '16)
 - Nicaragua Canal implementation (2020?)
 - Asia-Europe North route?
 - North Atlantic route ?

Etc..



NEW ROUTES

SUEZ CANAL



The first ships have crossed the new Suez Canal on July 25th, 2015, on a test prior to its official inauguration on August 6th. The works involved lasted one year and required an investment of about 8 billion US.

Source: Le Monde



NEW ROUTES

PANAMA CANAL

The enlarged Panama canal is due to be in operations in April 2016, after 9 years of works.



ARNULFO FRANCO/AP

Mise en eau de la nouvelle section du canal de Panama, le 22 juin 2015





NEW ROUTES

NICARAGUA CANAL



(source : lavozdelsandinismo.com)

Daniel Ortega, president of Nicaragua, and Wang Jing, Chairman of HKND, on June 14th, 2013, in Managua, signing the contract for the construction of "Nicaragua Grand Inter-Oceanic Canal". (Source photo : hknd-group.com)





How do ports address this change in paradigm ?

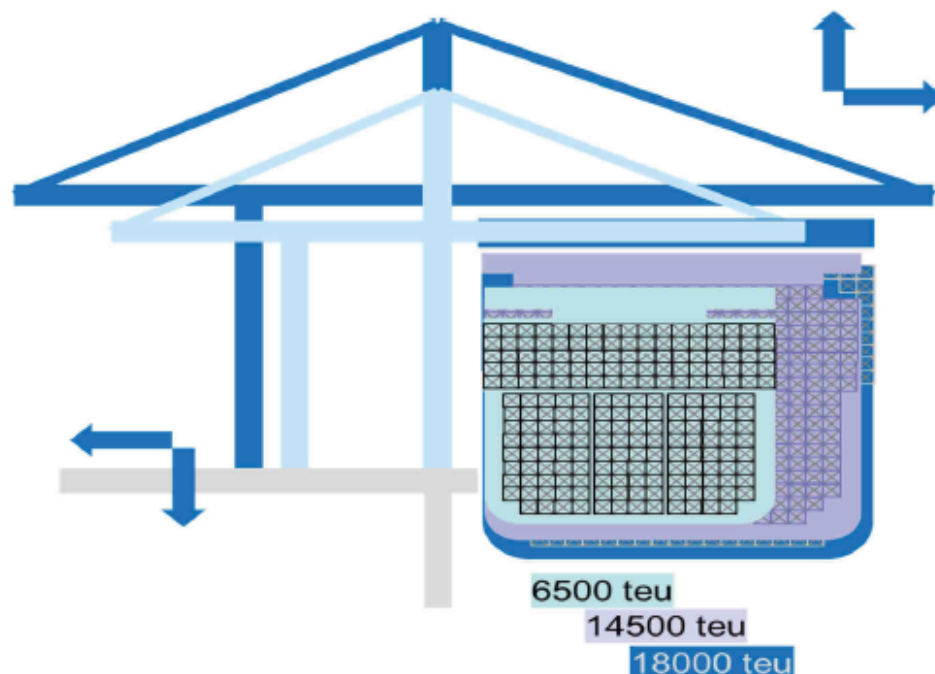
a) On the quay-side:

Mostly by investing in new infrastructures and equipment:

- Container terminals : quay length, draft, new cranes (more cranes, more powerful), stacking surface increases,..
- Cruise sector : cruise terminals, commercial zones,..
- Deeper dredging, larger tugs,
- Larger ship repair facilities,..

Le défi du gigantisme

- ▶ Méga navires = méga grues
- ▶ Longueur & profondeur du quai
- ▶ Tirant d'air *
- ▶ Portée (23) *
- ▶ Capacité intermodale
- ▶ Agilité opérationnelle



Inventaire en

Super post-Panamax gantries

2000

20

2014

1,160

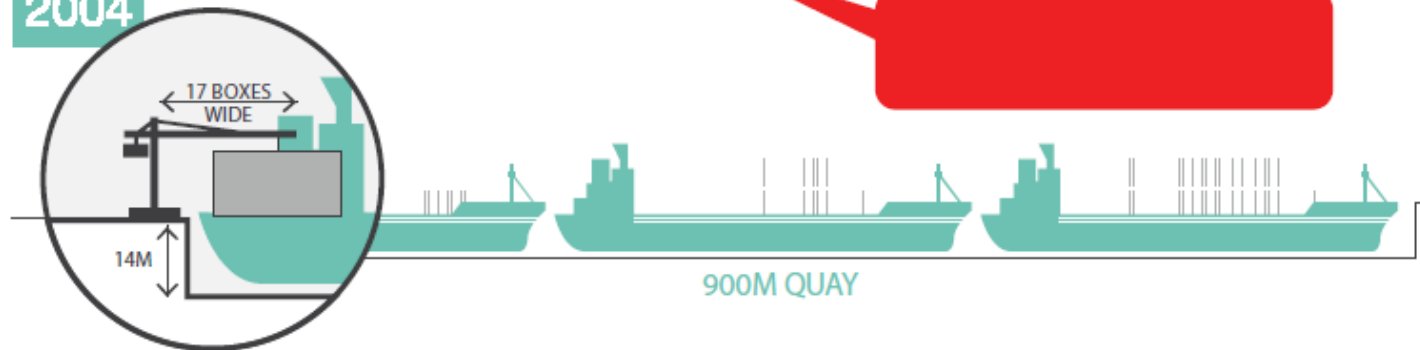
2020

>2,000 ?

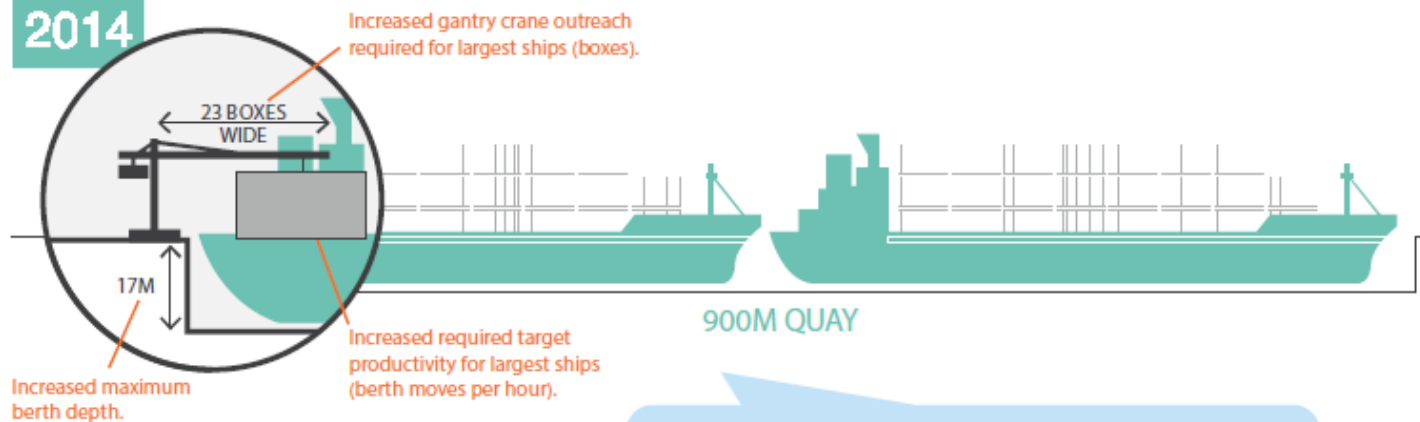
Equipment et infrastructure

Des navires plus grands – des équipements portuaires plus grands

2004



2014

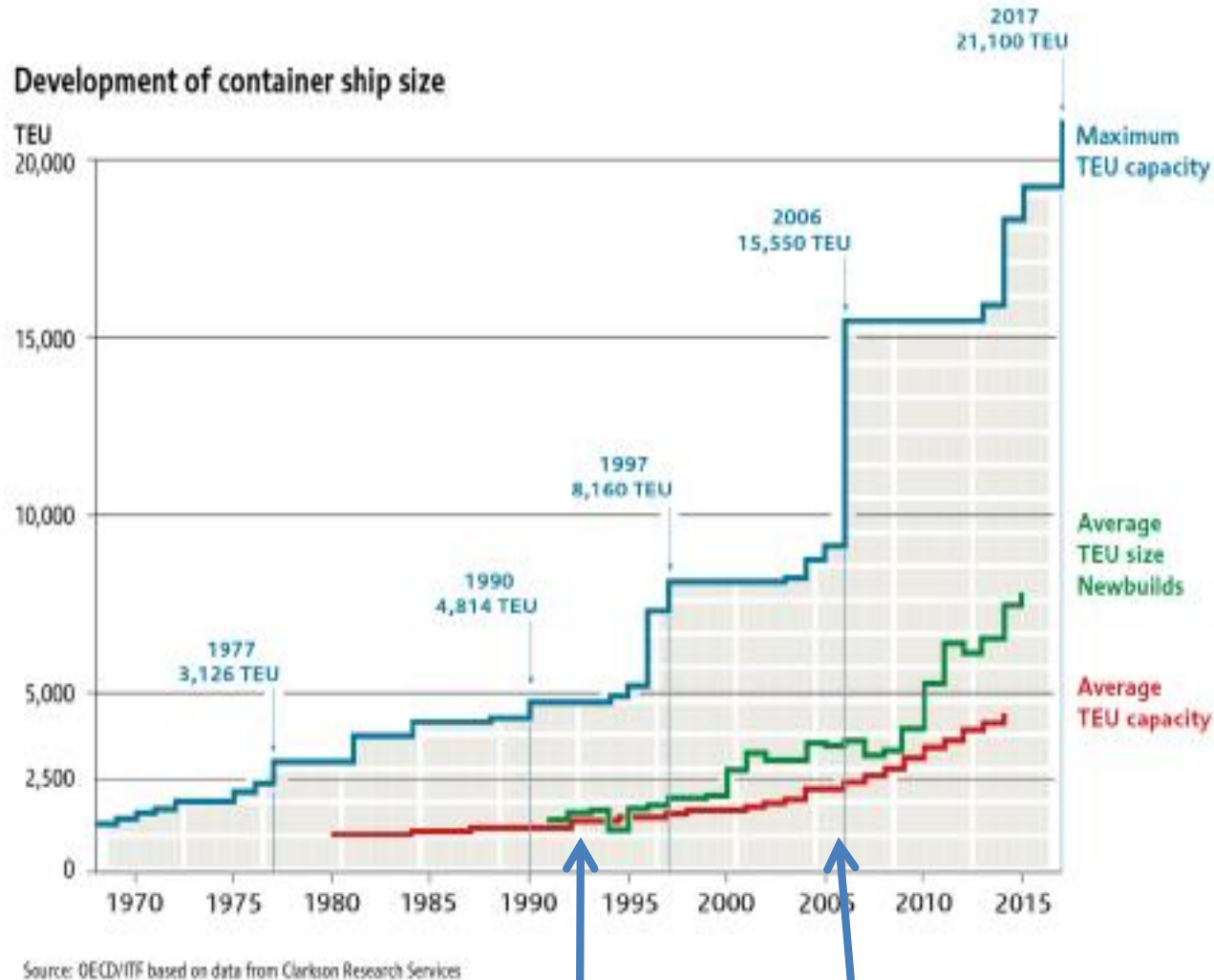


New cranes, digging, reinforcing quay-sides, dredging, stacking,...

Les Lignes sont-elles prêtes à payer plus pour ces améliorations ?

But Ship-owners and ports have different time scales

- Port infrastructure conception and subsequent realization require 5 times more time than for a vessel
- A port infrastructure life-time is more than 5 times that of a ship.



Port 2000 first studies

Port 2000 first quays



SERVICE TO VESSELS

PORT SERVICES HAVE INVESTED IN NEW EQUIPMENTS ADAPTED TO NEW SHIPS' DIMENSIONS



Tugs engine power has been multiplied X 4



Consequences for marine infrastructures and ports :

- Accelerated infrastructures obsolescence
- Accelerated equipments obsolescence
- Investissements not always compensated by a significant traffic increase (larger ships, same volume)
- Less calls but a higher unit handling volume => a more erratic labour organisation along the week
- High volumes per call => jammed land accesses

Intensité de l'escale



ECT: 10,557 containers sur le Thalassa Pistis 28/10/2014



16 feeders



50 barges



2,500 trucks



30 trains



Numerous non-port infrastructures are also impacted world-wide:



The OOCL Kobe sailing under the Bayonne Bridge, whose roadway will soon be raised to make way for even larger post-Panamax vessels.

In New York city, 1.3 billion USD spent elevating the Bayonne Bridge, previously limiting to 8,000 teu the maximum container-vessels size (air draft issue).

How do ports address this change in paradigm ?

- b) other port moves:
 - Increasing the hinterland, improving land accesses,
 - Administrative facilitation : One-stop Shopping , CCS implementation,..
 - Environment : developping alternative modes' (river and rail transportation) market shares, LNG bunkering, cold-ironing, ESI trophies,..



The challenges going forward :

The example of the Panama canal

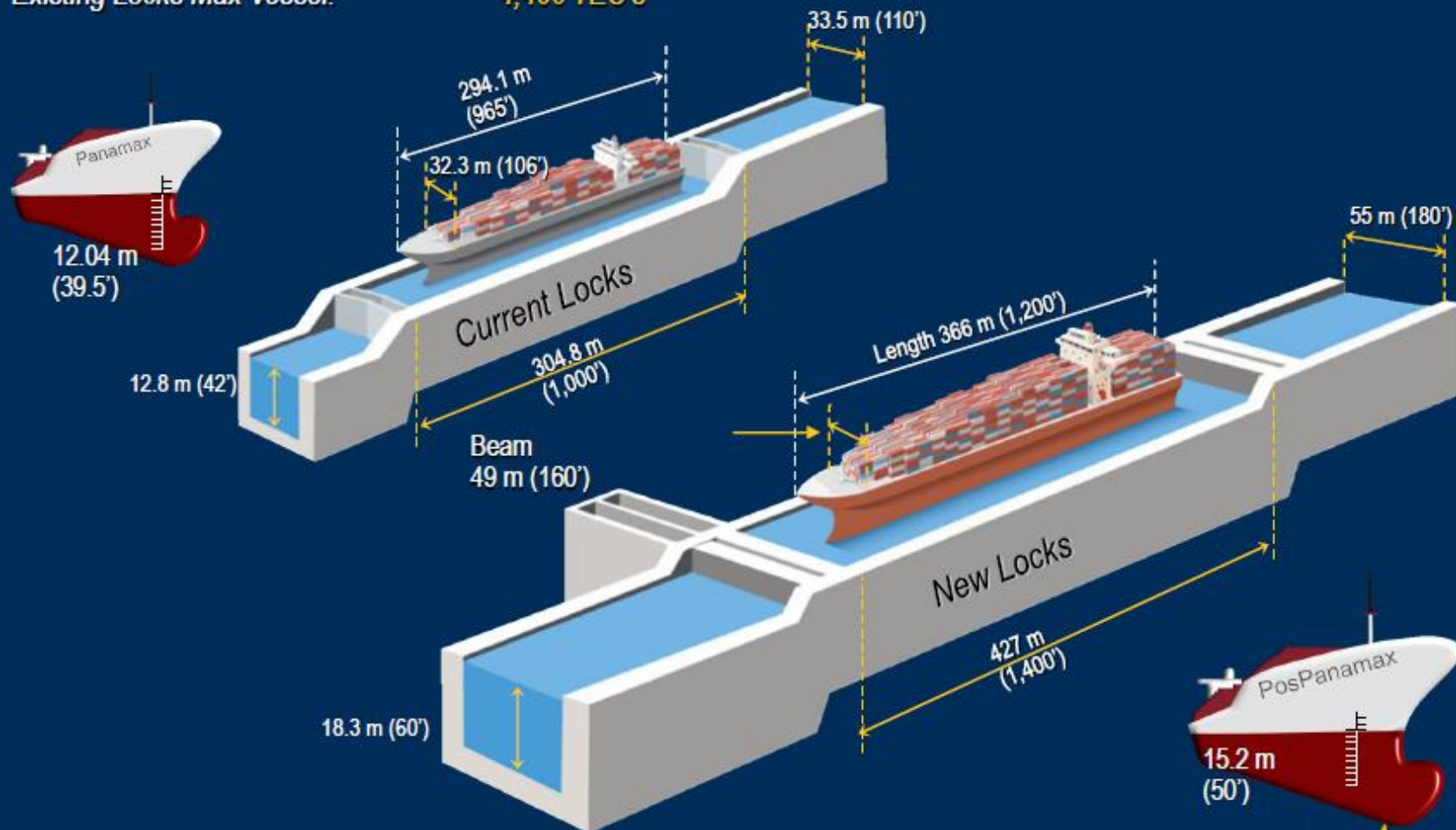


Panama Canal
Expansion Impact

Dimensions of Locks and Vessels

Existing Locks Max Vessel:

4,400 TEU's



New Locks Max Vessel Size:

13,000 – 14,000 TEU's



Neopanamax Vessels for New Markets at the Expanded Canal



Container Vessels

13,000 to 14,000 TEU

New volumes from:

- Latin America

Market Recovery from:

- West Coast United States
- Suez Canal



Dry Bulk

Up to 170,000 DWT

- Coal from Colombia
- Metallurgical coal from Vancouver
- Iron Ore from Brazil in Minicapesize (85,000-120,000 DWT)



Liquid Bulk

Up to 150,000 DWT

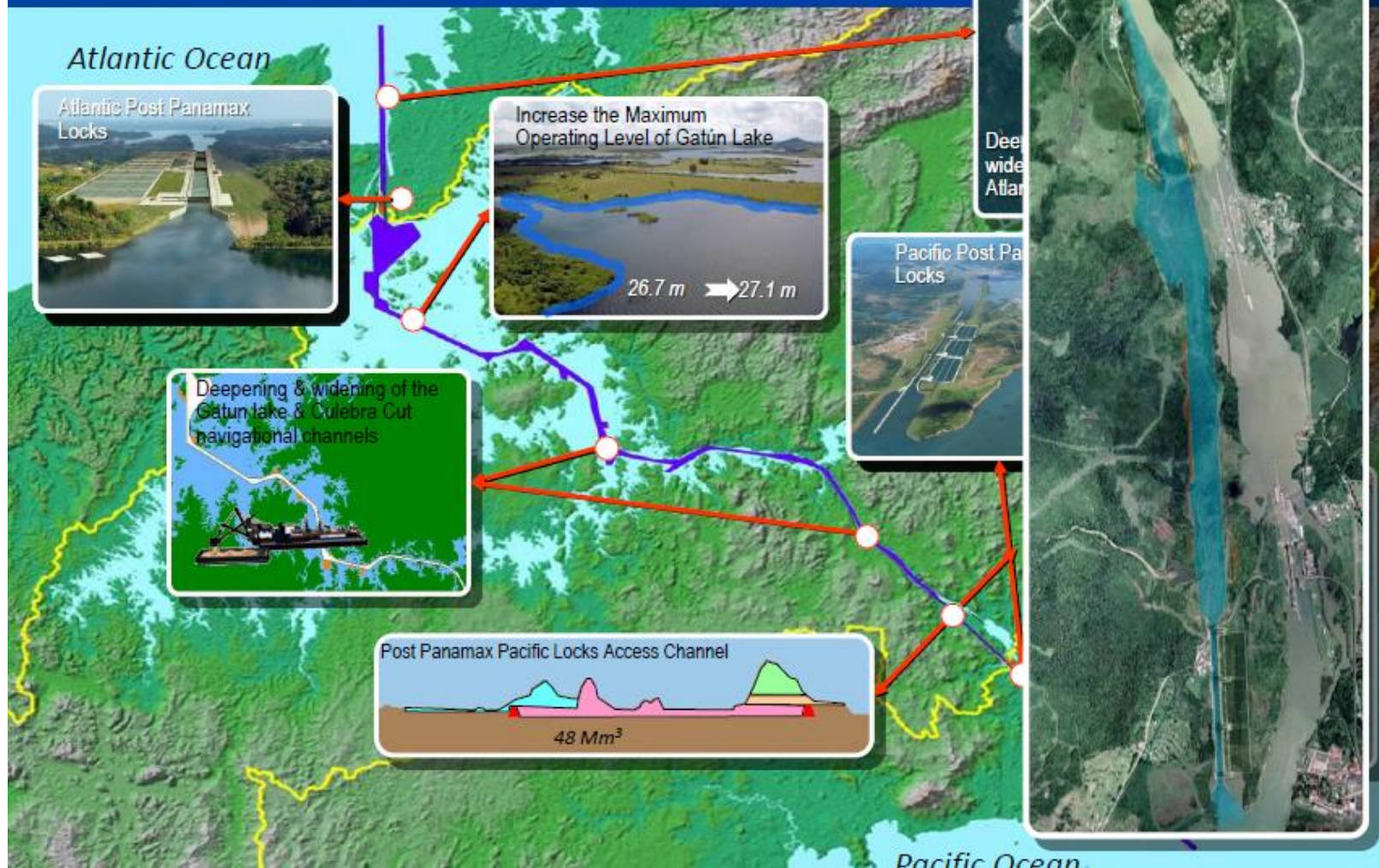
- Tankers
- Petroleum Products



LNG/LPG

- LNG Up to 177,000m³
and VLGC

Expansion Program Components



The Panama Canal

- 
- An aerial photograph of the Panama Canal. The image shows the canal's locks, which are large concrete structures with multiple gates. A large cargo ship is visible in the canal, moving towards the locks. The surrounding landscape is a mix of green fields, some industrial areas with buildings and parking lots, and a road. In the background, there are more locks and a bridge. The sky is clear and blue.
- Gamechanger?
 - Shifting International trade routes?

Questions - Concerns

- Which consequences for those harbours in the Pacific and Carraibbean areas that cannot accomodate 13,000 teu ships ?
- Will they become feederized ports? Is feederization a threat ? Will it impact door-to-door transportation costs, and thus the cost of living, and delays ?
- Or on the contrary may massified main leg absorb trans-shipment costs ?

Questions - Concerns

- Up to which level should harbours invest in upgrading their facilities (not necessarily ULCCs) ? Investing is necessary, but not necessarily sufficient, as shipping lines do not commit themselves.
- Will there still be room for direct services with current ships size ?
- Local example: what should Tahiti do ?

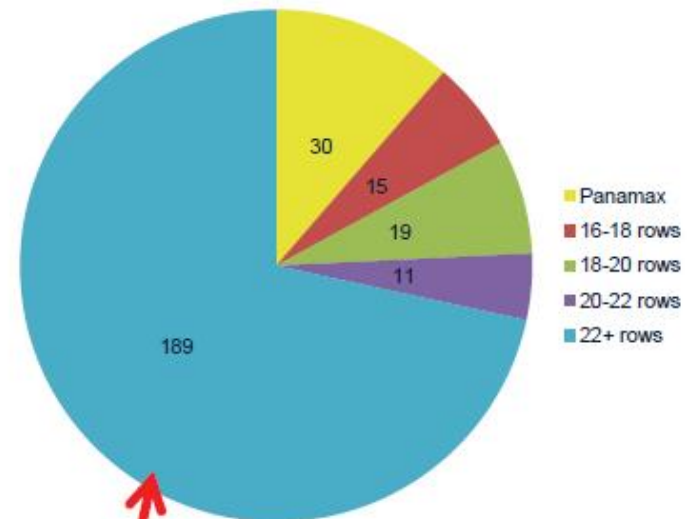
« C'est aux ports de supporter les coûts induits par les mega-ships »

APMT CEO says *ports must bear costs of big ships*

In an exclusive interview with *CM*, the CEO of APM Terminals Kim Fejfer, has said that *it is up to container terminals and port operators to deal with the problems caused by the growing size of ships and alliance agreements*. When asked if shipping lines should be more considerate about the problems mega-ships and alliances can cause, he said these changes are “a natural evolution of ship design and business goals. Port operators need to keep pace with industry changes”.



Carnet de commande de portiques, par portée (2014)



Source: Drewry Maritime Research

8 à 10 million US\$ la pièce



**Thank you for your attention,
Time for discussion**

