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UNCTAD Review of Maritime Transport 2020 and key trends in ports and shipping, in times of the COVID-19 pandemic

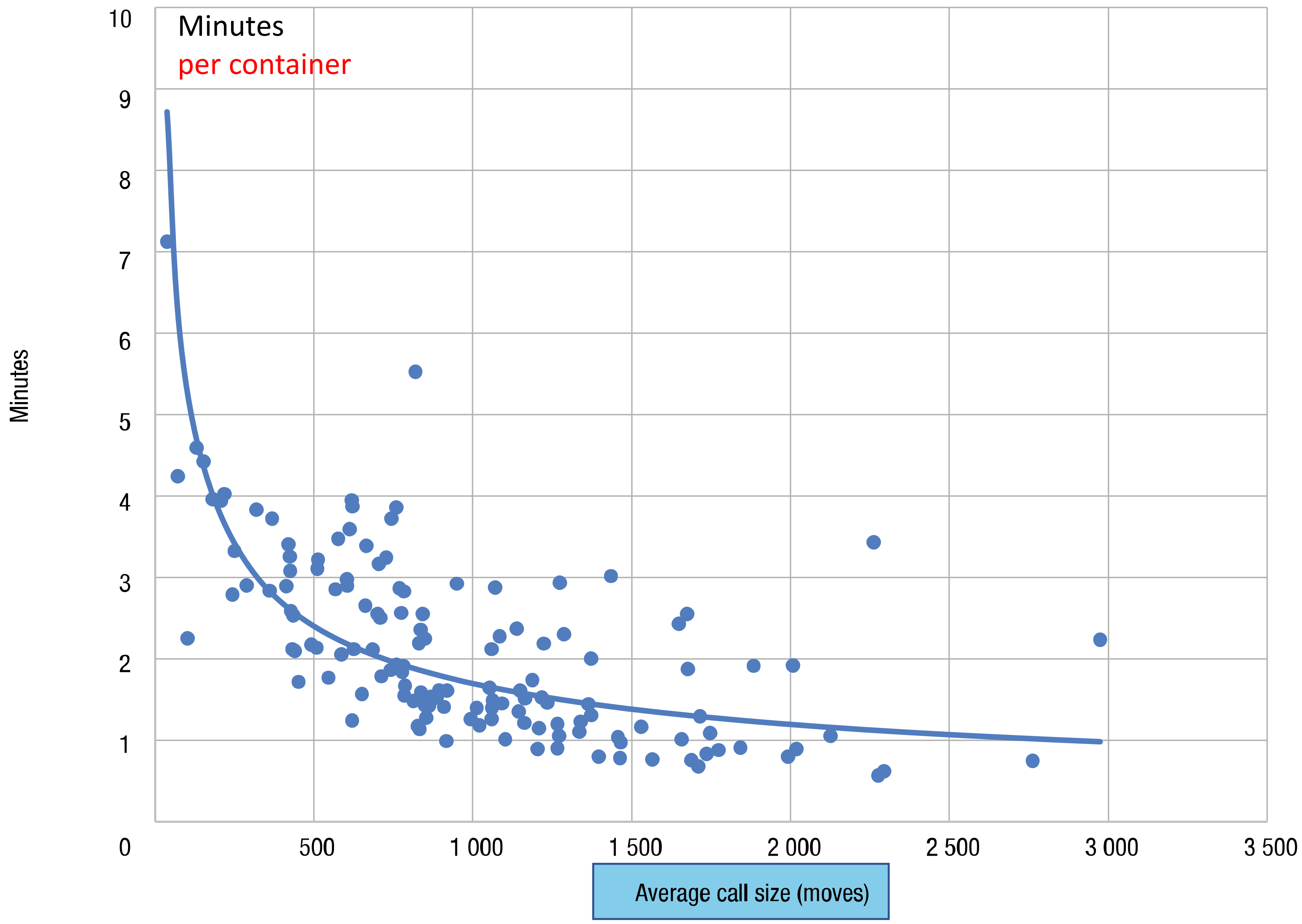
- Key Performance Indicators

Jan.Hoffmann@UN.org
Mark.Assaf@UN.org

Short courses on key international economic and development issues for delegates from permanent missions to the United Nations Office at Geneva and the World Trade Organization

First semester 2021

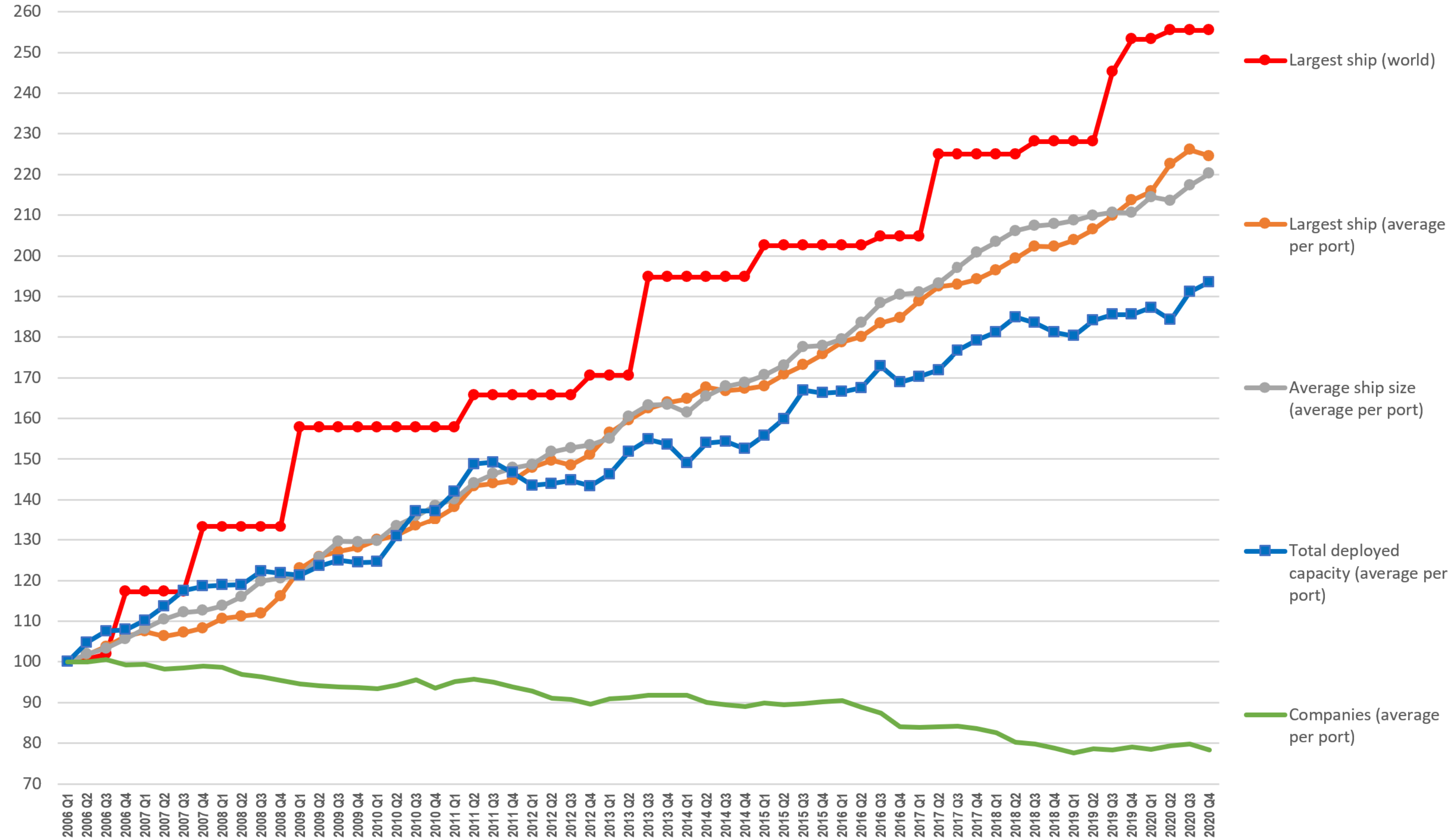
Figure 3.16 Minutes in port per container move and average call size, 2019



Trends in containership sizes - Q1 2006 to Q4 2020

Q1 2006 = 100

Source: MDST data provided to UNCTAD



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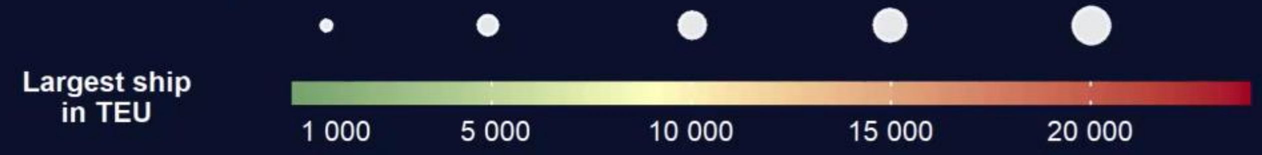
MDS Transmodal

Where do the largest container ships call?

Size (TEU) of the largest ships deployed in each port. First quarter 2006 to fourth quarter 2020.



Source: UNCTAD based on MDS Transmodal, Containership Databank 2020 - visualized by Julian Hoffmann

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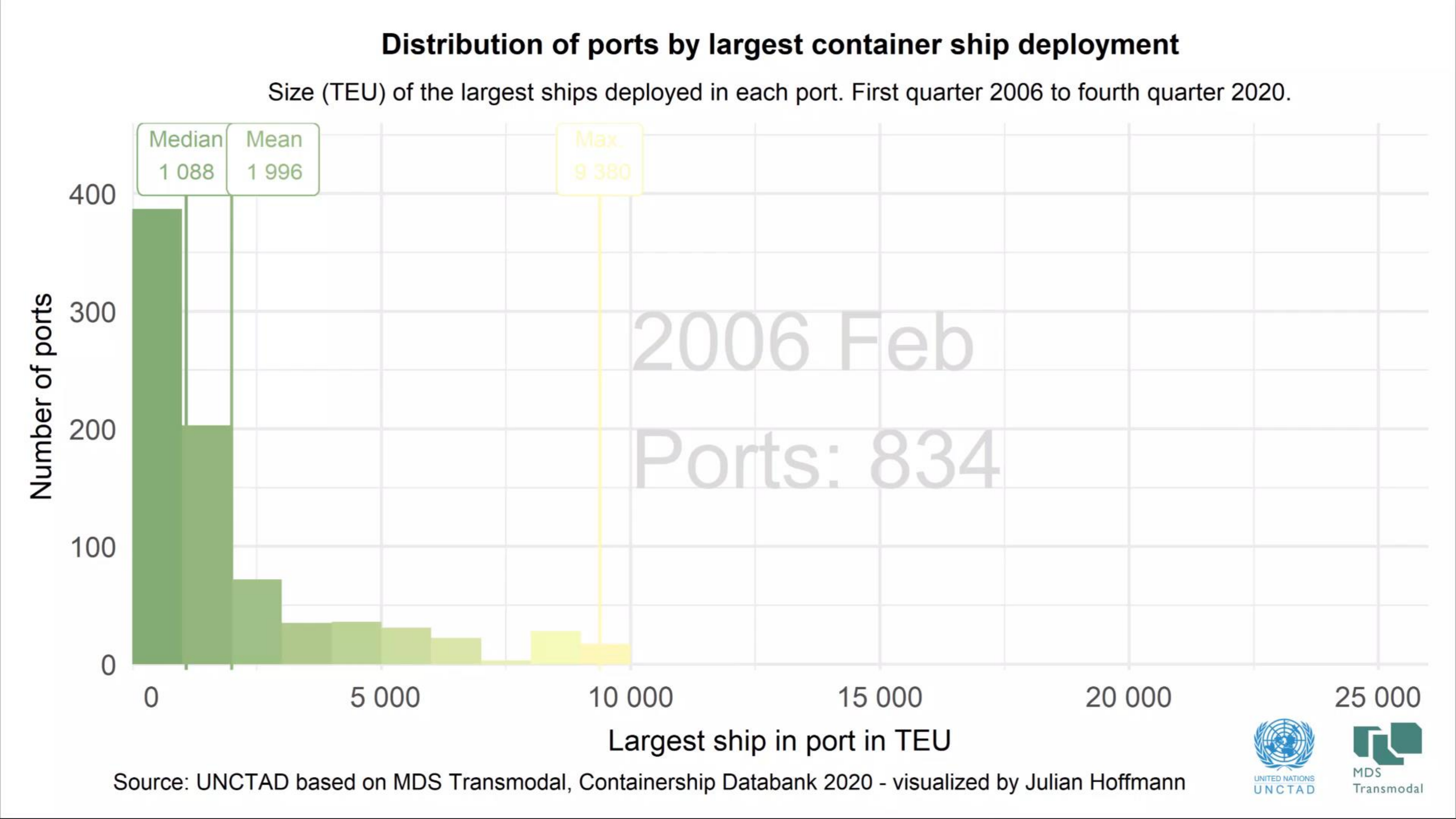

Distribution of ports by largest container ship deployment
Size (TEU) of the largest ships deployed in each port. First quarter 2006 to fourth quarter 2020.
Median 1 088
Mean 1 996
Max. 9 380
2006 Feb
Ports: 834
Number of ports
400
300
200
100
0
0
5 000
10 000
15 000
20 000
25 000
Largest ship in port in TEU
Source: UNCTAD based on MDS Transmodal, Containership Databank 2020 - visualized by Julian Hoffmann
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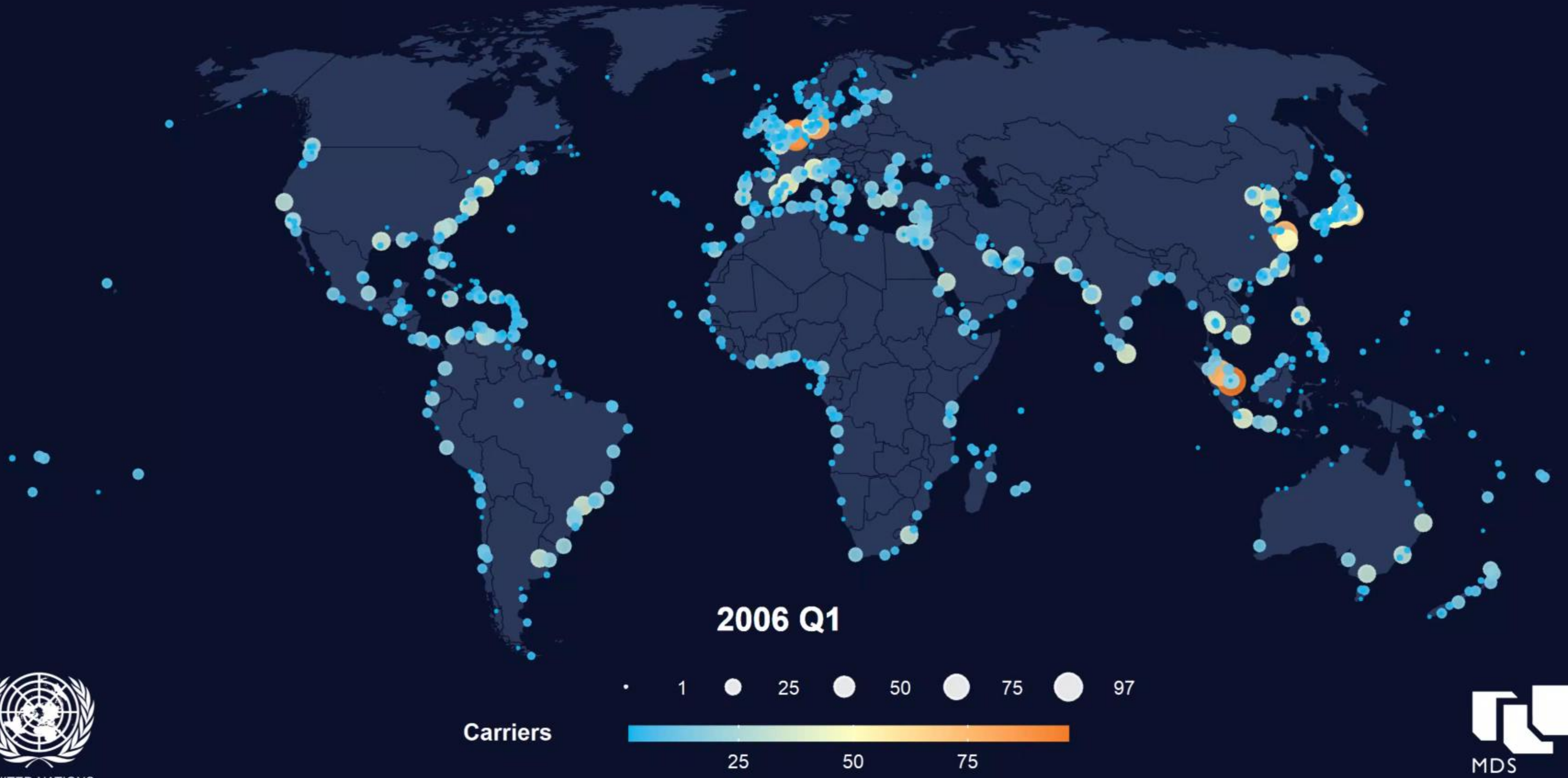
How many carriers do ports have?

Number of carriers in each port from first quarter 2006 to fourth quarter 2020.



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Source: UNCTAD based on MDS Transmodal, Containership Databank 2020 - visualized by Julian Hoffmann

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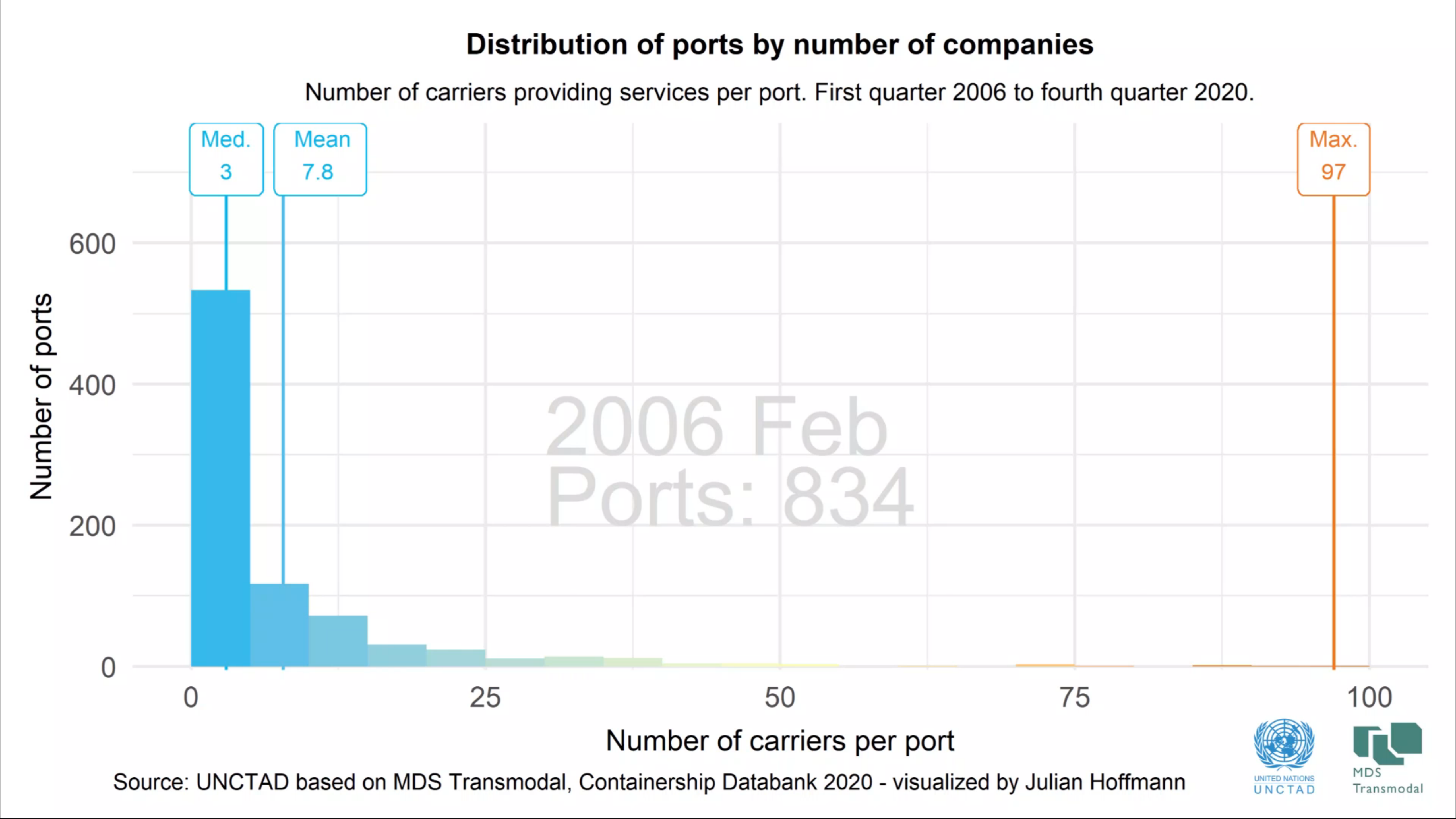

Distribution of ports by number of companies
Number of carriers providing services per port. First quarter 2006 to fourth quarter 2020.
Med.
3
Mean
7.8
Max.
97
600
400
200
0
Number of ports
2006 Feb
Ports: 834
0
25
50
75
100
Number of carriers per port
Source: UNCTAD based on MDS Transmodal, Containership Databank 2020 - visualized by Julian Hoffmann
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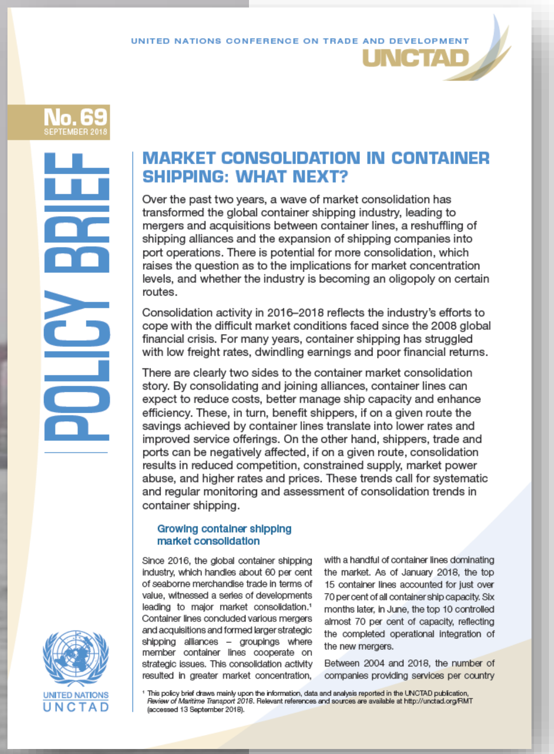
Challenges for national competition authorities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No. 69
SEPTEMBER 2018

POLICY BRIEF

MARKET CONSOLIDATION IN CONTAINER SHIPPING: WHAT NEXT?

Over the past two years, a wave of market consolidation has transformed the global container shipping industry, leading to mergers and acquisitions between container lines, a reshuffling of shipping alliances and the expansion of shipping companies into port operations. There is potential for more consolidation, which raises the question as to the implications for market concentration levels, and whether the industry is becoming an oligopoly on certain routes.

Consolidation activity in 2016–2018 reflects the industry's efforts to cope with the difficult market conditions faced since the 2008 global financial crisis. For many years, container shipping has struggled with low freight rates, dwindling earnings and poor financial returns.

There are clearly two sides to the container market consolidation story. By consolidating and joining alliances, container lines can expect to reduce costs, better manage ship capacity and enhance efficiency. These, in turn, benefit shippers, if on a given route the savings achieved by container lines translate into lower rates and improved service offerings. On the other hand, shippers, trade and ports can be negatively affected, if on a given route, consolidation results in reduced competition, constrained supply, market power abuse, and higher rates and prices. These trends call for systematic and regular monitoring and assessment of consolidation trends in container shipping.

Growing container shipping market consolidation

Since 2016, the global container shipping industry, which handles about 60 per cent of seaborne merchandise trade in terms of value, witnessed a series of developments leading to major market consolidation.[1] Container lines concluded various mergers and acquisitions and formed larger strategic shipping alliances – groupings where member container lines cooperate on strategic issues. This consolidation activity resulted in greater market concentration, with a handful of container lines dominating the market. As of January 2018, the top 15 container lines accounted for just over 70 per cent of all container ship capacity. Six months later, in June, the top 10 controlled almost 70 per cent of capacity, reflecting the completed operational integration of the new mergers.

Between 2004 and 2018, the number of companies providing services per country

[1] This policy brief draws mainly upon the information, data and analysis reported in the UNCTAD publication, *Review of Maritime Transport 2018*. Relevant references and sources are available at http://unctad.org/RMT (accessed 13 September 2018).

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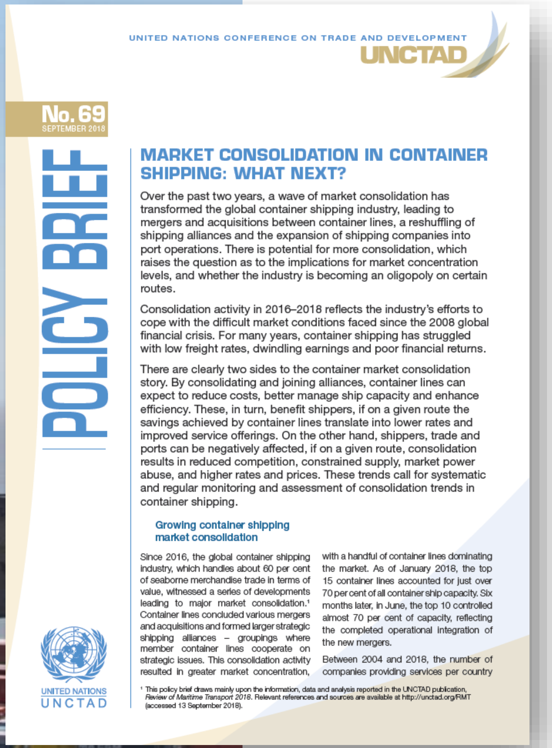
Vertical integration

- P.ej Buenos Aires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PERFORMANCE INDICATORS

Port calls

Country	Market	Arrivals	Median time at port (days)	Average year of built of vessels	Average vessel size (dwt)	Average vessel size (TEU)	Largest ship (dwt)	Largest ship (TEU)
ALL	ALL	4 362 737	0.97	2001	24 578	3 513	441 585	23 756
ALL	PASSENGER SHIPS	2 378 937	..	1998	..	..	..	..
ALL	WET BULK	526 202	0.93	2005	27 287	..	441 585	..
ALL	CONTAINER SHIPS	474 553	0.69	2006	..	3 513	..	23 756
ALL	DRY BREAKBULK	446 817	1.10	1999	7 498	..	138 743	..
ALL	DRY BULK	277 872	2.01	2004	57 261	..	404 389	..
ALL	RO/RO	190 907	..	2000	10 101	..	55 828	..
ALL	LPG CARRIERS	55 227	1.01	2005	11 625	..	64 220	..
ALL	LNG CARRIERS	12 222	1.11	2009	74 107	..	156 000	..

Source: MarineTraffic. Year: 2019. Ships of 1000 GT and above.
https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2162
http://stats.unctad.org/maritime

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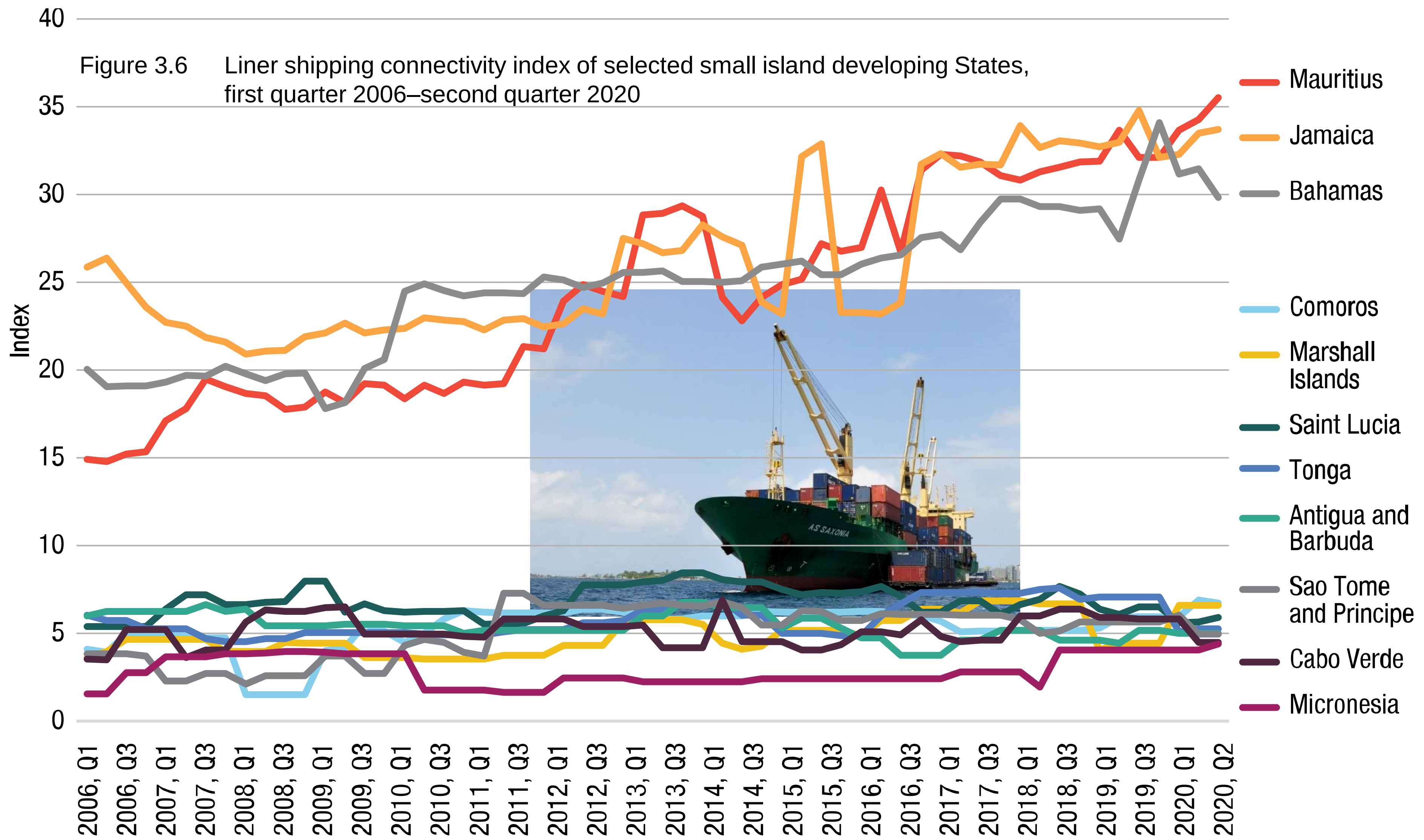
Figure 3.6 Liner shipping connectivity index of selected small island developing States, first quarter 2006–second quarter 2020



REVIEW OF MARITIME TRANSPORT 2020

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Lessons Learned from the Port Management Programme:

Port Performance Scorecard (PPS)

Mark Assaf, UNCTAD

PARTNERS (6)

- BELGIUM
- FRANCE
- IRELAND
- PORTUGAL
- SPAIN
- UNITED KINGDOM (NI)

SPANISH-SPK (15)

- ARGENTINA
- BOLIVIA
- CHILE
- COLOMBIA
- COSTA RICA
- CUBA
- DOMINICAN REPUBLIC
- ECUADOR
- EL SALVADOR
- GUATEMALA
- MEXICO
- NICARAGUA
- PERU
- URUGAY
- VENEZUELA

PORTUGUESE-SPK (7)

- ANGOLA
- BRAZIL
- CAPE VERDE
- EAST TIMOR
- GUINEA BISSAU
- MOZAMBIQUE
- SAO TOME E PRINCIPE

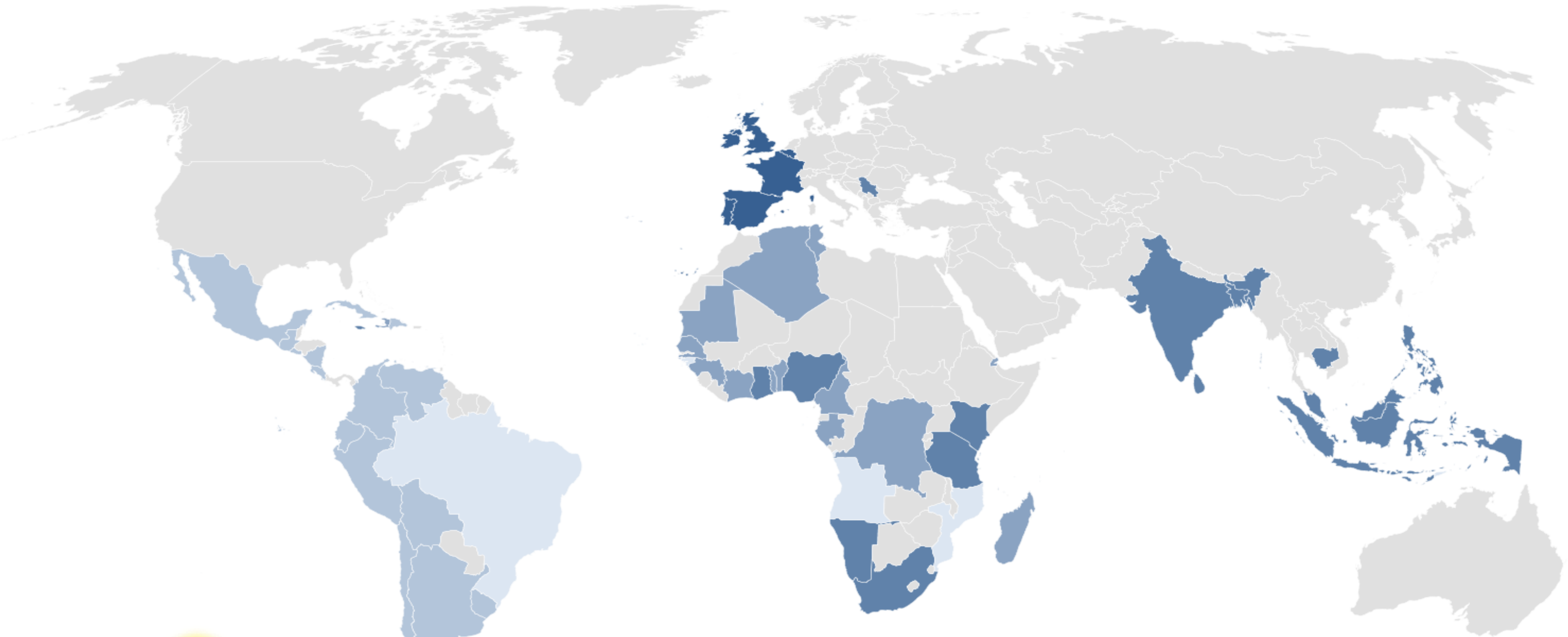
ENGLISH-SPK (16)

- BENGLADESH
- CAMBODIA
- GHANA
- INDIA
- INDONESIA
- JAMAICA
- KENYA
- MALAYSIA
- MALDIVES
- NAMIBIA
- NIGERIA
- PHILIPPINES
- SERBIA
- SOUTH AFRICA
- SRI LANKA
- TANZANIA

FRENCH-SPK (16)

- ALGERIA
- BENIN
- CAMEROON
- COMOROS
- CONGO
- COTE D'IVOIRE
- DJIBOUTI
- GABON
- GUINEA
- HAITI
- MADAGASCAR
- MAURITANIA
- SENEGAL
- SEYCHELLES
- TOGO
- TUNISIA

THE PORT MANAGEMENT PROGRAMME COVERAGE: 60 COUNTRIES

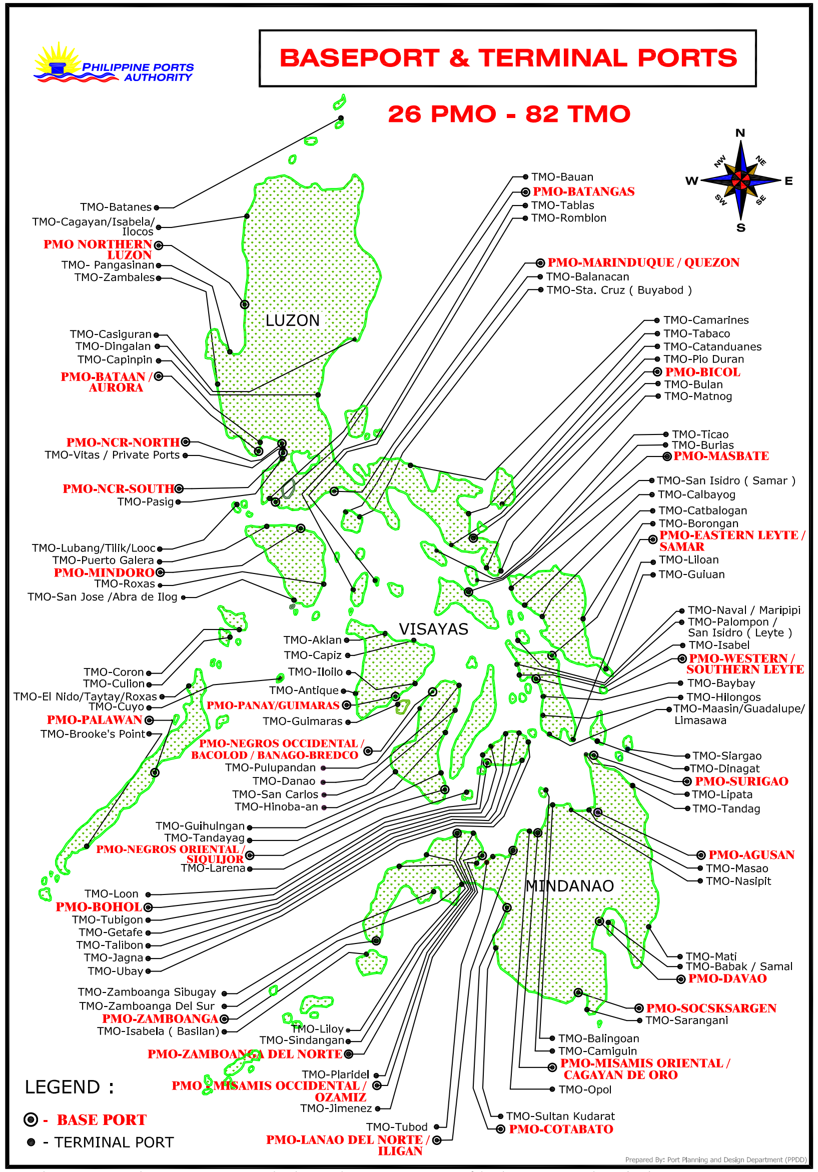


> 3700 PORT MANAGERS

WORLDWIDE NETWORKS

PHILIPPINES PORT SYSTEM

PHILIPPINE PORTS AUTHORITY (PPA)



• Based on GCG Memorandum Circular No. 2014-10 dated 25 March 2014 - Rationalization of the Philippine Ports Authority (PPA)

108 Ports & Terminals

3 Regions: Luzon, Visayas, Mindanao
26 Port Management Offices (PMO)
82 Terminal Ports (TMO)

PHILIPPINE PORTS AUTHORITY

35 Private Ports (Regulator)

PORT PERFORMANCE SCORECARD (PPS) INTERNATIONAL EVENTS

PPS1: Oct 2014 - Manila, Philippines: 26 pax/6 countries

PPS3: Nov 2016 - Valencia, Spain: 50 pax/18 countries

PPS2: Oct 2015 - Ciawi, Indonesia: 42 pax/8 countries

PPS4: Apr 2018 - Geneva, Switzerland: 97 pax/23 countries

PORT PERFORMANCE SCORECARD (PPS): 2015-2019

CATEGORIES	PORT ENTITIES 26 INDICATORS (2015-2019)	N	Mean
FINANCE	EBITDA/revenue (operating margin)	85	38.8%
	Labour/revenue	91	22.6%
	Vessel dues/revenue	90	15.9%
	Cargo dues/revenue	90	34.9%
	Concession fees/revenue	84	14.7%
	Rents/Revenue	85	6.3%
HUMAN RESOURCES	Tonnes/employee	96	61982 t
	Revenue/employee	90	$199563
	EBITDA/employee	82	$102937
	Labour cost/employee	84	$35495
	Training cost/wages	84	1.6%
GENDER	Female Participation Rate - Global	98	17.4%
	Female Participation Rate - Management	97	37.4%
	Female Participation Rate - Operations	86	13.0%
	Female Participation Rate - Cargo Handling	62	5.3%
	Female Participation Rate - Other employees	27	29.4%
VESSEL OPERATIONS	Average waiting time	84	13 h
	Average gross tonnage per vessel	95	18284
	Average of Oil Tankers arrivals	80	10.3%
	Average of Bulk Carrier arrivals	81	10.8%
	Average of Container Ship arrivals	79	31.8%
	Average of Cruise Ship	78	1.4%
	Average of General Cargo Ship	82	23.6%
	Average of Other Ship	80	24.1%
CARGO OPERATIONS	Average tonnage per arrival (all)	103	7865 t
	Tonnes per working hour, dry or solid bulk	62	411 t
	Tonnes per hour, liquid bulk	40	428 t
	Box Per Ship Hour at Berth	47	28
	Twenty-foot equivalent unit dwell time in days	55	7
	Tonnes per hectare (all)	91	140408 t
	Tonnes per berth meter (all)	102	10091 t
	Total Passengers on Ferries	58	1433448
	Total Passengers on Cruise	63	122947
ENVIRONMENT	Investment in Environmental Projects/Total CAPEX	35	7.2%
	Environmental expenditures/Revenue	50	2.3%

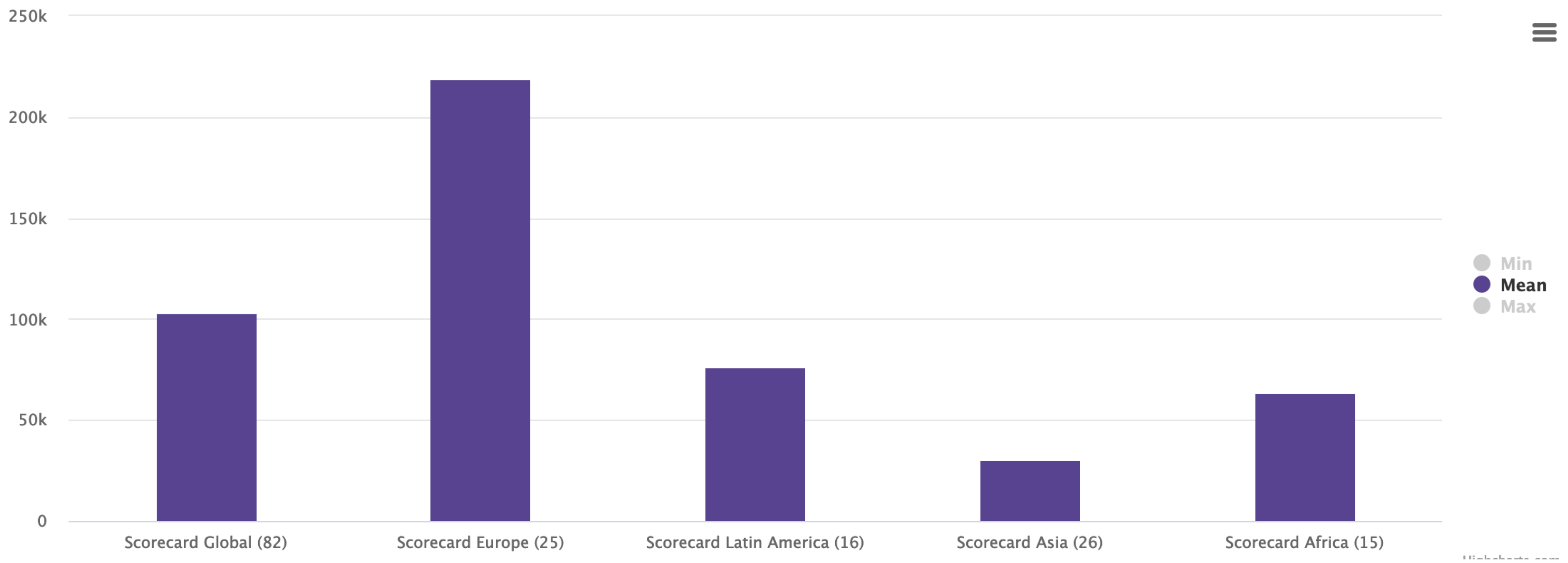
PORT PERFORMANCE SCORECARD (PPS)

EBITDA/employee

Actions

(No description)

Scorecard	N	Min	Mean	Max
Scorecard Global	82	$-48847	$102937	$402525
Scorecard Europe	25	$43319	$218594	$402525
Scorecard Latin America	16	$2589	$76477	$156797
Scorecard Asia	26	$-48847	$30686	$223991
Scorecard Africa	15	$4795	$63635	$254656



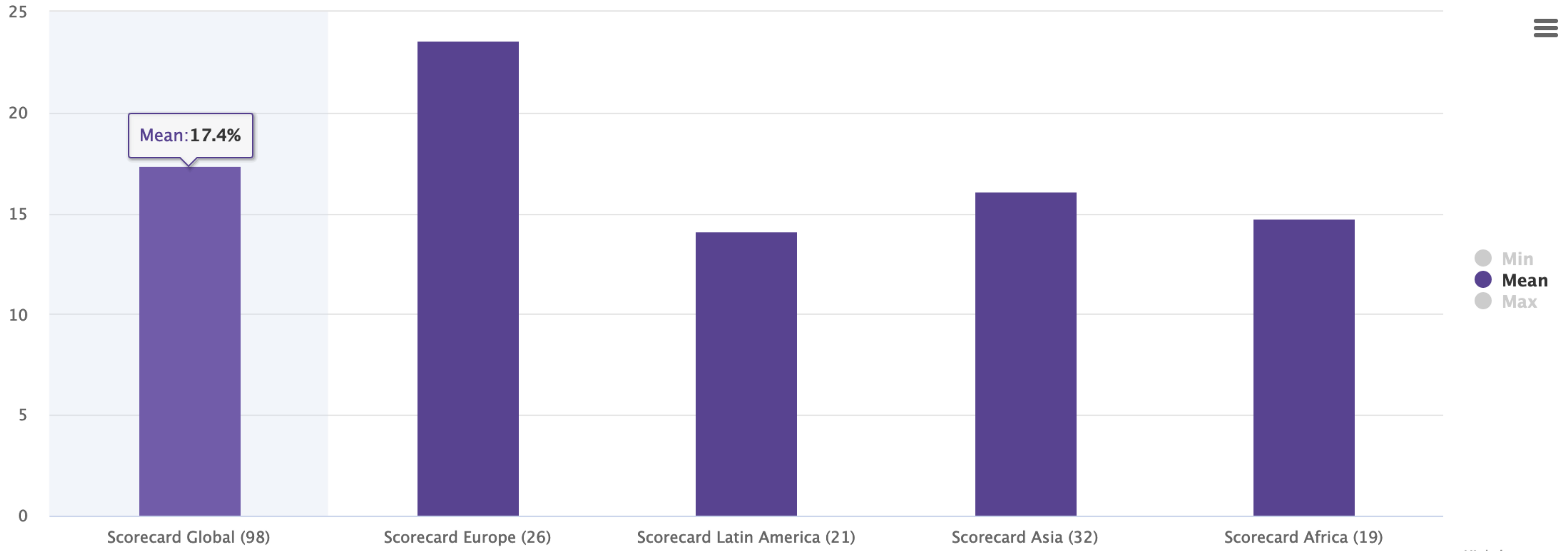
PORT PERFORMANCE SCORECARD (PPS)

Female Participation Rate - Global

Actions

(No description)

Scorecard	N	Min	Mean	Max
Scorecard Global	98	5.4%	17.4%	44.4%
Scorecard Europe	26	12.9%	23.6%	44.4%
Scorecard Latin America	21	7.5%	14.1%	27.3%
Scorecard Asia	32	5.4%	16.1%	35.0%
Scorecard Africa	19	7.2%	14.7%	26.9%



IMPACT

- “The Port Performance Scorecard (PPS) scheme helps us to define appropriate targets, having access to an industry reference that we can analyse from different perspectives (e.g. regional) and that covers many of our own indicators. In our view, it has the ability to become an industry standard and, thus, a globally accepted benchmark, helping the port sector to continuously improve its efficiency”.

Juan Manuel Diez Orejas
Strategic Planning and Innovation Director

valenciaport
Autoridad Portuaria de Valencia

- “When forecasting profit levels, wage profiles, employment numbers and revenue profiles, the PPS is a valuable resource. It provides an alternative dynamic to designing a Greenfield port model”.

Joseph Hiney
Chairman Drogheda Port Company

Drogheda Port COMPANY

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LEAVING NO ONE BEHIND

Mark Assaf
Chief
HRD Section/TrainForTrade
UNCTAD
Tel: + 41 22 917 5481
E-mail: mark.assaf@un.org

@trainfortrade

http://tft.unctad.org

Strengthening knowledge
and skills through **innovative approaches** for sustainable economic development