



3<sup>ο</sup> ΔΙΕΘΝΕΣ ΣΥΝΕΔΡΙΟ

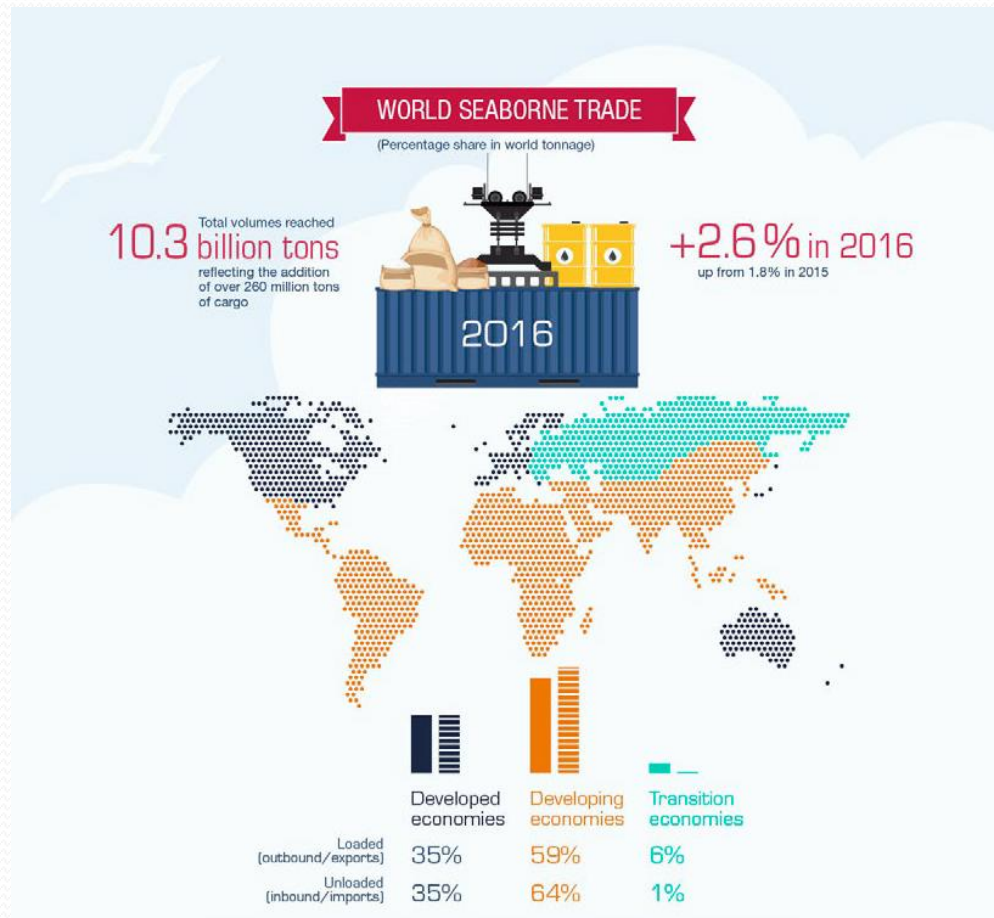
Λιμάνια, Θαλάσσιες Μεταφορές & Νησιωτικότητα  
Εμπορικό & Βιομηχανικό Επιμελητήριο Πειραιά  
19 & 20 Απριλίου 2018

# Προοπτικές του Λιμένα Πειραιά στη Νέα Εποχή *Piraeus Port Perspectives in the new Era*

Κ.Ι. Μουτζούρης, Πρόεδρος Δ.Ε. Πανεπιστημίου Δυτικής Αττικής

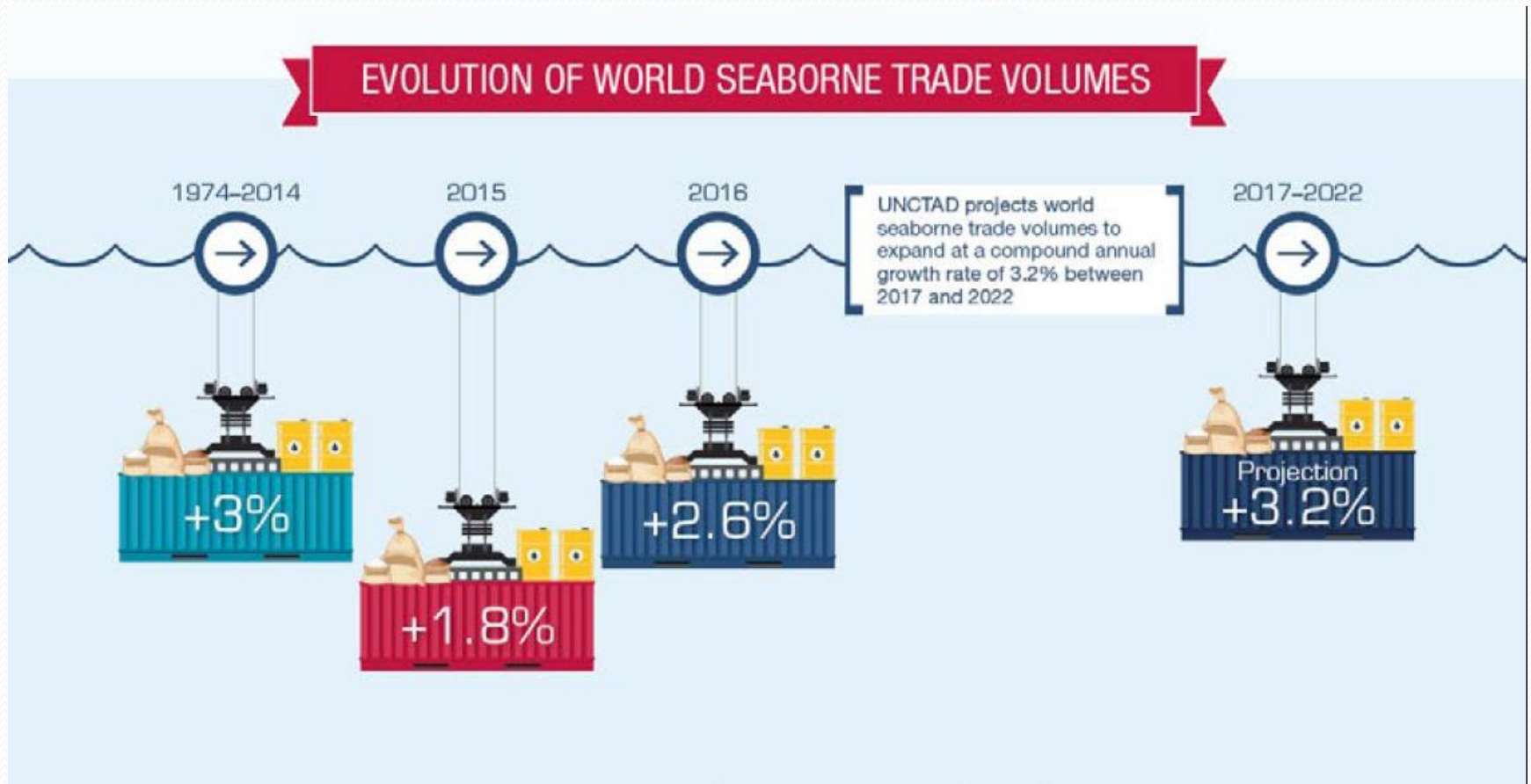
Θ.Ε. Γιαντσή, Ε.ΔΙ.Π. Ε.Μ.Π.

# WORLD SEABORNE TRADE



Source: UNCTAD , 2017

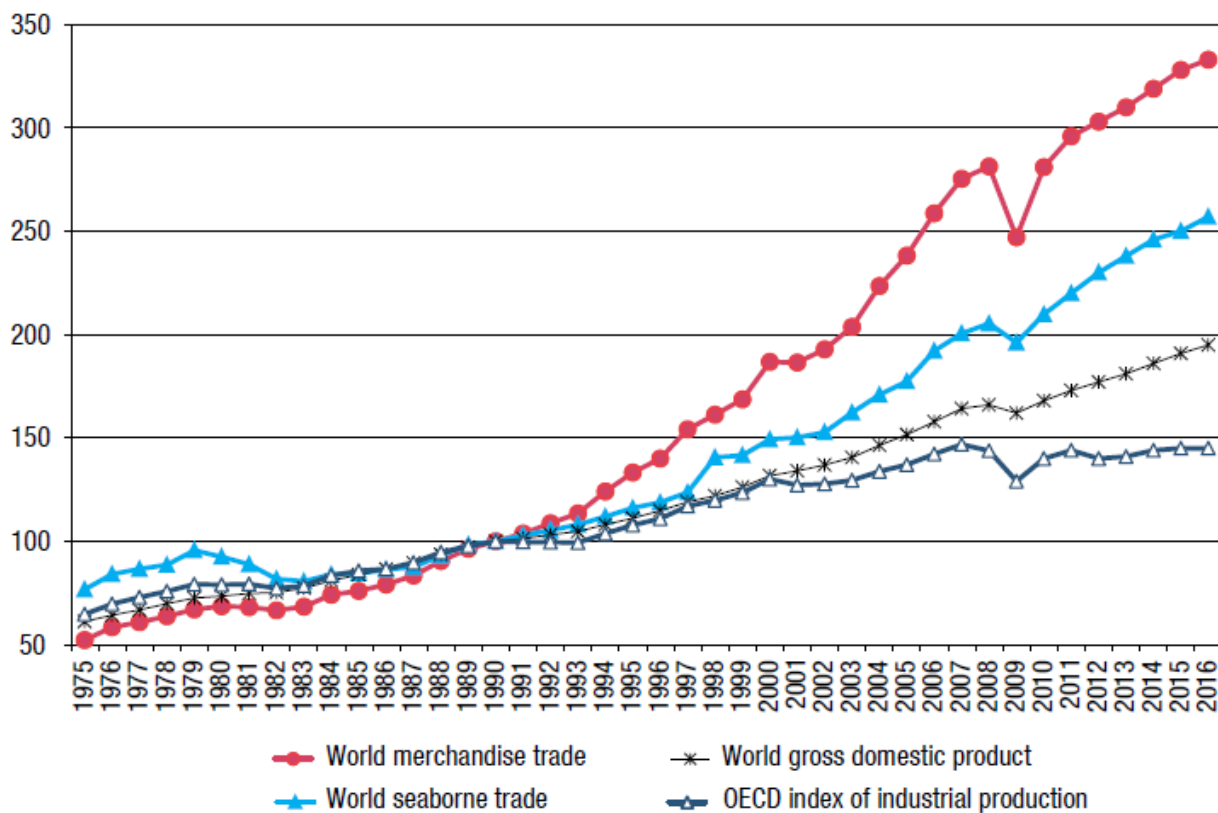
# EVOLUTION OF WORLD SEABORNE TRADE VOLUMES



Source: UNCTAD 2017

# ECONOMIC INDICES

**Figure 1.1. Organization for Economic Cooperation and Development index of industrial production and world indices: Gross domestic product, merchandise trade and seaborne shipments, 1975–2016 (1990 = 100)**



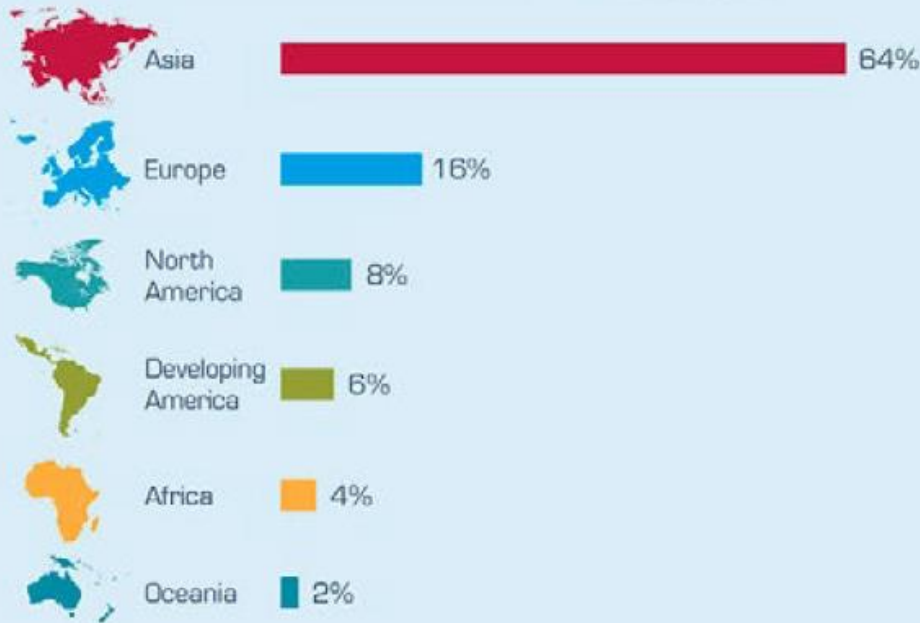
Source: UNCTAD 2017

## TRENDS IN WORLD CONTAINER PORTS



# WORLD CONTAINER PORT VOLUMES

## WORLD CONTAINER PORT VOLUMES BY REGION

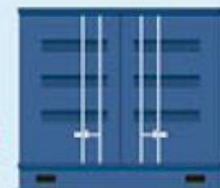


## TYPE OF TRAFFIC

**76%**  
of total volumes  
handled accounted for  
by full containers



**24%**  
empty containers



# WORLD CONTAINER PORT THROUGHPUT BY REGION

	2014	2015	2016
Africa	28 027 967	28 122 893	27 909 132
Asia	429 641 660	439 573 985	446 813 796
Developing America	45 615 876	45 804 387	45 915 853
Europe	109 018 957	108 359 396	113 831 821
North America	51 659 185	53 689 663	54 120 207
Oceania	11 017 084	11 139 239	11 112 739
<b>Total</b>	<b>674 980 729</b>	<b>686 689 563</b>	<b>699 703 546</b>
Annual percentage change	5.7	1.7	1.9

Source: UNCTAD 2017

PIRAEUS: ~3.500.000 TEU'S ~ 3% Europe ~ 0.5% World

# TRADE VOLUME BETWEEN EUROPE AND THE WORLD

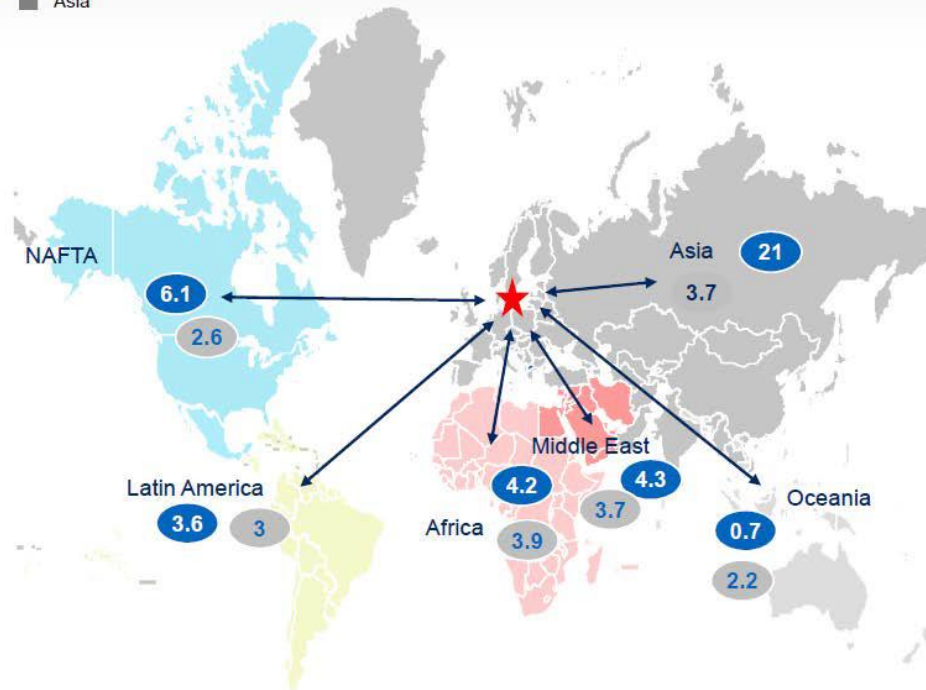
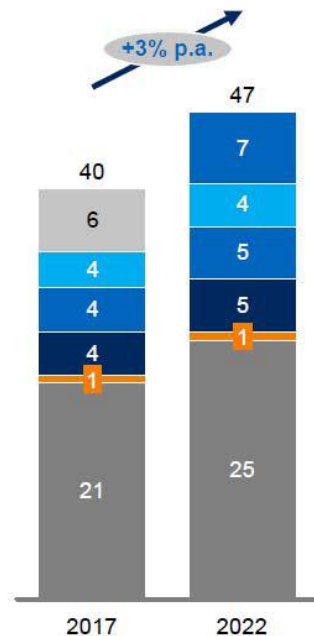
Global trade volume between Europe and other regions is expected to grow by 3% p.a., with Asia capturing the lion share

Mn TEU (outbound and inbound), 2016

XX Trade Flow Volume

XX Growth rate 2017-2022

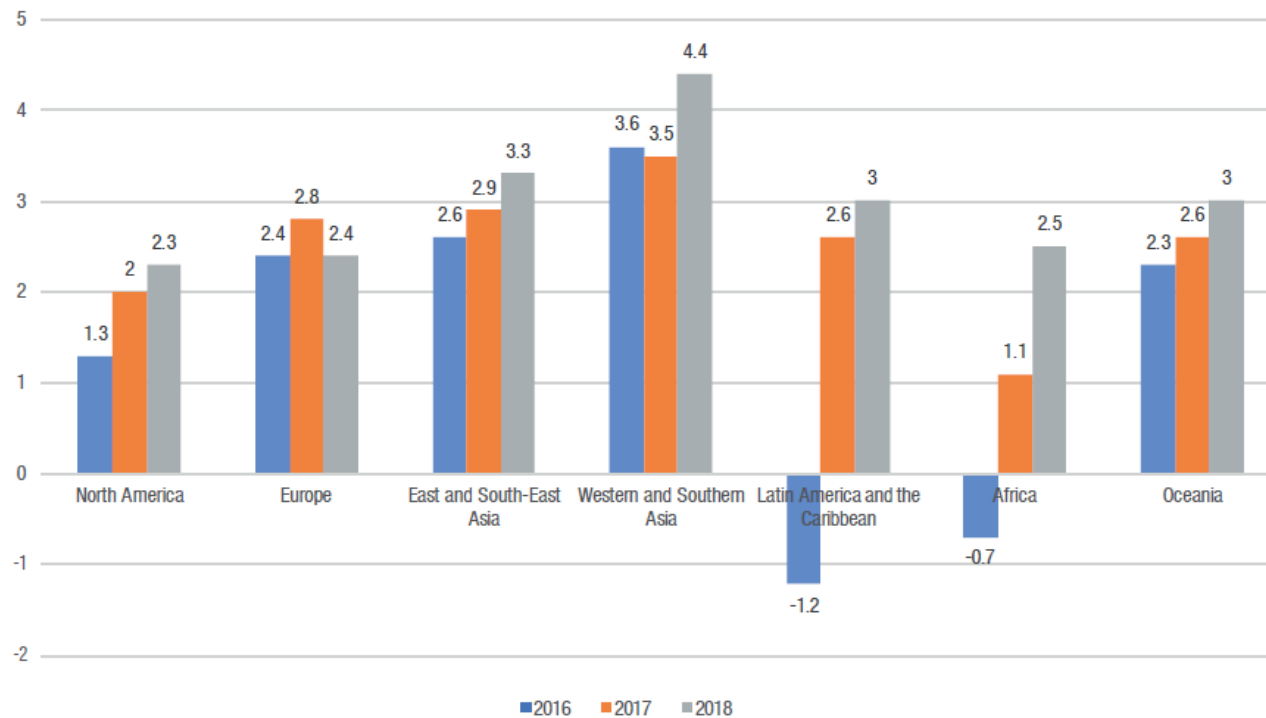
NAFTA Africa Oceania  
Latin America Middle East Asia



Source: McKinsey PPA Strategic Plan

# CONTAINER PORT VOLUME GROWTH (2016-2018)

Figure 4.2. Container port volume growth, 2016–2018



Source: Drewry Maritime Research, 2017.

Note: Data for 2017 and 2018 are projected figures.

# 40 TOP CONTAINER TERMINAL

Table 4.2. Container port volumes handled at top 40 container terminals, 2015 and 2016  
(Twenty-foot equivalent units, percentage shares and rank)

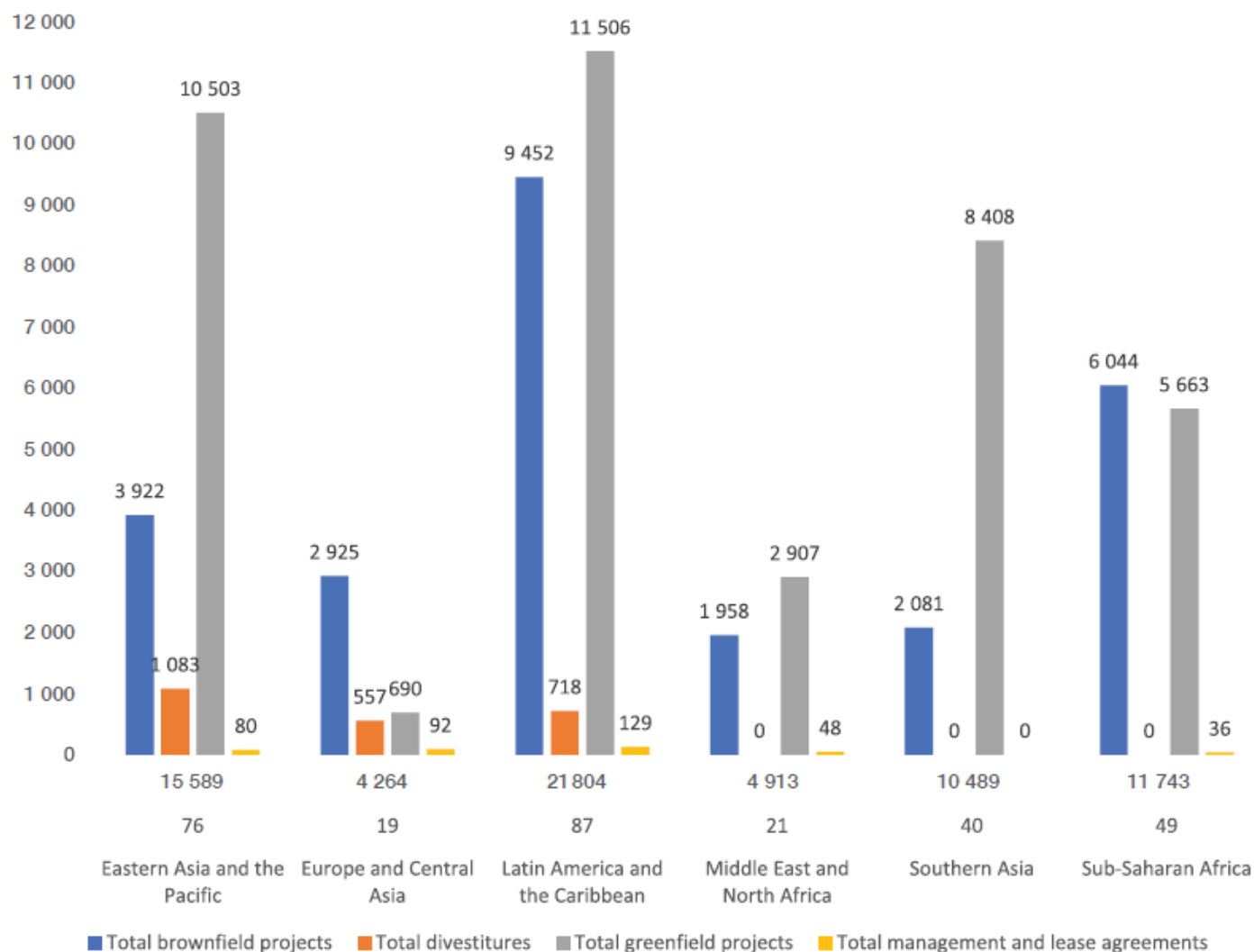
Port	Country	2016 (Throughput)	2015 (Throughput)	2015–2016 (Percentage change)	2016 (Rank)
Shanghai	China	37 135 000	36 537 000	1.6	1
Singapore	Singapore	30 930 000	30 962 000	-0.1	2
Shenzhen	China	23 980 000	24 204 000	-0.9	3
Ningbo	China	21 565 000	20 593 000	4.7	4
Hong Kong	Hong Kong (China)	19 580 000	20 114 000	-2.7	5
Busan	Republic of Korea	19 378 000	19 296 000	0.4	6
Guangzhou	China	18 859 000	17 457 000	8.0	7
Qingdao	China	18 050 000	17 465 000	3.3	8
Dubai	United Arab Emirates	14 772 000	15 592 000	-5.3	9
Tianjin	China	14 523 000	14 109 000	2.9	10
Port Kelang	Malaysia	13 167 000	11 891 000	10.7	11
Rotterdam	Netherlands	12 385 000	12 235 000	1.2	12
Kaohsiung	Taiwan Province of China	10 460 000	10 264 000	1.9	13
Antwerp	Belgium	10 037 000	9 650 000	4.0	14
Xiamen	China	9 614 000	9 179 000	4.7	15
Dalian	China	9 584 000	9 449 000	1.4	16
Hamburg	Germany	8 900 000	8 825 000	0.8	17
Los Angeles	United States	8 857 000	8 160 000	8.5	18
Tanjung Pelepas	Malaysia	8 029 000	8 799 000	-8.8	19
Cat Lai	Viet Nam	7 547 000	6 863 000	10.0	20
Laem Chabang	Thailand	7 227 000	6 821 000	6.0	21
Long Beach	United States	6 775 000	7 192 000	-5.8	22
New York	United States	6 250 000	6 372 000	-1.9	23
Yingkou	China	6 087 000	5 921 000	2.8	24
Colombo	Sri Lanka	5 735 000	5 185 000	10.6	25

Laem Chabang	Thailand	7 227 000	6 821 000	6.0	21
Long Beach	United States	6 775 000	7 192 000	-5.8	22
New York	United States	6 250 000	6 372 000	-1.9	23
Yingkou	China	6 087 000	5 921 000	2.8	24
Colombo	Sri Lanka	5 735 000	5 185 000	10.6	25
Tanjung Priok	Indonesia	5 515 000	5 201 000	6.0	26
Bremerhaven	Germany	5 489 000	5 546 000	-1.0	27
Suzhou	China	5 479 000	5 102 000	7.4	28
Lianyungang	China	4 829 000	5 009 000	-3.6	29
Algeciras	Spain	4 745 000	4 511 000	5.2	30
Valencia	Spain	4 660 000	4 668 000	-0.2	31
Tokyo	Japan	4 653 000	4 623 000	0.6	32
Jawaharlal Nehru	India	4 475 000	4 468 000	0.2	33
Manila	Philippines	4 427 000	4 135 000	7.1	34
Jeddah	Saudi Arabia	3 997 000	4 188 000	-4.6	35
Piraeus	Greece	3 750 000	3 287 000	14.1	36
Felixtowe	United Kingdom	3 745 000	4 043 000	-7.4	37
Savannah	United States	3 645 000	3 737 000	-2.5	38
Seattle	United States	3 529 000	3 529 000	0.0	39
Santos	Brazil	3 564 000	3 774 000	-5.6	40
<b>Total</b>		<b>415 928 000</b>	<b>408 956 000</b>	<b>1.7</b>	

Source: UNCTAD secretariat calculations, based on data from Drewry Maritime Research, 2016a.

Piraeus	Greece	3 750 000	3 287 000	14.1	36
Felixtowe	United Kingdom	3 745 000	4 043 000	-7.4	37
Savannah	United States	3 645 000	3 737 000	-2.5	38
Seattle	United States	3 529 000	3 529 000	0.0	39
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<b>Total</b>		<b>415 928 000</b>	<b>408 956 000</b>	<b>1.7</b>	

**Figure 4.5. Private participation in port infrastructure investments and number of projects by region and type, 2000–2016**  
(Million dollars)



Source: UNCTAD secretariat calculations, based on World Bank, 2017a (as at July 2017).

# ONE BELT ONE ROAD (OBOR)



## OBOR's Economic Scale (2013)

## Percent of world total

Population  
covered

**4.4** bn

**63%**

GDP of  
countries  
covered

**\$ 21** tr

**29%**

Goods and  
services  
exported

**\$ 18** tr

**24%**

Number of  
countries  
expressing  
interest

**>60**

## The multiplier effect of infrastructure investment



**\$200** bn<sup>1</sup>

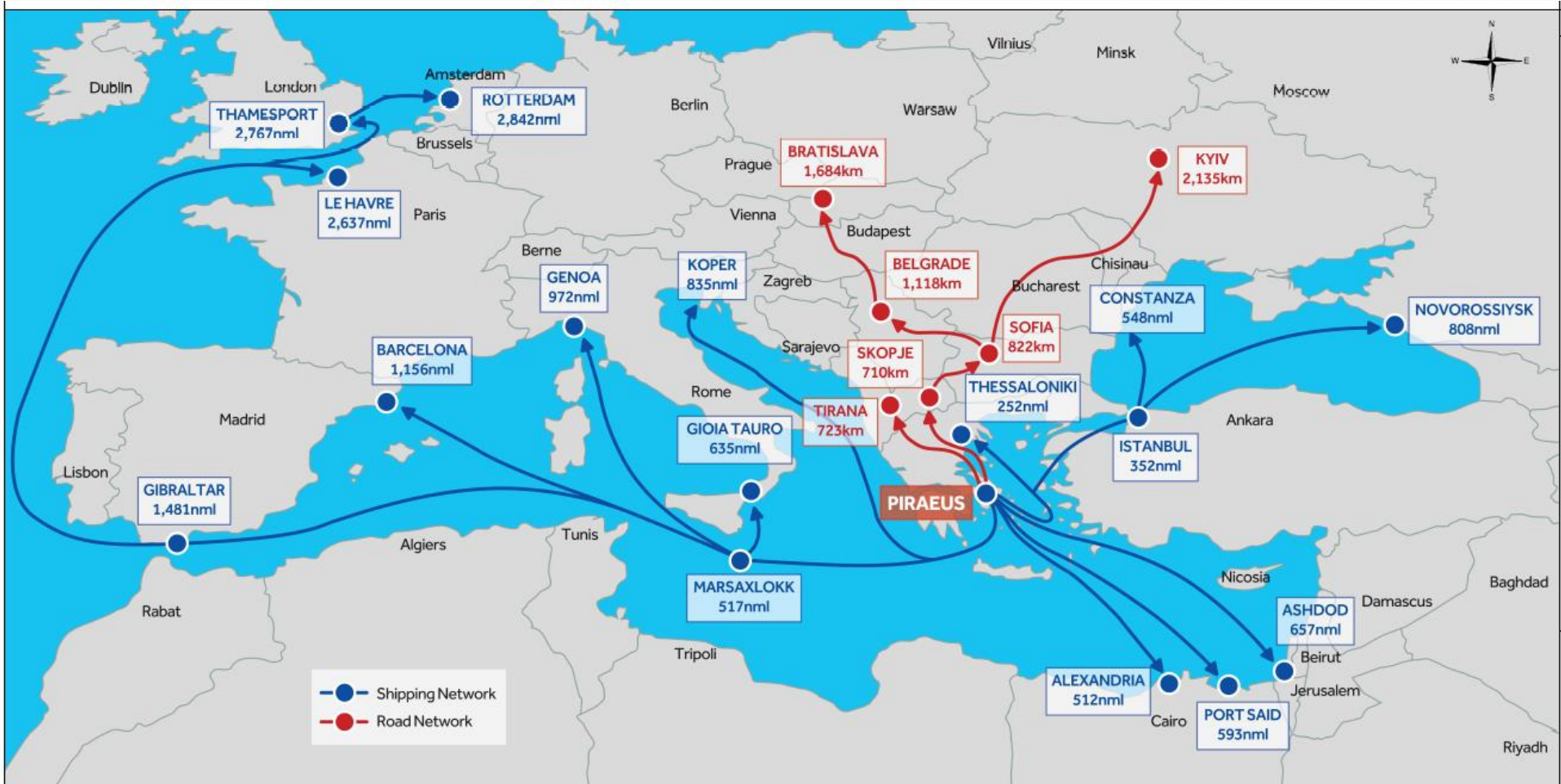
**12-16** mn

**\$500** bn

Infrastructure  
Investment

New jobs

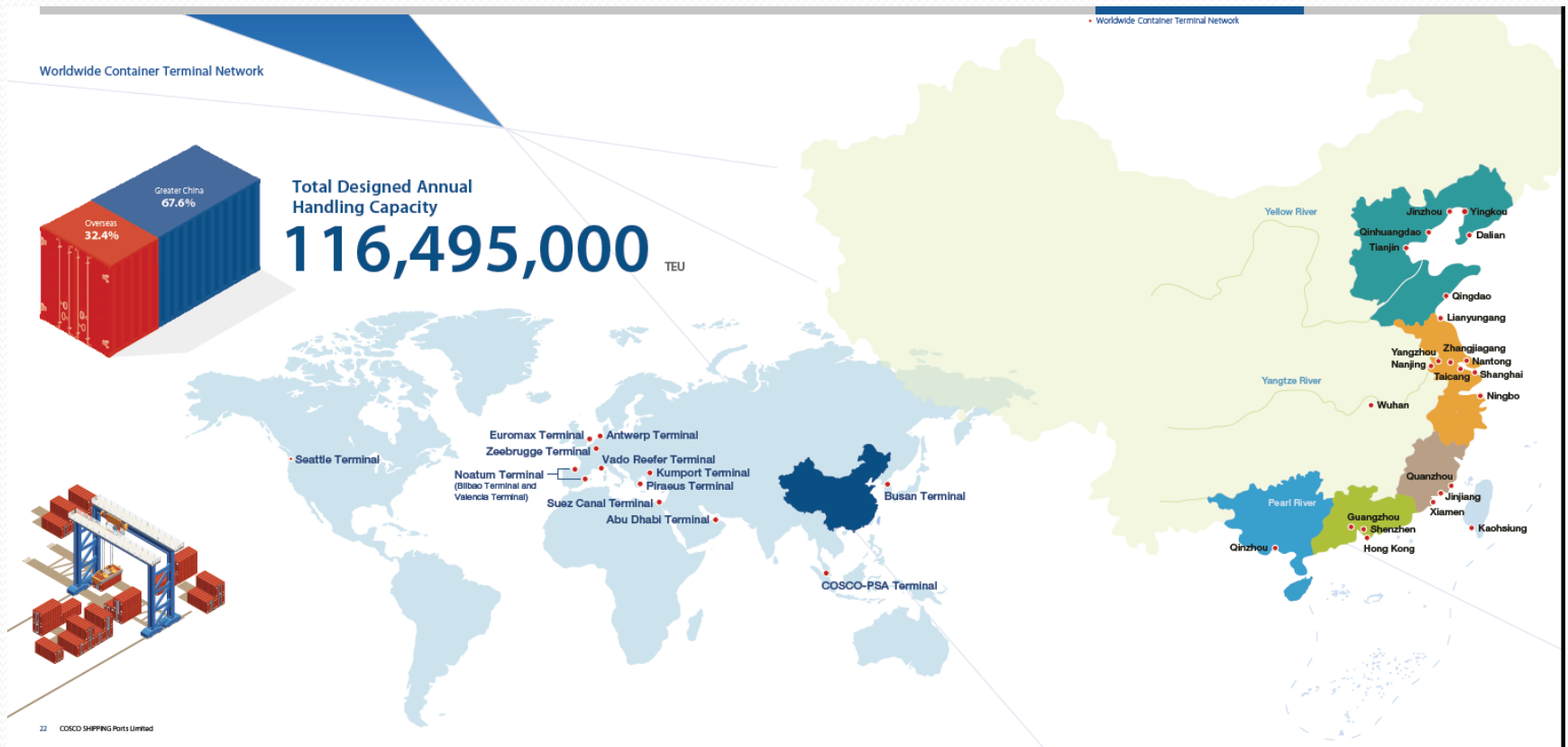
Incremental  
GDP



SOURCE: MASTER PLAN PPA 2018

# COSCO SHIPPING Ports Limited

## GLOBALISATION-SYNERGY-CONTROL



SOURCE: COSCO SHIPPING port Limited, Annual Report 2017

# COSCO SHIPPING Ports Limited



SOURCE: COSCO SHIPPING port Limited, Annual Report 2017

# COSCO SHIPPING Ports Limited

## Overseas

20%	Antwerp Terminal	20%	Suez Canal Terminal
26%	Kumport Terminal	90%	Abu Dhabi Terminal
49%	COSCO-PSA Terminal	100%	Zeebrugge Terminal
100%	Piraeus Terminal	39.78%	Bilbao Terminal
5.5%	Busan Terminal	51%	Valencia Terminal
13.33%	Seattle Terminal	40%	Vado Reefer Terminal
35%	Euromax Terminal		

## Terminal Related Businesses

50%	Piraeus Consolidation and Distribution Centre S.A.
-----	--

SOURCE: COSCO SHIPPING port Limited, Annual Report 2017



Noatum Ports shareholders have confirmed the conclusion of a partnership agreement with the Hong Kong listed company COSCO SHIPPING Ports Limited entering a Sale and Purchase Agreement for the transfer of 51% of Noatum Ports. This transaction will include the container terminals owned by the company in Valencia (Noatum Container Terminal Valencia) and Bilbao (Noatum Container Terminal Bilbao), as well as the dry ports of Madrid (Conterail) and Zaragoza (Noatum Rail Terminal Zaragoza).

# OCEAN ALLIANCE

In 2017, the OCEAN Alliance was officially established. According to a survey conducted by Alphaliner on 13 February 2018, the OCEAN Alliance, together with the 2M and THE Alliances, accounted for 79% of the global container shipping capacity.

With more than 41 shipping routes in East west bound and Middle East Red Sea bound and 350 container vessels, the OCEAN Alliance, of which COSCO SHIPPING, the parent company of the Company, is a member, has a total fleet capacity of 3,500,000 TEU. Ever since it started operation in April 2017, the OCEAN Alliance has been increasing its calls to the terminals of COSCO SHIPPING Ports and has accounted for 44% of the total throughput of the Group's subsidiaries for the year.

The Group believes the calls of the OCEAN Alliance's fleet will continue to drive the growth of the Group's throughput going forward.

# MARKET REVIEW

The global economy experienced a steady broad based recovery in 2017, and the confidence of investors has been restored.

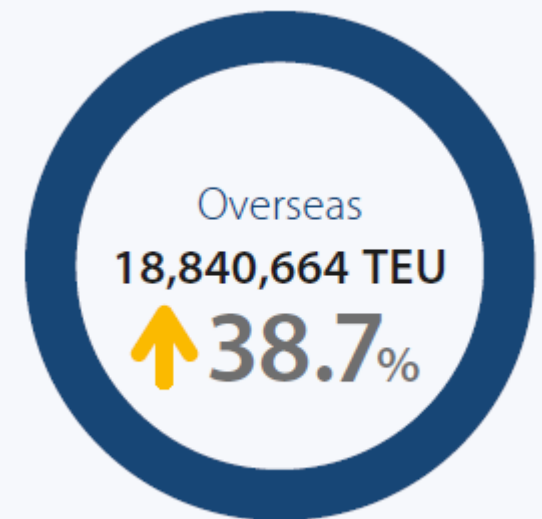
According to the International Monetary Fund (“IMF”), global economic growth was expected to reach 3.7% in 2017 – the fastest growth pace since 2011 – which had driven the expansion of international trade to 4.7%, an increase of 2.2 percentage points over the previous year.

According to Drewry Shipping Consultants Limited, the total throughput of global containers was expected to increase by 5.4% in 2017, rising 2 percentage points over 2016.

Ports in China have also reported good growth as total throughput for the year was 236,800,000 TEU, an increase of 8.3%, up 4.7 percentage points from last year.

# COSCO SHIPPING port Limited

Piraeus Terminal	3,691,815	+6.4%
Zeebrugge Terminal	316,448	+14.1%
NPH Group <sup>7</sup>	554,028	N/A
COSCO-PSA Terminal	2,044,536	+13.0%
Vado Reefer Terminal <sup>8</sup>	39,455	N/A
Euromax Terminal <sup>9</sup>	2,693,337	+311.9%
Kumport Terminal	1,063,335	+59.8%
Suez Canal Terminal	2,528,647	-0.7%
Antwerp Terminal	2,166,096	+12.7%
SSA Terminals	188,455	+24.4%
Busan Terminal	3,554,512	+70.5%



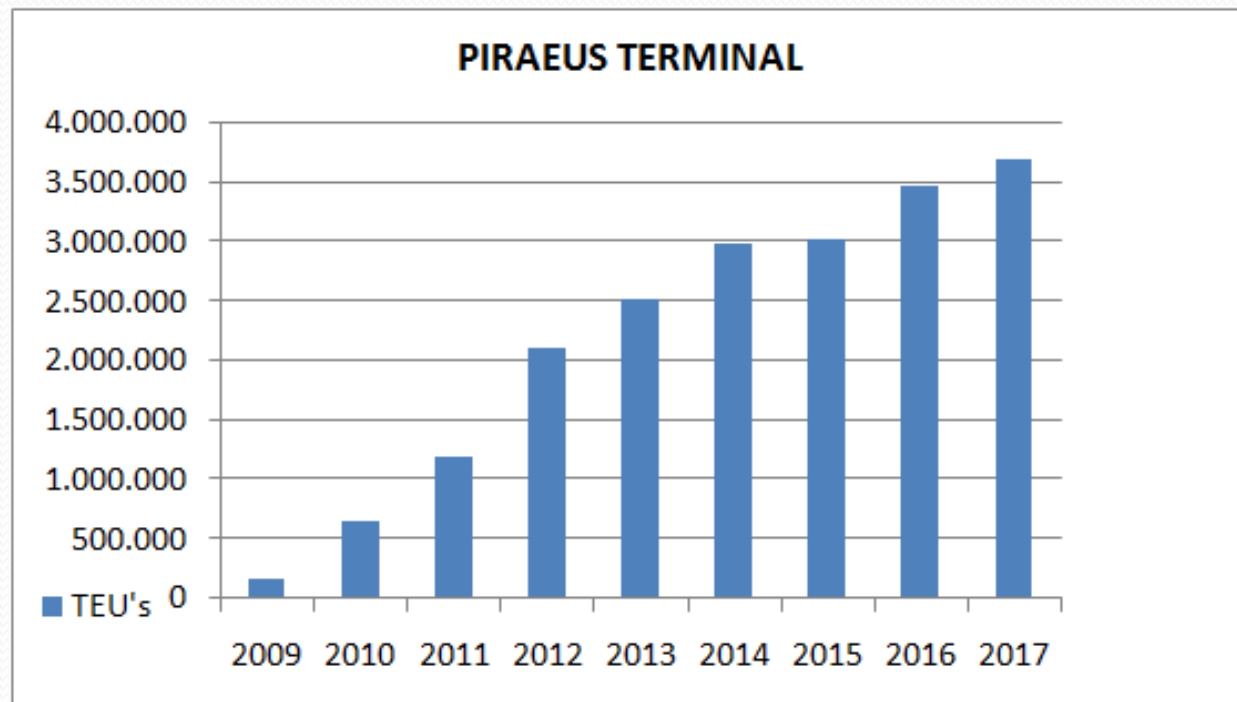
SOURCE: COSCO SHIPPING port Limited, Annual Report 2017

# COSCO throughput

Financial statistics	2008	2009	2010	2011	2012	2013	2014	2015 (Restated)	2016	2017
<b>Container throughput</b>	TEU									
COSCO-HIT Terminal	1,752,251	1,360,945	1,535,923	1,625,819	1,683,748	1,639,275	1,639,995	1,575,858	1,343,859	1,920,597
Yantian Terminal	9,683,493	8,579,013	10,133,967	10,264,440	10,666,758	10,796,113	11,672,798	12,165,687	11,696,492	12,703,733
Shanghai Terminal	3,681,785	2,979,849	3,197,244	—	—	—	—	—	—	—
Zhangjiagang Win Hanverky Terminal	710,831	715,413	889,515	1,065,382	1,228,935	1,374,596	798,773	672,295	675,062	735,918
Qingdao Cosport Terminal	1,099,937	1,145,352	1,284,903	—	—	—	—	—	—	—
Dalian Port Container Co., Ltd.	2,742,503	2,906,768	—	—	—	—	—	—	—	—
Shanghai Pudong Terminal	2,779,109	2,291,281	2,450,176	2,388,156	2,151,297	2,246,026	2,373,620	2,508,121	2,556,220	2,650,396
Qingdao Qianwan Terminal	8,715,098	8,961,785	10,568,065	12,426,090	14,045,503	14,981,635	16,108,145	16,995,934	17,499,703	—
COSCO-PSA Terminal	1,247,283	904,829	1,091,639	1,106,262	1,232,954	1,048,846	1,311,747	1,526,328	1,809,428	2,044,536
Yangzhou Yuanyang Terminal	267,970	221,046	302,617	400,224	401,003	449,849	481,704	482,106	454,104	489,108
Yingkou Terminal	950,801	1,023,107	1,196,932	1,303,068	1,600,094	1,716,106	1,716,128	1,560,138	1,586,108	1,496,050
Nanjing Longtan Terminal	1,160,261	1,058,499	1,245,559	1,600,523	2,035,617	2,400,370	2,495,608	2,633,753	2,773,005	2,881,008
Dalian Port Terminal	1,656,968	1,509,401	1,668,418	1,900,204	2,216,353	2,732,174	2,732,136	2,495,053	2,683,879	2,604,631
Tianjin Five Continents Terminal	1,938,580	1,940,933	1,917,873	2,100,321	2,180,184	2,300,918	2,569,695	2,570,233	2,571,772	2,580,943
Antwerp Terminal	1,091,657	639,957	795,534	1,168,930	1,101,163	1,370,609	1,727,116	2,015,306	1,922,281	2,166,096
Qian Zhou Pacific Terminal	910,058	936,136	1,050,710	1,186,799	1,201,279	1,090,660	1,160,480	1,221,692	1,308,652	1,384,479
Guangzhou South China Oceangate Terminal	2,000,130	2,158,291	3,060,591	3,914,348	4,230,574	4,449,311	4,647,266	4,486,627	4,781,665	5,056,257
Ningbo Yuan Dong Terminal	903,865	1,117,169	1,704,588	2,145,653	2,402,554	2,806,406	3,214,703	3,040,762	2,536,182	2,980,839
Suez Canal Terminal	2,392,516	2,659,584	2,856,854	3,246,467	2,863,167	3,124,828	3,400,397	2,954,080	2,547,597	2,528,647
Jinjiang Pacific Terminal	193,779	274,390	313,585	314,101	358,836	418,242	467,610	347,226	364,255	495,993
Piraeus Terminal	—	166,062	684,881	1,188,148	2,108,090	2,519,664	2,986,904	3,034,428	3,470,981	3,691,815
Tianjin Euroasia Terminal	—	—	574,296	1,350,962	1,705,667	1,803,407	2,004,170	2,032,389	2,232,973	2,469,753
Xiamen Ocean Gate Terminal	—	—	—	—	271,449	609,393	806,183	1,034,753	1,131,197	1,501,001
Kao Ming Container Terminal	—	—	—	—	—	1,170,704	1,333,226	1,525,359	1,728,922	1,698,187
Taicang International Container Terminal	—	—	—	—	—	235,759	538,304	539,771	513,296	520,799
Asia Container Terminals Limited	—	—	—	—	—	—	1,139,414	1,252,815	1,088,891	1,568,298
Dalian International Terminal	—	—	—	—	—	—	—	2,826,893	3,182,368	2,828,933
Dalian Dagang Terminal	—	—	—	—	—	—	—	15,971	21,094	24,582
Yingkou New Century Terminal	—	—	—	—	—	—	—	1,850,064	1,870,076	1,515,057
Jinzhou New Age Terminal	—	—	—	—	—	—	—	351,773	449,016	571,113
Qinhuangdao New Harbour Terminal	—	—	—	—	—	—	—	500,879	515,482	559,330
Shanghai Mingdong Terminal	—	—	—	—	—	—	—	5,668,946	5,900,056	6,500,062
Lianyungang New Oriental Terminal	—	—	—	—	—	—	—	3,525,770	3,100,243	2,872,563
Guangzhou Nansha Stevedoring Terminal	—	—	—	—	—	—	—	5,757,635	5,786,311	5,800,302
Qinzhou International Terminal	—	—	—	—	—	—	—	920,737	1,138,057	1,357,005
Zeebrugge Terminal	—	—	—	—	—	—	—	268,261	277,363	316,448
Seattle Terminal	—	—	—	—	—	—	—	128,332	151,534	188,455
Busan Terminal	—	—	—	—	—	—	—	—	2,084,592	3,554,512
Kumport Terminal	—	—	—	—	—	—	—	—	665,398	1,063,335
Euromax Terminal	—	—	—	—	—	—	—	—	653,808	2,693,337
NPH Group	—	—	—	—	—	—	—	—	—	554,028
Vado Reefer Terminal	—	—	—	—	—	—	—	—	—	39,455
QPI	—	—	—	—	—	—	—	—	—	12,270,000
Dalian Container Terminal	—	—	—	—	—	—	—	—	—	1,324,584
<b>Total</b>	<b>45,878,875</b>	<b>43,549,810</b>	<b>48,523,870</b>	<b>50,695,897</b>	<b>55,685,225</b>	<b>61,284,891</b>	<b>67,326,122</b>	<b>90,485,975</b>	<b>95,071,922</b>	<b>100,202,185</b>

SOURCE: COSCO SHIPPING port Limited, Annual Report 2017

# COSCO- PIRAEUS TERMINAL THROUGHPUT



# COSCO OVERSEAS TERMINAL PORTFOLIO

## Terminal Portfolio\* (as of 31 December 2017)

Terminal company	Share holdings	Target number of berths	Designed annual handling capacity (TEU)	Depth (m)
Overseas		62	37,700,000	
		2	600,000 pallets	
Piraeus Terminal	100%	8	6,200,000	14.5-18.5
Suez Canal Terminal	20%	8	5,100,000	16
Kumport Terminal	26%	6	3,000,000	15-16.5
Zeebrugge Terminal	100%	3	1,000,000	17.5
Antwerp Terminal	20%	6	3,500,000	14.5-16.5
COSCO-PSA Terminal	49%	3	3,000,000	18
Busan Terminal	5.50%	8	4,000,000	15-16
Seattle Terminal	13.33%	2	900,000	15
Euromax Terminal	35%	5	3,200,000	16.65
Abu Dhabi Terminal	90%	3	2,400,000	18
Vado Reefer Terminal	40%	1	300,000	14.1
		2	600,000 pallets	14.1
Valencia Terminal	51%	6	4,100,000	16
Bilbao Terminal	39.78%	3	1,000,000	21

SOURCE: COSCO SHIPPING port Limited, Annual Report 2017

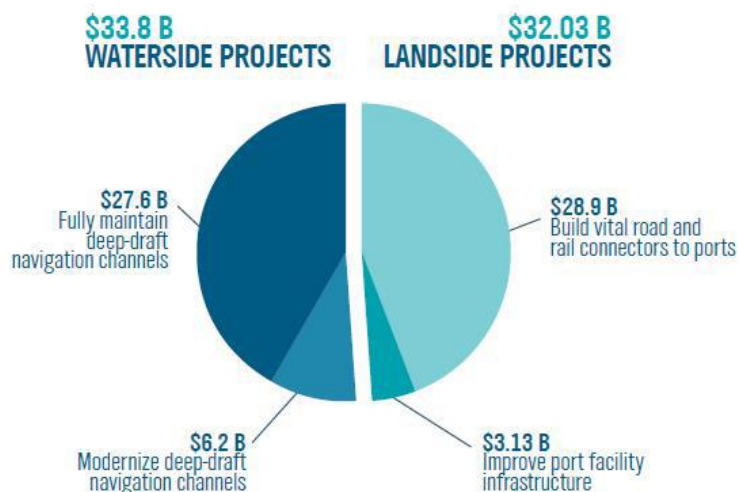
# USA SEAPORT INVESTMENT NEEDED



## Building America's 21st Century Seaport Infrastructure

For job creation and  
economic growth

**\$66 BILLION INVESTMENT NEEDED FOR PORT RELATED INFRASTRUCTURE**



### What's at risk without adequate investment in U.S. seaport infrastructure?

**\$4 trillion**  
potential GDP loss by 2025

**\$575 billion**  
cost to American businesses  
and households by 2025

**\$14 billion**  
added cost of traded products due  
to shallow harbors by 2040

**\$3,400**  
loss per household by 2025

**\$155 billion**  
amount ports and their private sector  
partners will invest between  
2016 and 2020



Growing trade in America requires investment in our nation's infrastructure to meet the demand for safe, efficient movement of freight. These investments create jobs and economic growth. Ports have identified \$66 billion necessary for port-related infrastructure over the next 10 years. It's time to invest to Keep America Moving.



@seaportsdeliverprosperity



@AAPA\_Seaports



[www.aapa-ports.org/movingamerica](http://www.aapa-ports.org/movingamerica)



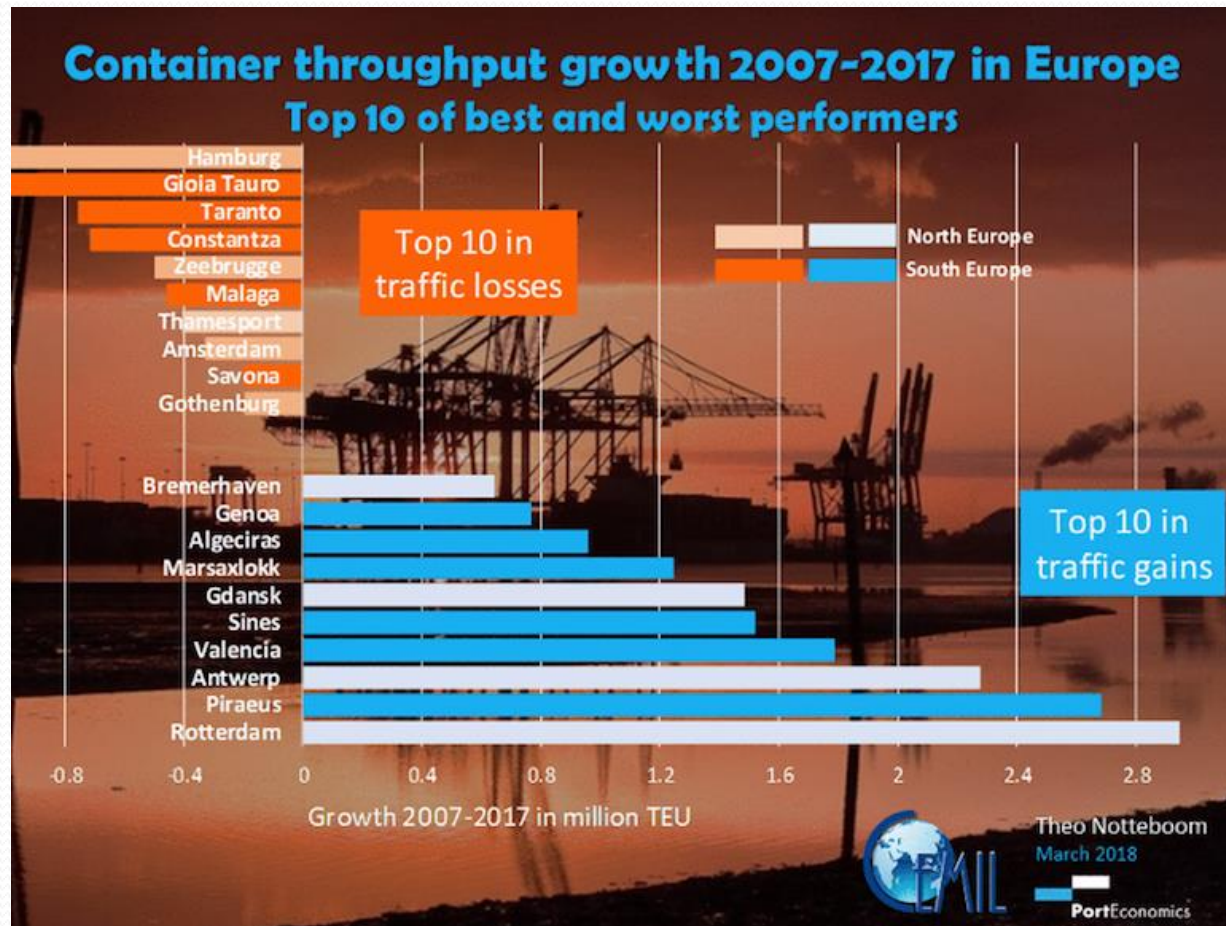
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# EUROPEAN MARKET



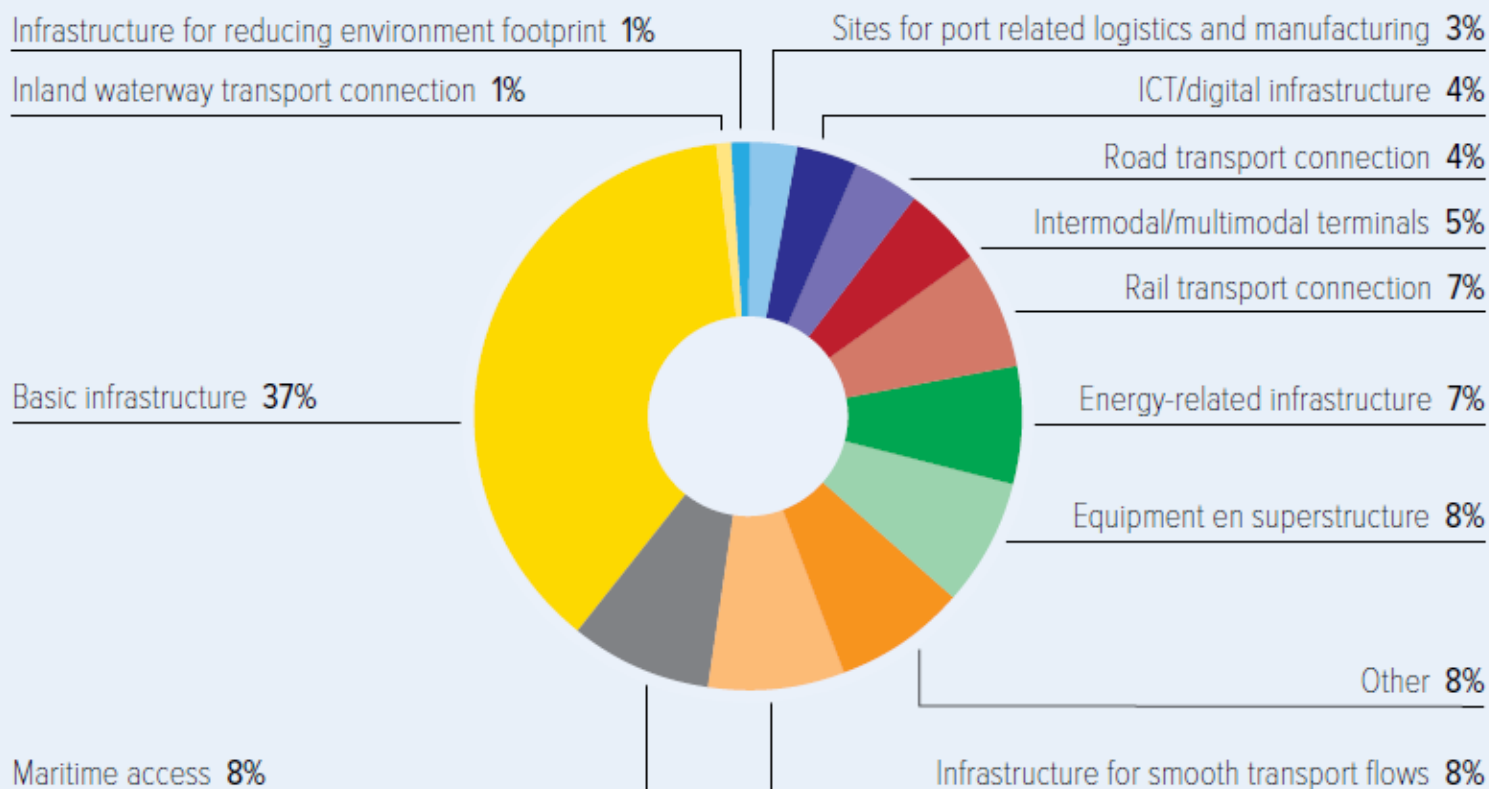
SOURCE: ECOPORTS

# EUROPEAN MARKET



SOURCE: ECOPORTS

## PERCENTAGE OF PROJECTS SUBMITTED PER PORT INFRASTRUCTURE CATEGORY



The estimate of the size of the investment pipeline of the ports that provided data is around 32 €billion<sup>50</sup> until 2027. If we exclude UK from the analysis, the ports that replied represent over 68% of EU throughput. An extrapolation based on throughput allows for a rough estimate of the investment pipeline of all EU-27 seaports excluding the British ones at around 48 €billion, or around 5 €billion per year during the period 2018–2027.

**TABLE 8: RESULTS OF PORT MANAGING BODIES (PMB) AS APPLICANTS TO THE CALLS 2014-2017**

<b>CEF CALLS 2014-2017</b>	<b>Maximum EU budget (€)</b>	<b>Proposals submitted by PMBs</b>	<b>PMBs' proposals recommended for funding</b>	<b>Budget granted (€)</b>	<b>% funding to PMB</b>
Calls 2014	11.930.000.000	95	30	524.513.401	4%
Calls 2015	7.560.000.000	40	14	187.925.504	2%
Calls 2016	1.939.500.000	26	12	64.847.407	3%
Call 2017	1.000.000.000	7	6	83.216.772	8%
<b>Total Calls</b>	<b>22.429.500.000</b>	<b>168</b>	<b>62</b>	<b>860.503.084</b>	<b>4%</b>

Source: Analysis based on INEA's data and publicly available information on project evaluation

**TABLE 14: FUNDING GRANTED ACCORDING TO TRANSPORT MODE LABEL**

Mode of Transport	Eligible proposals	Funded proposals	Funding granted 2014-2017	Share
Rail Transport	540	253	16.741.776.854	72%
Maritime transport	223	84	973.154.067	4%
Multimodal (incl. combined transport)	221	77	1.274.068.120	5%
Road Transport	271	134	1.684.669.285	7%
Inland waterway transport	103	52	1.656.573.354	7%
Air transport	126	53	1.047.795.618	4%
<b>Total</b>	<b>1.484</b>	<b>653</b>	<b>23.378.037.298</b>	

Source: Analysis based on INEA's data and publicly available information on project evaluation

**TABLE 15: ESTIMATE OF FUNDING GRANTED TO PORT MANAGING BODIES  
PER COUNTRY**

Country <sup>67</sup>	2014	2015	2016	2017	Total projects	Share 2014-2017
France	155.761.026	539.880	0	0	156.300.906	18%
Poland	13.238.184	118.713.559	477.870	19.914.950	152.344.563	18%
Croatia	30.222.600	32.841.238	35.205.931	0	98.269.768	11%
Spain	72.871.645	7.424.352	647.500	2.169.444	83.112.941	10%
Italy	18.956.743	5.380.450	1.415.650	39.546.444	65.299.287	8%
Netherlands	59.892.118	0	321.065	0	60.213.183	7%
UK	44.368.443	0	0	0	44.368.443	5%
Ireland	38.518.056	0	0	4.477.600	42.995.656	5%
Sweden	22.412.874	0	8.699.685	10.388.333	41.500.893	4%
Finland	17.925.000	0	8.742.500	6.720.000	33.387.500	2%
Slovenia	13.655.743	1.743.533	0	0	15.399.276	2%
Estonia	14.650.000	0	0	0	14.650.000	1%
Germany	8.692.050	0	2.410.685	0	11.102.735	1%
Romania	0	10.791.706	0	0	10.791.706	1%
Greece	0	5.308.783	1.415.650	0	6.724.433	1%
Portugal	4.123.485	2.322.672	0	0	6.446.157	1%
Lithuania	5.097.621	0	0	0	5.097.621	0,4%
Denmark	1.452.070	0	1.890.000	0	3.342.070	0,4%
Cyprus	2.675.743	0	441.920	0	3.117.663	0,3%
Bulgaria	0	2.859.330	0	0	2.859.330	0,3%
Malta	0	0	2.857.887	0	2.857.887	0,3%
Belgium	0	0	321.065	0	321.065	0,04%
Latvia	0	0	0	0	0	0
<b>TOTAL</b>	<b>524.515.415</b>	<b>187.927.519</b>	<b>64.849.423</b>	<b>83.218.789</b>	<b>860.503.083</b>	

Source: Analysis based on INEA's data and publicly available information on project evaluation

# PIRAEUS PORT AUTHORITY

PIRAEUS PORT SECTORS in 2 HARBORS:

- Container Terminals
  - Logistics
  - Shipyards
  - Car Terminal
  - Ferries (Ro-Pax)
  - Cruise
  - Tourism – Cultural → New for Piraeus Port
  - Bunkering → Not operated by Cosco
- Core Business
- New Business for Cosco

# PIRAEUS PORT



# PASSENGER PORT



# COMMERCIAL PORT



# STRATEGY OF PPA

- Strengthen the core business of the group: Containers, Shipyards, Logistics
- Exploration of the possibility of business expansion in new sectors (Cruise, Ro-Ro/Ferries) in order to achieve further growth to and from China
- Creation of conditions for possible participation of the company in the management or ownership status of other ports and / or terminals

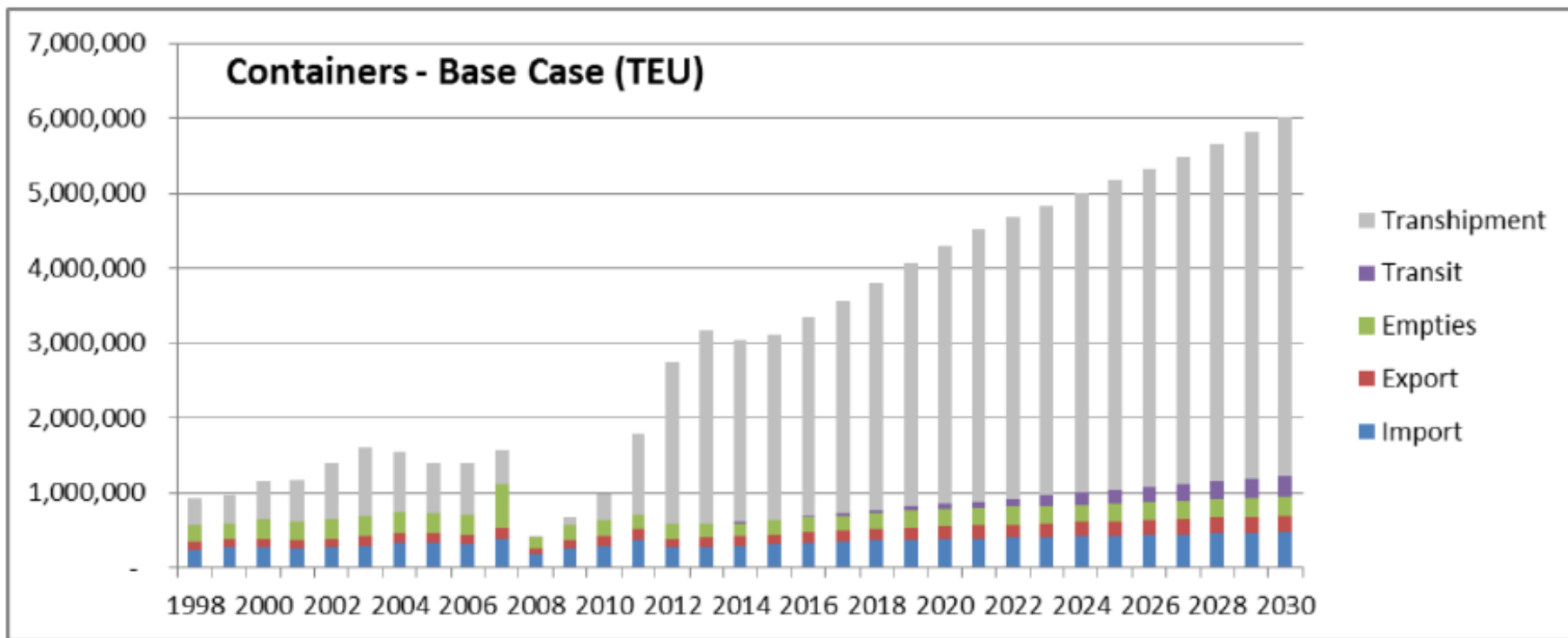
The success of the PPA strategy is critical and reflects the overall strategy of COSCO SHIPPING

# LONG TERM TARGETS of PPA

PPA 's targets for the long-term development of Greece are:

- To make Greece the SE gate of passenger homeport and (O & D trading) and Europe's transit hub (passenger transit and cargo transshipment)
- To revive and develop the ever-shrinking shipbuilding industry
- To strengthen the local economy through the multiplier effect of the planned large investments

# ESTIMATION- Containers

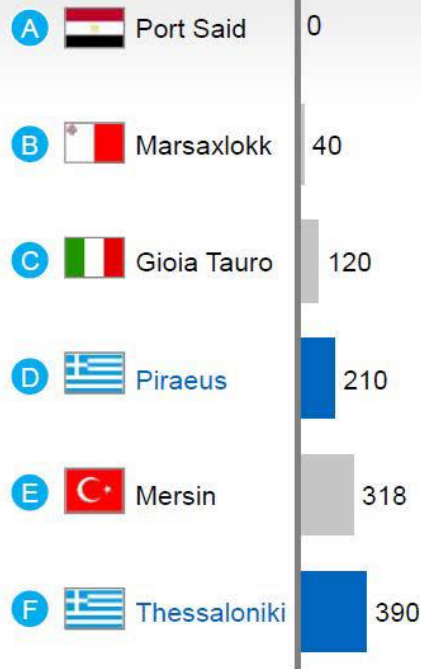


Source: MTBS "Piraeus-Port Business Market Due Diligence"

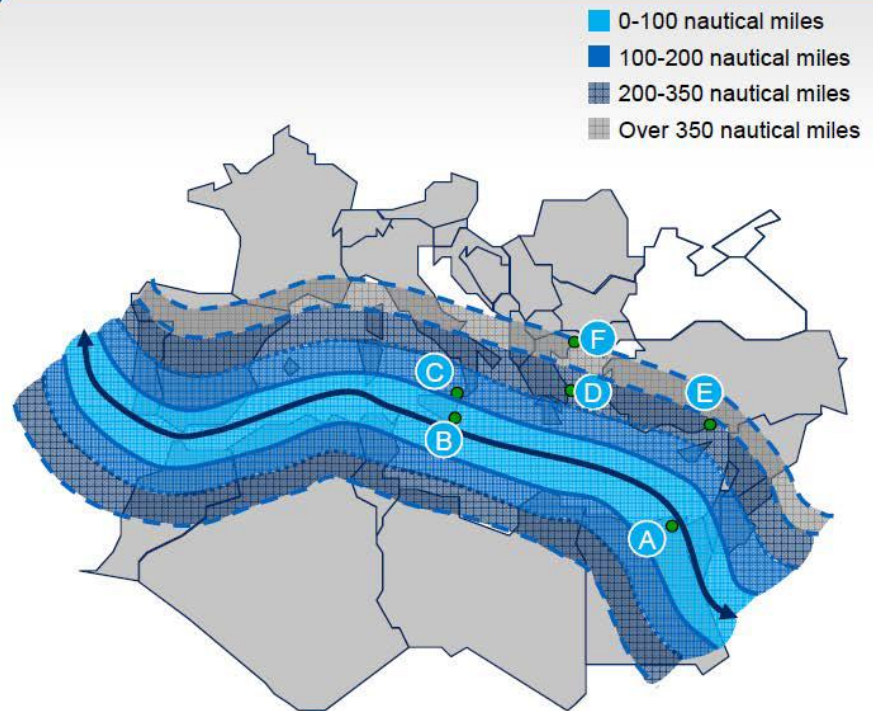
# DISTANCE FROM MAIN MED ROUTE

Piraeus port is well positioned to capture the lion share of the trade flow in the Mediterranean area

Distance from main Med route  
Nautical miles



Relative position of key competitive ports for Transshipment flows



Source: McKinsey PPA Strategic Plan

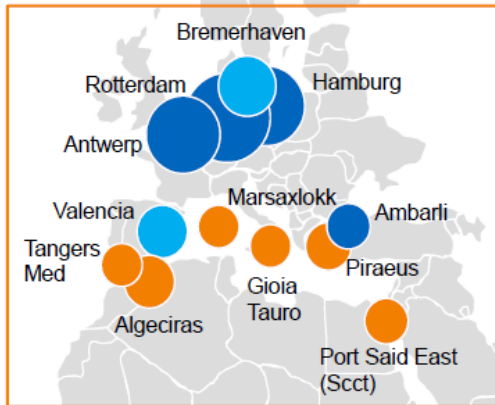
# TRANSHIPMENT

GAINING TRANSSHIPMENT SHARE

Piraeus port is one of the leading transshipment ports, especially in East Mediterranean Sea

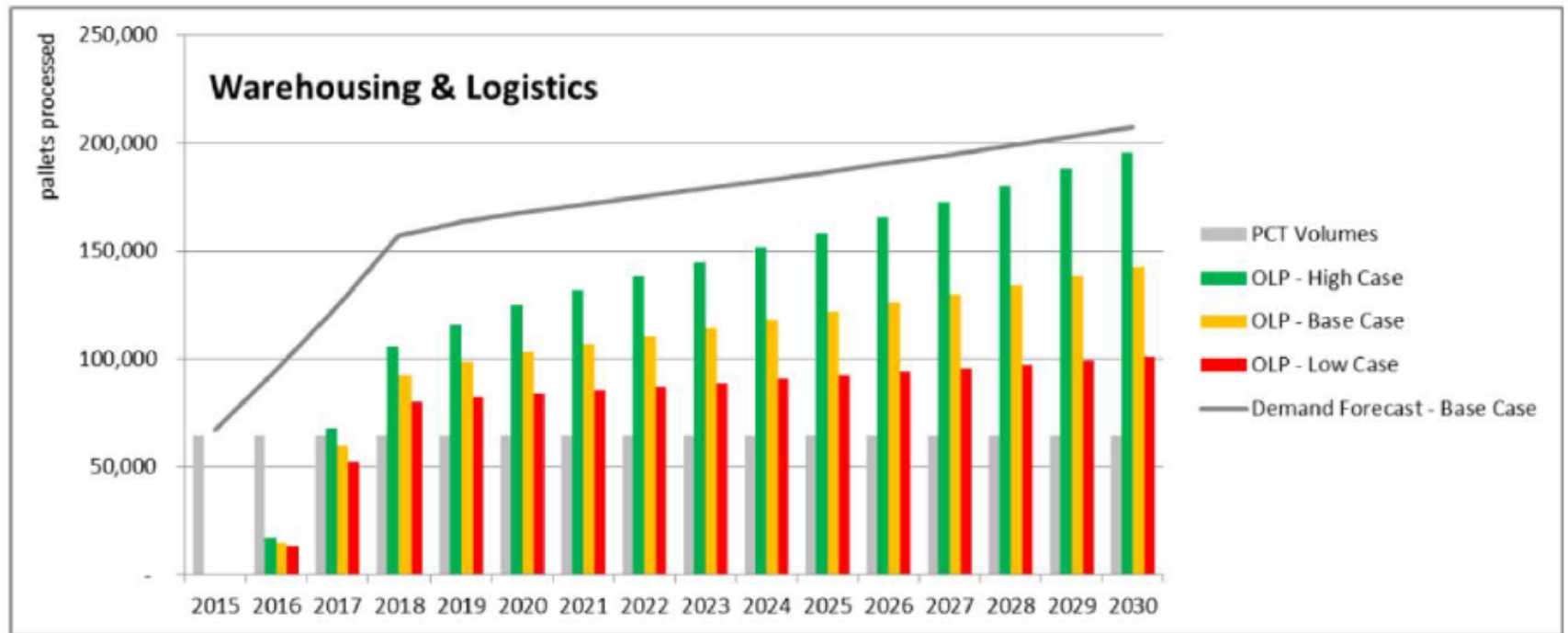
● Total volume Transshipment %: >75% 50%-75% 25%-50% <25%

Port name	Total volume Mn, 2015	T/S <sup>1</sup> %, 2015	T/S <sup>1</sup> volume mn, 2015
Rotterdam	12.2	34.5%	4.2
Algeciras	4.5	91.6%	4.1
Hamburg	8.8	40.2%	3.5
Bremerhaven	5.5	61.0%	3.4
Marsaxlokk	3.1	96.0%	3.0
<b>Piraeus</b>	<b>3.4</b>	<b>84.0%</b>	<b>2.9</b>
Antwerp	9.7	28.5%	2.8
Tangers Med	3.0	96.7%	2.8
Port said(scct)	3.0	86.2%	2.6
Valencia	4.6	55.3%	2.5
Gioia Tauro	2.5	94.5%	2.4
Ambarli	3.1	44.0%	1.4



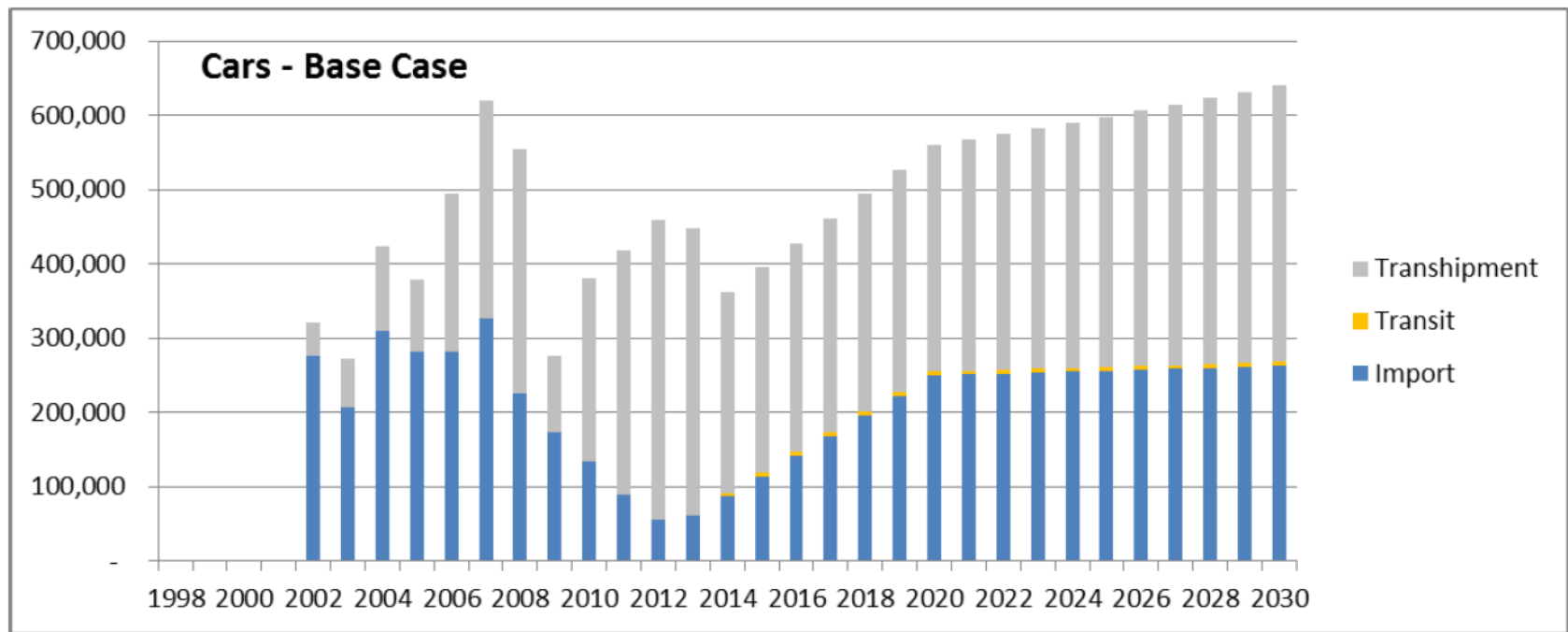
Source: McKinsey PPA Strategic Plan

# ESTIMATION-Logistics



Source: MTBS “Piraeus-Port Business Market Due Diligence”

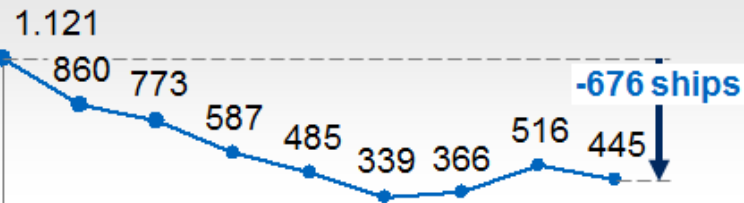
# ESTIMATION-CARS



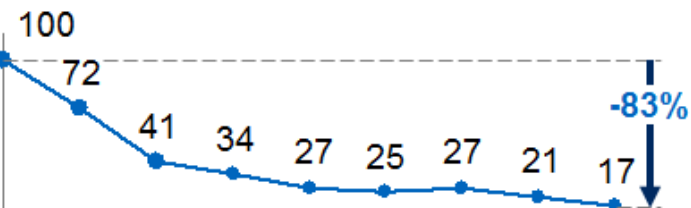
Source: MTBS "Piraeus-Port Business Market Due Diligence"

# SHIPYARDS

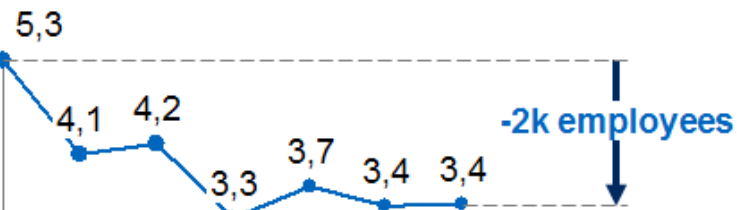
Repair activity  
(Number of ships)



GVA<sup>1</sup>  
(Indexed to 100 for 2008)



Employment<sup>2</sup>  
('000s of employees)



2008 09 10 11 12 13 14 15 2016

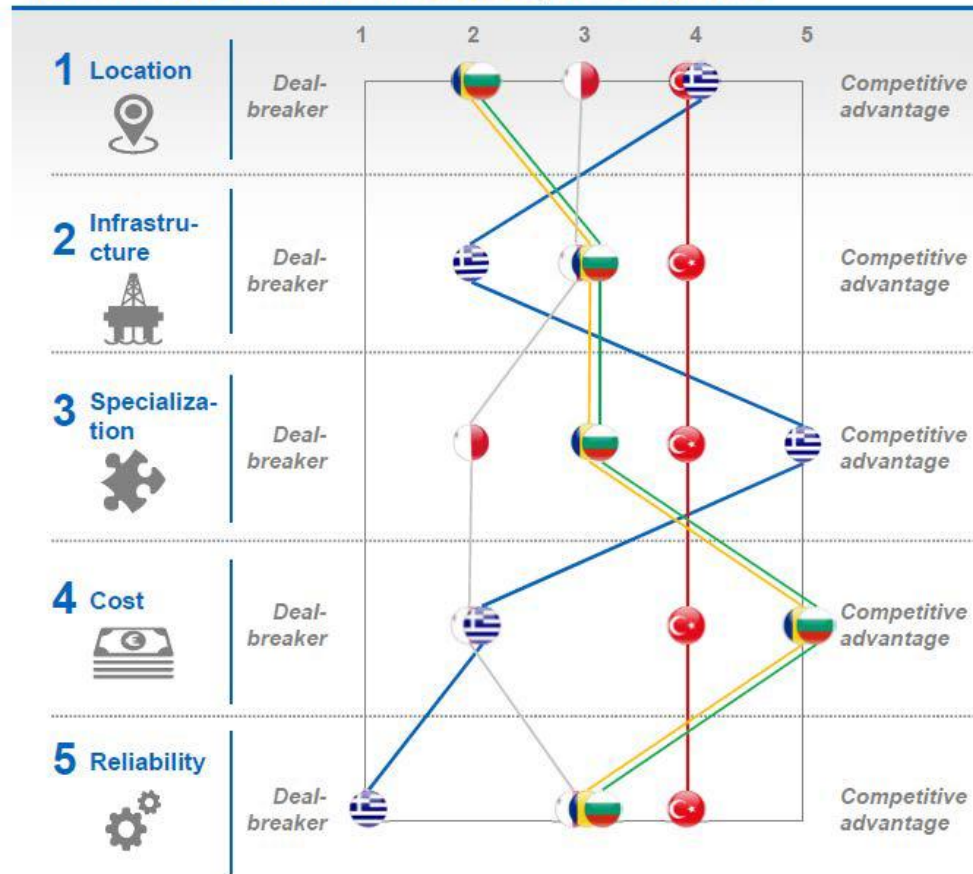
<sup>1</sup> Gross Value Added (contribution of the ship repair activity to the GDP of Greece)

<sup>2</sup> Includes only actual employees (not unpaid persons employed)

Source: McKinsey PPA Strategic Plan

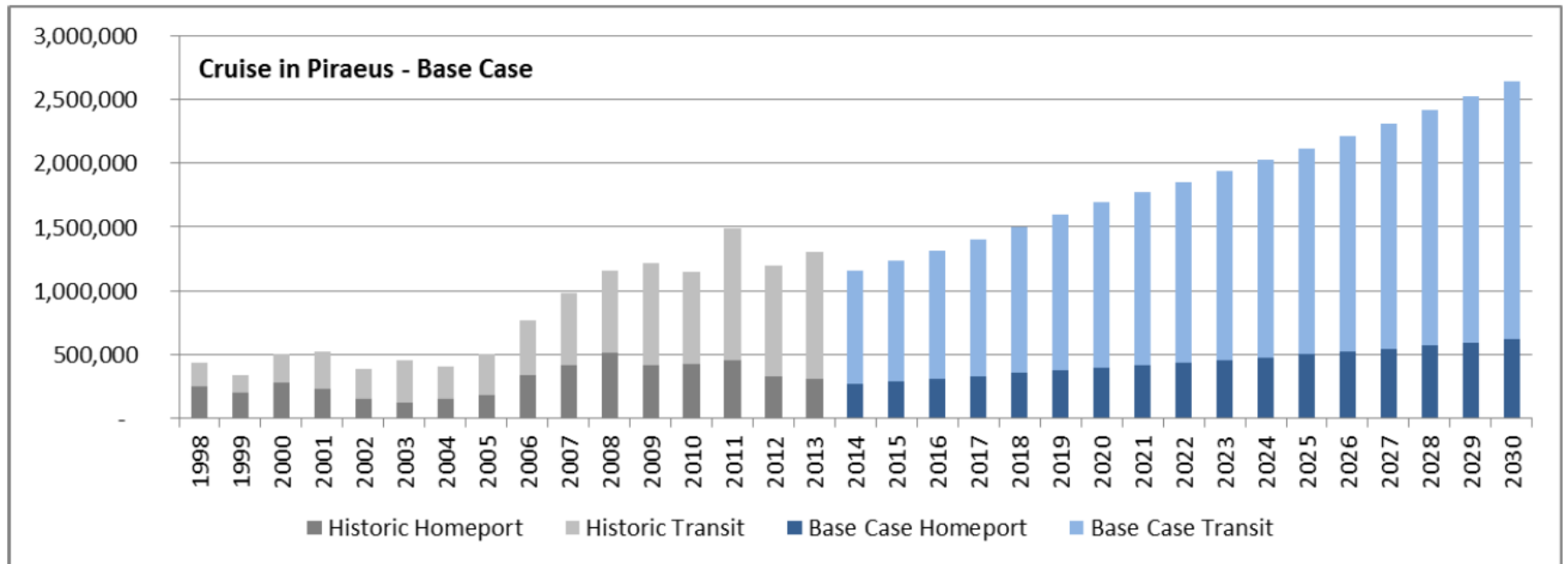
# SHIPYARDS COMPETITION

Key repair demand drivers    Feedback from Greek ship-owners/operators



Source: McKinsey PPA Strategic Plan

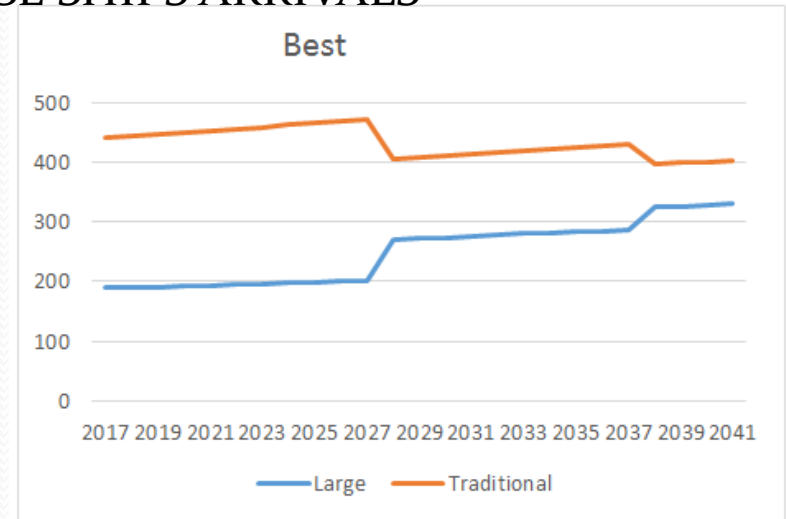
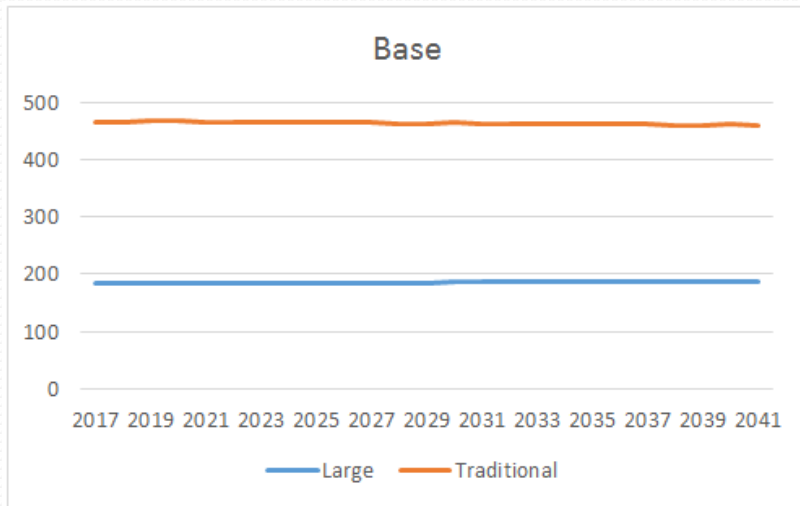
# ESTIMATION- CRUISE



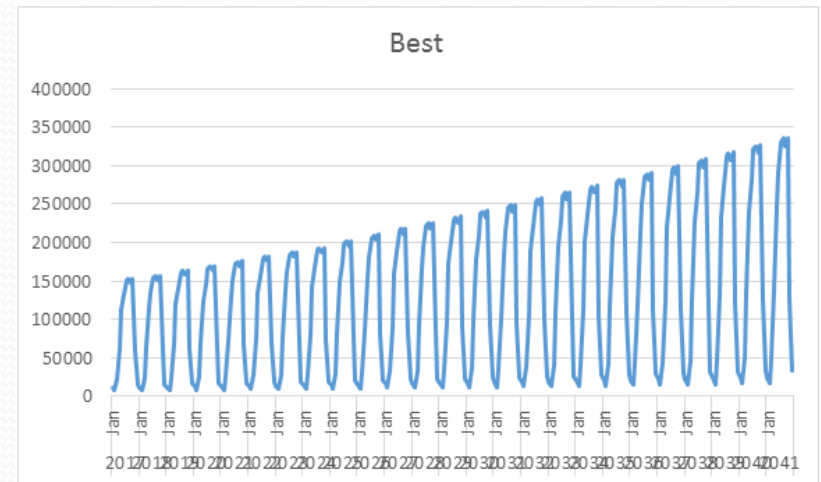
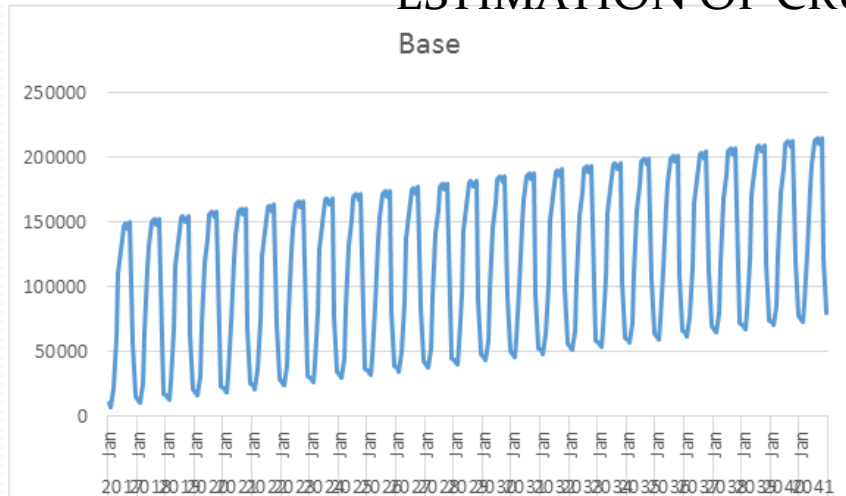
Source: MTBS “Piraeus-Port Business Market Due Diligence”

# CRUISE TERMINAL

## ESTIMATION OF CRUISE SHIPS ARRIVALS

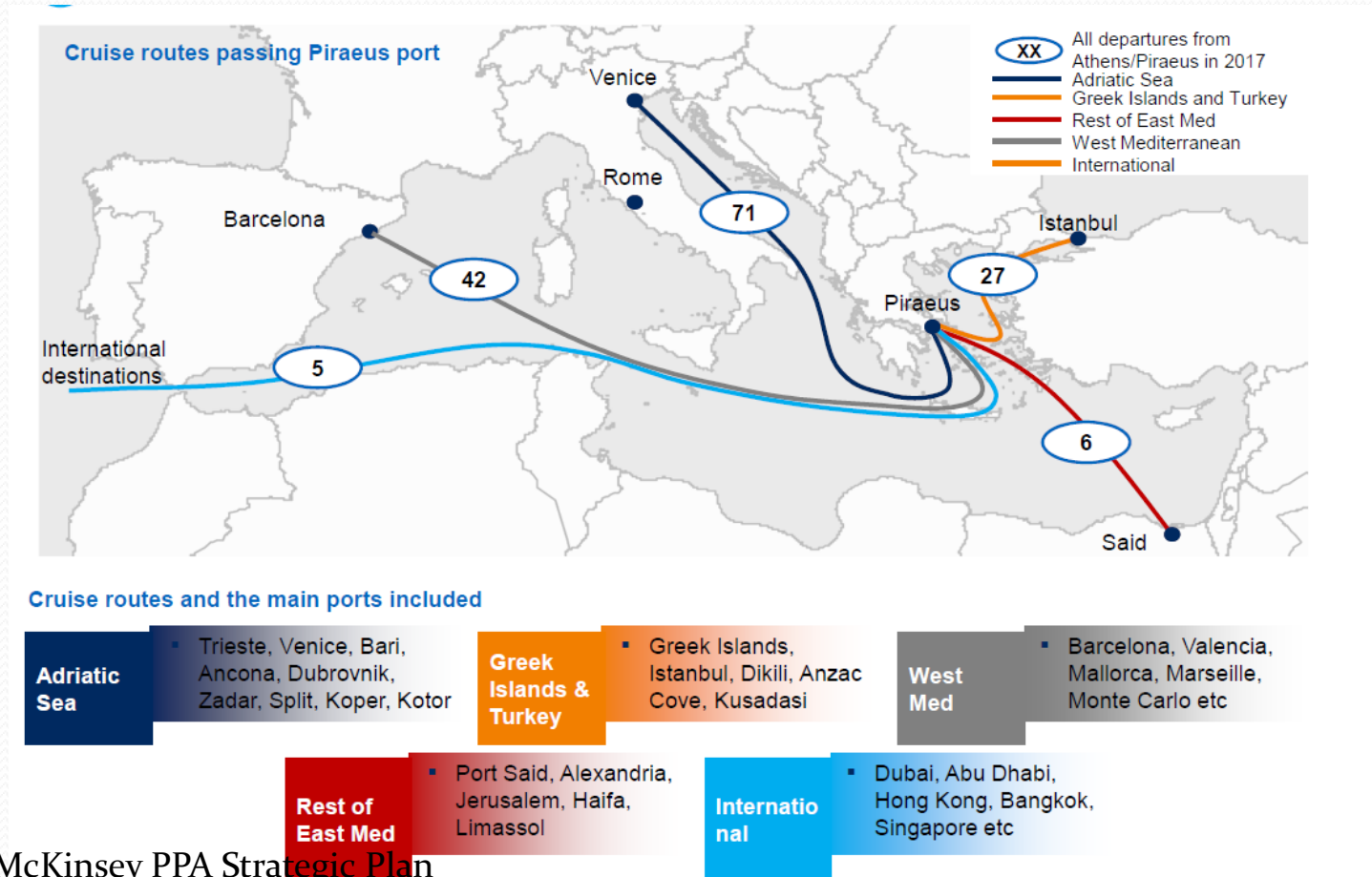


## ESTIMATION OF CRUISE PASSENGERS ARRIVALS



SOURCE: MASTER PLAN PPA 2018

# CRUISE ROUTES PASSING PIRAEUS PORT



Source: McKinsey PPA Strategic Plan

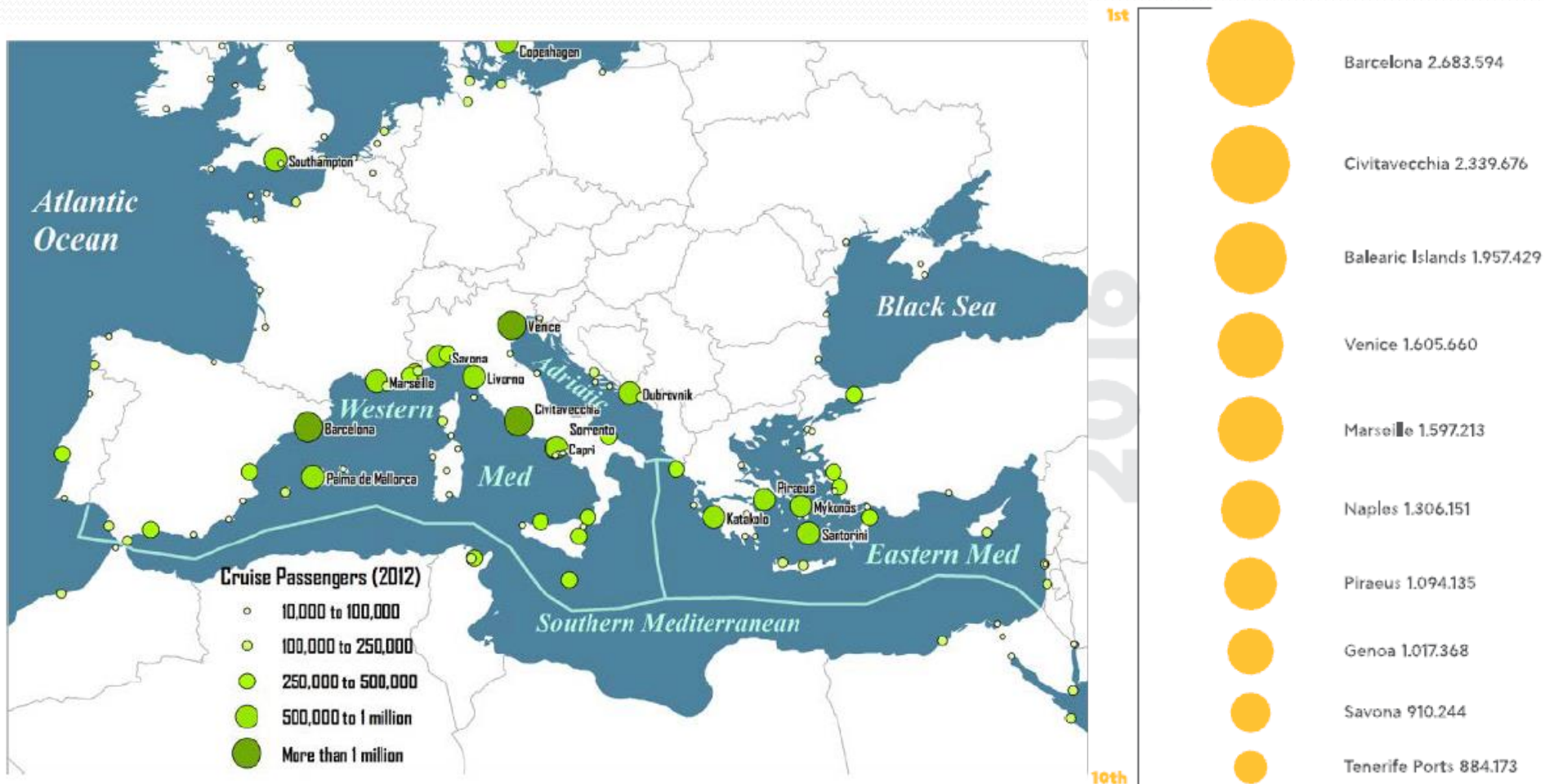
# HOME PORTS

**Home-ports of all the cruise lines calling Piraeus**  
# of sailings chose certain port as home port in 2017



Source: McKinsey PPA Strategic Plan

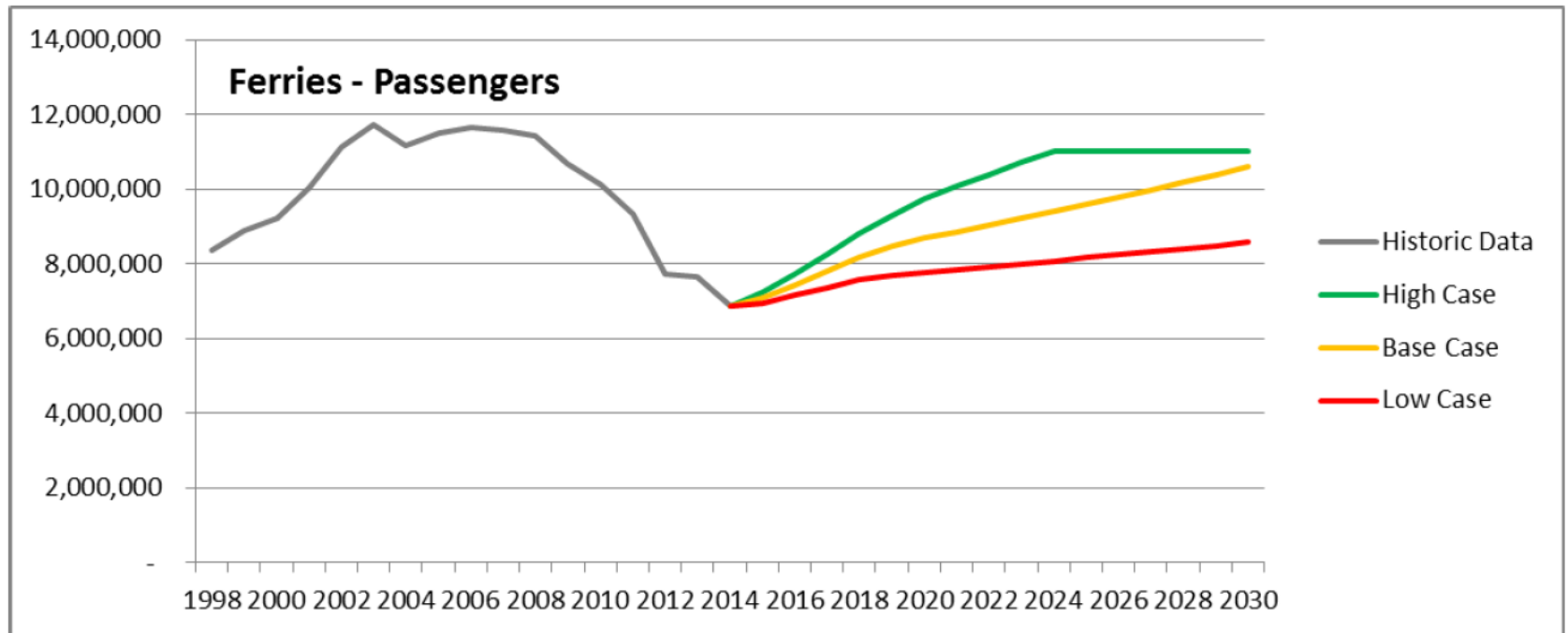
# CRUISE IN THE MEDITERRANEAN



2016

SOURCE: MASTER PLAN PPA 2018

# ESTIMATION -FERRIES



Source: MTBS "Piraeus-Port Business Market Due Diligence"



# PIRAEUS PORT MASTER PLAN 2016-2021

Proposed development interventions:

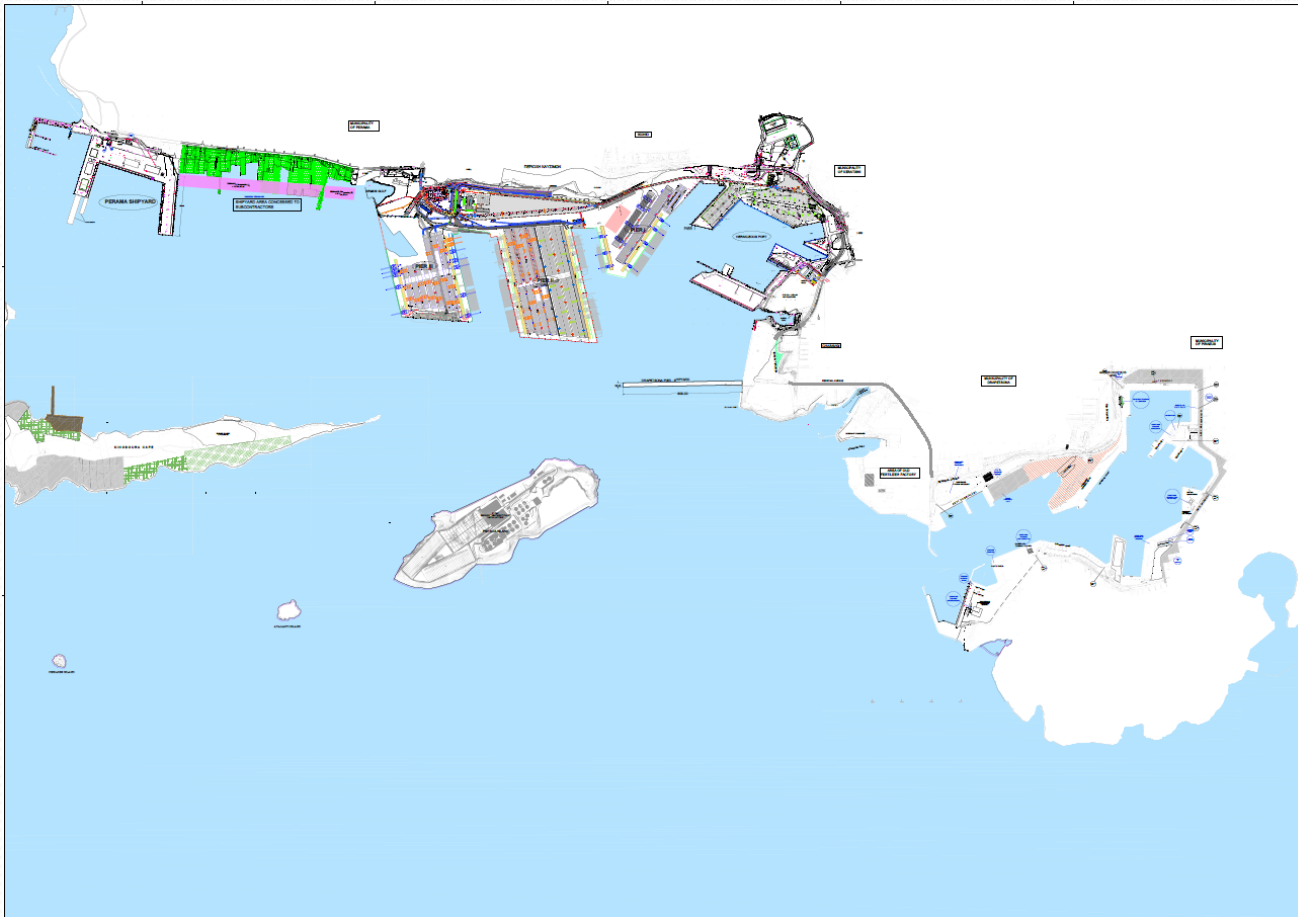
- 11 Mandatory Enhancements
- 9 Additional Enhancements

# INTERVENTIONS AREAS

The areas of intervention are summarized as follows:

1. Increasing the capacity of the Cruise Sector
2. Improvement and creation of hosting facilities for tourists
3. Increasing the efficiency - productivity of container terminals
  - a. docks and equipment
  - b. the traffic of vehicles
  - c. Logistics (Warehouse)
4. Improve and modernize the Shipbuilding repair infrastructure

# EXISTING SITUATION



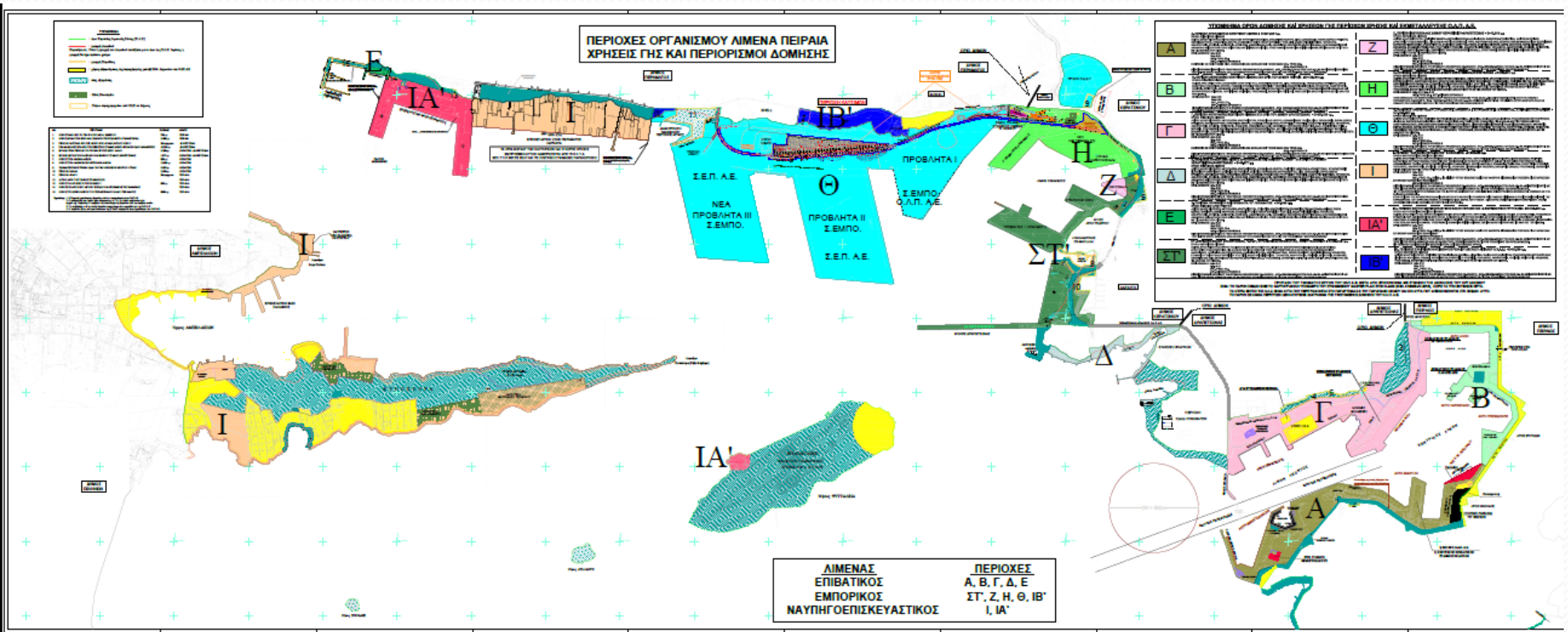
SOURCE: MASTER PLAN PPA 2018

# PROPOSED INFRASTRUCTURE

Development in the following sectors:

- Container Terminals : Pier III, renovation of Pier I
- Bunkering: New terminal
- Logistics: New warehouses, traffic improvement
- Shipyards: New floating docks and new installation for mega Yachts
- Car Terminal: terminal expansion and parking buildings
- Ferries (Ro-Pax): renovation, dredging, maintenance
- Cruise: 2 new berths, cruise centers
- Tourism – Cultural: 4 Hotels, a museum, Eco buses etc

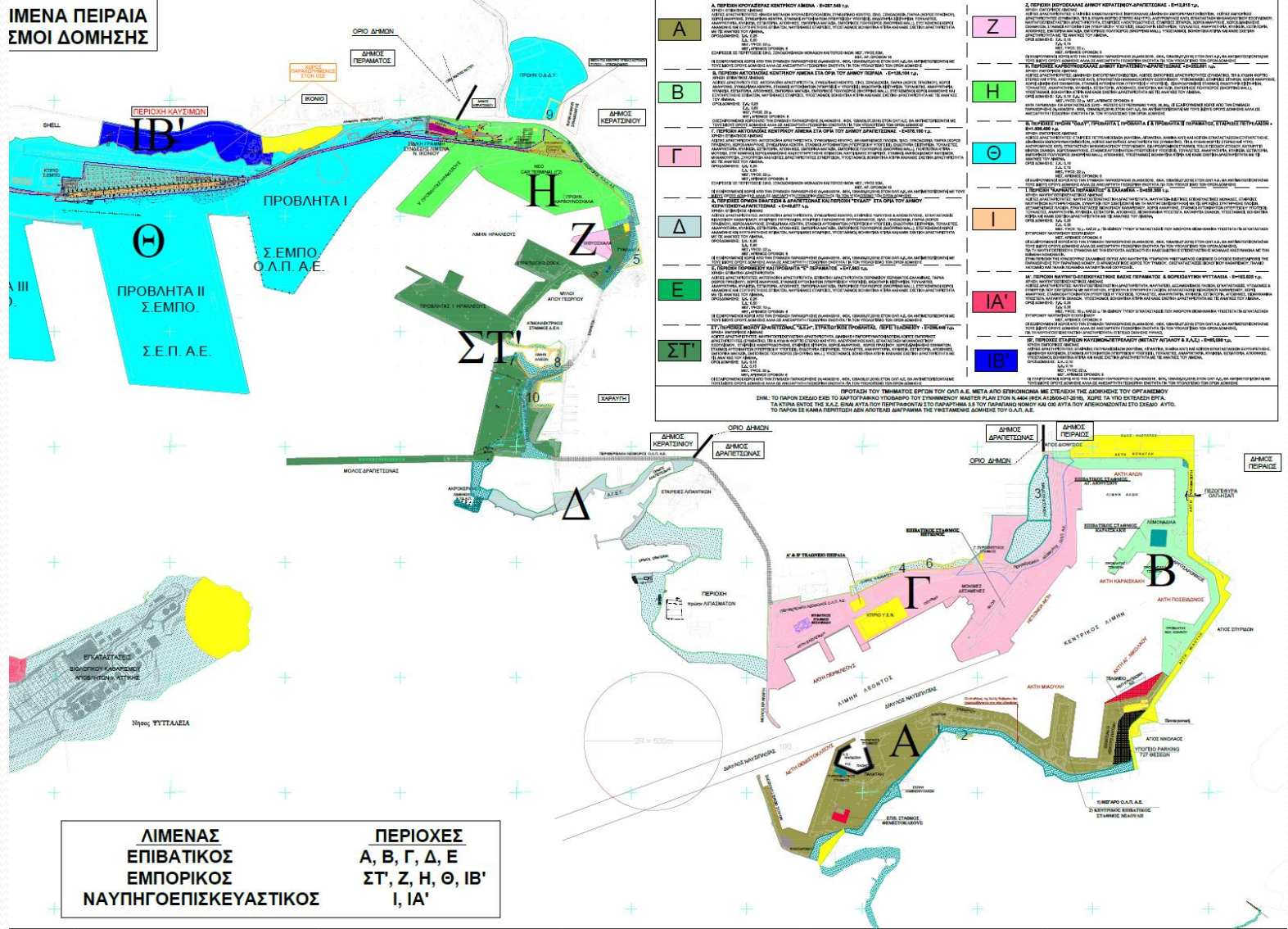
# LAND USES



SOURCE: MASTER PLAN PPA 2018



## ΙΜΕΝΑ ΠΕΙΡΑΙΑ ΣΜΟΙ ΔΟΜΗΣΗΣ



# MANDATORY ENHANCEMENTS

No	Mandatory Enhancements (according to 2016CA)	Reference Cost (in euros)
1	Passenger Port Expansion (Southern Zone Phase A)	136.283.800
2	Repair of Pier I RMG yard area and cranes	8.000.000
3	Conversion of Pentagonal Warehouse into Cruise Passenger Terminal	1.500.000
4	Underground Linkage of Car Terminal with Former ODDY Area	5.000.000
5	Port Infrastructure Improvement and Maintenance	15.000.000
6	Supply of Equipment	25.000.000
7	Dredging of Central Port	8.000.000
8	Studies	5.000.000
9	Construction of New Oil Pier	15.000.000
10	Car Terminal Expansion (Herakleous)	20.000.000
11	Improvement Infrastructure of Ship repair Zone (incl. floating docks)	55.000.000
	<b>Total of Mandatory Enhancements:</b>	<b>293.783.800</b>

# ADDITIONAL ENHANCEMENTS

No	Additional Enhancements	Reference Cost (in euros)
1	Development of New Warehouse at ex-ODDY area (80.000m2)	60.000.000
2	Construction of two five level car parking buildings 75.000m2 each, in the G2 area	27.000.000
3	Eco Buses	5.000.000
4	Construction of a new Cruise Center	80.000.000
5	Reformation of Pagoda buidling into a 5* hotel and conference centre	60.000.000
6	Reformation of 2 Warehouses into 4* and 5* hotels	48.000.000
7	Conversion of masonry wall warehouse in Akti Vasiliadi into a museum	7.000.000
8	Construction of Ship Yard for Mega Yaghts in G1 area	18.000.000
9	Construction of a new 5* Hotel in Porto Leone	20.000.000
	<b>Total of Additional Enhancements:</b>	<b>325.000.000</b>

The Master Plan of the Port of Piraeus shows various infrastructure projects. Key features include:

- 1. [A.E.01]:** ΕΠΕΚΤΑΣΗ ΕΠΙΒΑΤΙΚΟΥ ΑΙΜΕΝΑ (ΝΟΤΙΑ ΣΤΟΙΧ. ΒΑΣΗ Α)
- 2. [M.E.02]:** ΕΠΙΣΚΕΥΗ ΔΑΠΕΔΩΝ ΕΓΚΑΤΑΓΕΝΕΣ ΚΑΙ ΓΕΡΑΝΟΕΓΚΕΤΑΣΤΡΩΣΕΩΝ ΣΤΟΒΑΔΙΑΣ (RMG CRANES) ΠΡΟΒΑΝΤΑ Ι ΣΤΑΘΜΟΥ ΕΜΠΟΡΕΥΜΑΤΟΚΙΒΩΤΙΣΜΟΥ
- 3. [A.E.03]:** ΝΕΑ ΑΠΟΘΗΚΗ ΣΤΗΝ ΠΡΩΗΝ ΠΕΡΙΟΧΗ ΤΟΥ ΟΔΑΥ, ΕΚΤΑΣΗΣ 80.000m²
- 4. [M.E.04]:** ΥΠΟΓΕΙΑ ΟΔΙΚΗ ΣΥΝΔΕΣΗ ΣΤΑΘΜΟΥ ΔΙΑΚΙΝΗΣΗΣ ΑΥΤΟΚΙΝΗΤΩΝ ΜΕ ΠΡΩΗΝ ΧΩΡΟ ΟΔΑΥ
- 5. [M.E.05]:** ΕΠΕΚΤΑΣΗ ΣΤΑΘΜΟΥ ΔΙΑΚΙΝΗΣΗΣ ΑΥΤΟΚΙΝΗΤΩΝ (ΑΙΜΕΝΑ ΣΗΡΑΛΕΟΥΣ)
- 6. [M.E.06]:** ΚΑΤΑΣΚΕΥΗ ΝΕΟΥ ΠΡΟΒΑΝΤΑ ΠΕΤΡΕΛΑΙΟΕΛΕΩΝ
- 7. [A.E.07]:** ΚΑΤΑΣΚΕΥΗ ΝΑΥΤΙΚΩΝ ΟΡΓΕΥΣΤΗΡΩΝ ΓΙΑ ΜΕΓΑ ΥΑΧΤΣ ΣΤΗΝ ΠΕΡΙΟΧΗ Γ1 (G1)
- 8. [M.E.08]:** ΚΑΤΑΣΚΕΥΗ ΝΕΟΥ ΠΡΟΒΑΝΤΑ ΠΕΤΡΕΛΑΙΟΕΛΕΩΝ
- 9. [M.E.09]:** ΚΑΤΑΣΚΕΥΗ ΝΕΟΥ ΠΡΟΒΑΝΤΑ ΠΕΤΡΕΛΑΙΟΕΛΕΩΝ
- 10. [M.E.10]:** ΒΕΛΤΙΩΣΗ ΥΠΟΔΟΜΩΝ ΝΑΥΤΙΚΩΝ ΟΡΓΕΥΣΤΗΡΩΝ ΣΤΗΝ ΠΕΡΙΟΧΗ ΔΕΣΑΜΕΝΩΝ
- 11. [A.E.11]:** ΚΑΤΑΣΚΕΥΗ ΔΥΟ ΚΤΙΡΙΩΝ ΣΤΑΘΜΕΣ ΑΥΤΟΚΙΝΗΤΩΝ ΕΚΤΑΣΗΣ 75.000m² ΕΚΑΣΤΟ, ΣΤΗΝ ΠΕΡΙΟΧΗ G2
- 12. [A.E.12]:** ΚΑΤΑΣΚΕΥΗ ΔΥΟ ΚΤΙΡΙΩΝ ΣΤΑΘΜΕΣ ΑΥΤΟΚΙΝΗΤΩΝ ΕΚΤΑΣΗΣ 75.000m² ΕΚΑΣΤΟ, ΣΤΗΝ ΠΕΡΙΟΧΗ G2
- 13. [A.E.13]:** ΜΕΤΑΤΡΟΠΗ ΤΗΣ ΠΕΡΙΩΧΗΣ ΑΠΟΘΗΚΗΣ ΣΕ ΜΟΥΣΕΙΟ ΣΤΗΝ ΑΚΤΗ ΒΑΛΙΔΕΙΑΣ
- 14. [A.E.14]:** ΜΕΤΑΤΡΟΠΗ ΤΗΣ ΠΕΡΙΩΧΗΣ ΑΠΟΘΗΚΗΣ ΣΕ ΕΠΙΒΑΤΙΚΟ ΣΤΑΘΜΟ ΚΡΟΥΑΖΙΕΡΑΣ
- 15. [A.E.15]:** ΑΝΑΔΙΑΜΟΡΦΩΣΗ ΤΟΥ ΚΤΙΡΙΟΥ ΤΗΣ ΠΑΥΣΙΑΣ ΣΕ 9' ΞΕΝΟΔΟΧΕΙΟ ΚΑΙ ΣΥΝΕΔΡΙΑΚΟ ΚΕΝΤΡΟ
- 16. [A.E.16]:** ΚΑΤΑΣΚΕΥΗ 9' ΞΕΝΟΔΟΧΕΙΟΥ ΣΤΟ ΠΟΡΤΟ ΧΕΩΝΕ
- 17. [A.E.17]:** ΚΑΤΑΣΚΕΥΗ ΕΠΙΒΑΤΙΚΟΥ ΣΤΑΘΜΟΥ ΚΡΟΥΑΖΙΕΡΑΣ
- 18. [A.E.18]:** ΚΑΤΑΣΚΕΥΗ ΕΠΙΒΑΤΙΚΟΥ ΣΤΑΘΜΟΥ ΚΡΟΥΑΖΙΕΡΑΣ

SOURCE: MASTER PLAN PPA 2018

# INVESTEMENTS

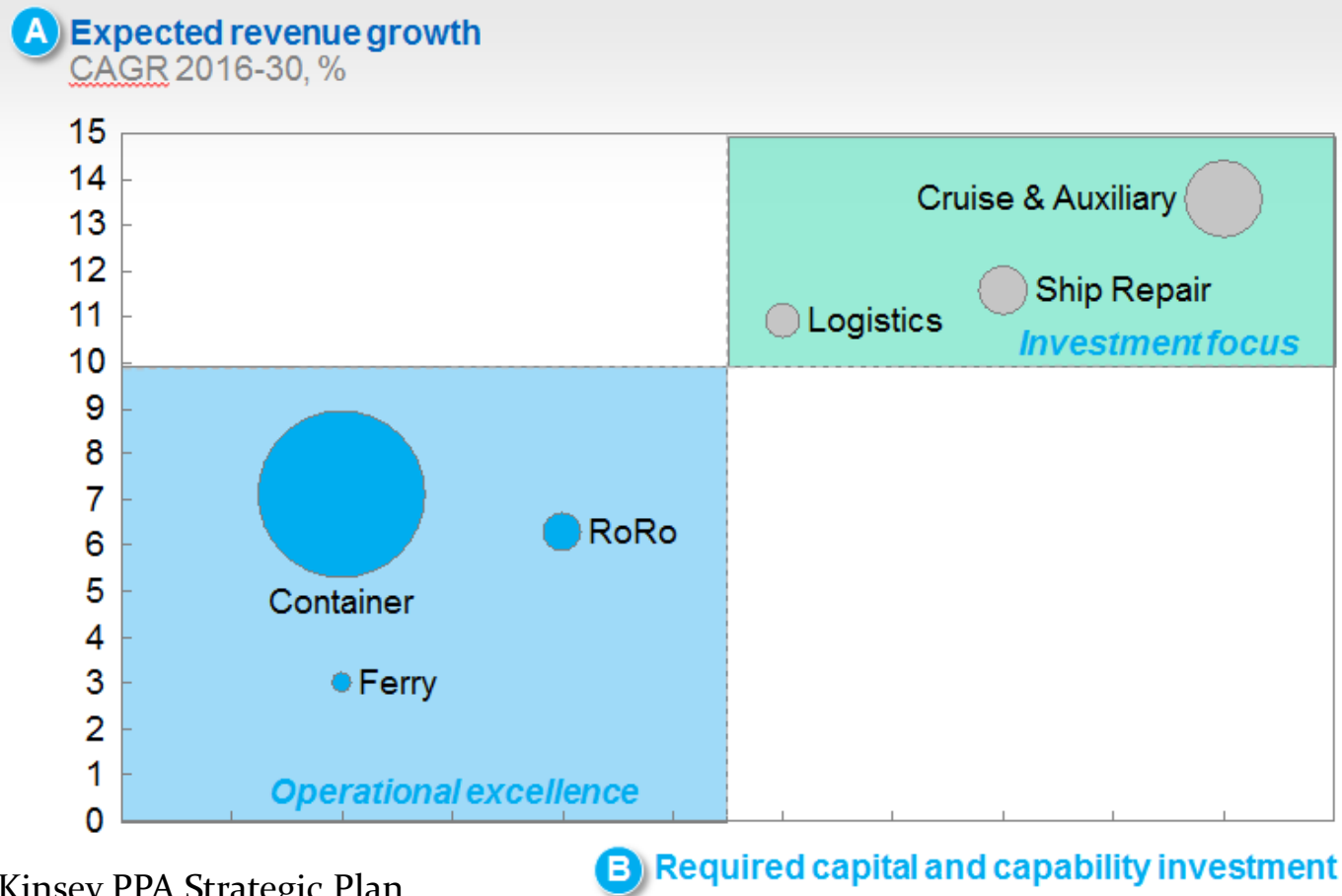
No	Enhancements	Reference Cost (in euros)
1	Mandatory	<b>293.783.800</b>
2	<b>Additional</b>	<b>325.000.000</b>
	<b>Total</b>	<b>618.783.800</b>

# INVESTEMENTS

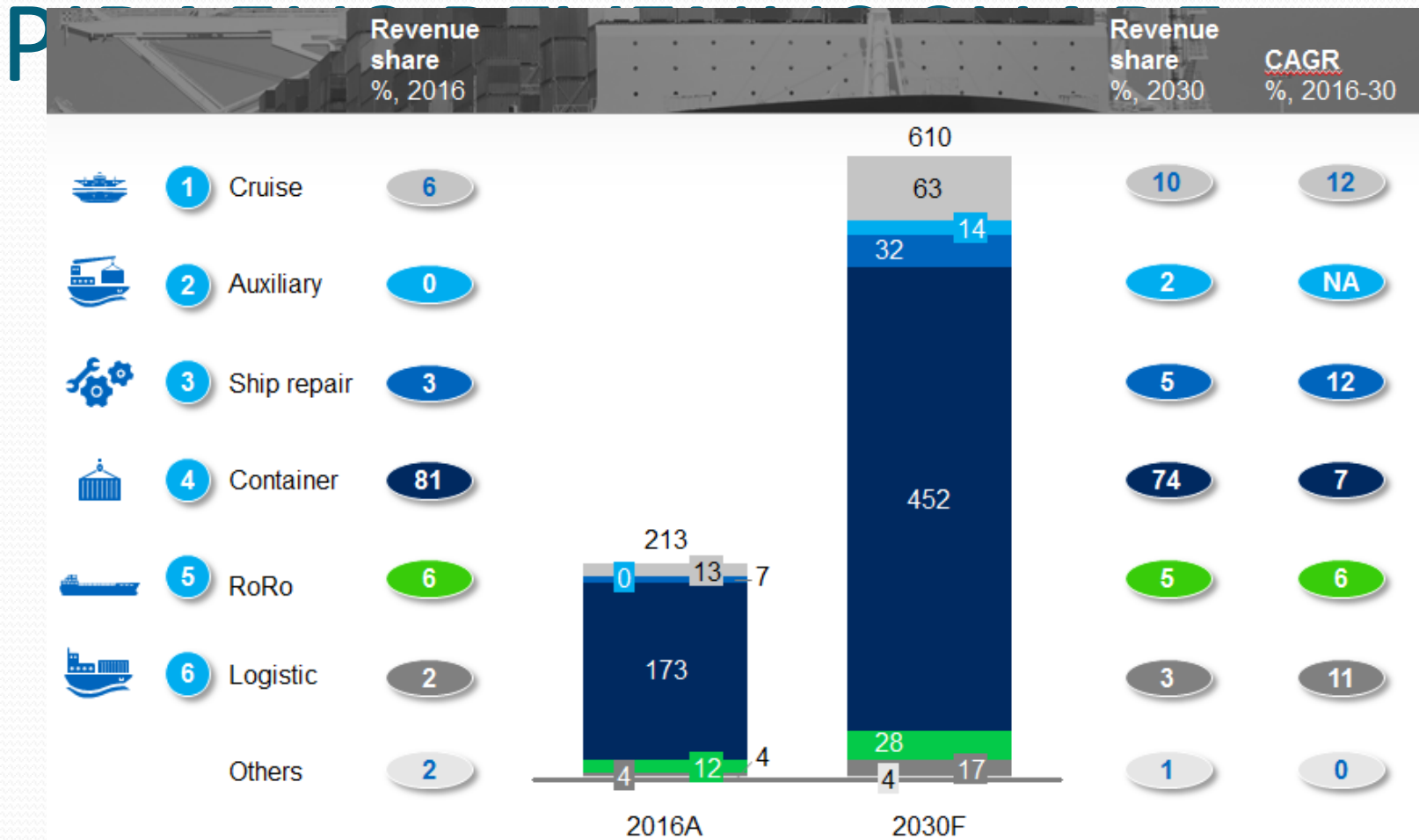
2017 – 2020 investments		Capex	PPA share	»	2021 – 2030 investments	Capex	PPA share
Cruise & Auxiliary	▪ New berth in the southern area	136	7		▪ Conversion of Pentagonal warehouse into terminal	2	2
	▪ New terminal in the southern area	30	15				
	▪ Dredging of the central port	8	8				
	▪ Two hotels	60	30				
	▪ Outlet shopping area	30	15				
	▪ Other commercials	45	23				
Ship repair	▪ Floating dock and Perama upgrade	55	55				
	▪ Conversion of car terminal	6	6				
	▪ Renovation of <u>Drapetsona</u> jetty	4	4				
Container	▪ Pier 1 repair of <u>RMG</u> yard and crane	8	8		▪ Pier 1 <u>ERTG</u>	25	25
	▪ Pier 3 new oil pier	19	19		▪ Pier 2 <u>ERTG</u>	5	5
	▪ Supply of equipment	25	25		▪ Pier 3 <u>Armos</u> gulf	3	3
RoRo	▪ Car terminal expansion ( <u>Herakleous</u> )	20	20		▪ Pier 4	TBD	TBD
Logistics	▪ Underground tunnel	5	5		▪ Two 5 level parking	27	27
	▪ <u>ODDY</u> warehouse	30	30				
TOTAL		481	270				
		276	147				

Source: McKinsey PPA Strategic Plan

# EXPECTED REVENUE GROWTH



Source: McKinsey PPA Strategic Plan



Source: McKinsey PPA Strategic Plan

# PIRAEUS PORT PERSPECTIVES

Piraeus Port is expected to handle:

- 6.2 b TEU's /year (4<sup>th</sup> in Europe)
- 2.5 million cruise passenger/year
- 12 million passengers/year (Ferries and Ro-Pax)

Piraeus Port is expected to:

- Enter in tourist business
- Extend the ship repair industry

# CONCLUSION

- Perspectives
- Challenges
- Competition
- Geopolitical threats



THANK YOU FOR YOUR  
ATTENTION!