



Port Competition and Economic Regulation

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- Evolving Landlord System
- Relatively Few Players in the Market
- Little Competition

General View Egypt's Main Ports

- Seven Main Ports
- Supported by Freight Corridors and Minimally by Rail System
- Minimal Use of Inland Water Transport



- Private Port Operators in Sokhna and East Port Said
- Private and Public Terminal Operators in Damietta, Alexandria, and Dekheila
- Inequitable Playing Field



- Economic oversight—fair and competitive services
 - Operational performance
 - Pricing behavior
- Technical oversight—navigation and safety
- Environmental oversight—hazardous materials, safety incidents, land use planning
- Social or administrative oversight—equitable and just treatment of workers

- Improves performance
 - Level of service (carriers)
 - Reduced dwell time (shippers)
- Economic benefits
 - Jankoff research indicates each day reduction in time = 70 km reduction in distance to market
 - Hummels says each day of delay = added cost of 0.8% of value of goods in the container
 - Kent showed eliminating port inefficiencies increases GDP by nearly 0.5%
 - Current logistics performance in Egypt
 - World Bank Logistics Index
 - *Doing Business* Trading Across Borders Index

- Inter-port competition—for same trades
- Intra-port competition—for same markets
- Intra-terminal competition—for same services within the same terminal
- Evolution towards inter-corridor competition

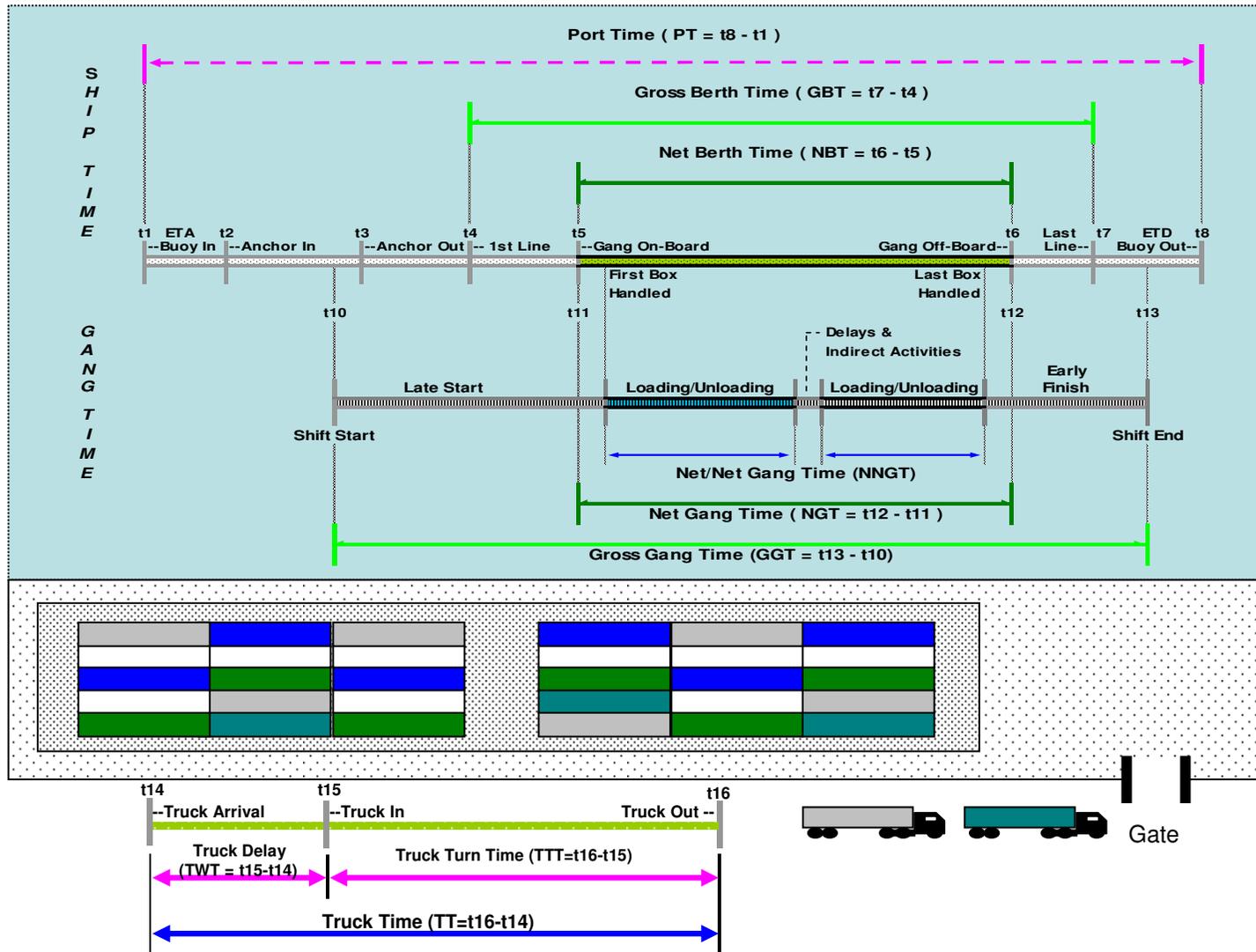
- World Bank
Logistics
Performance Index
– 150-country
assessment

Source: Arvis, Jean-Francois, et al,
*Connecting to Compete – Trade
Logistics in the Local Economy,*
Logistics Performance Index and its
Indicators, The World Bank,
Washington, D.C. 2007;
www.worldbank.org/lpi

Country	Rank
Singapore	1
United Kingdom	9
Canada	10
United States	14
Australia	17
Mexico	56
United Arab Emirates	20
Kuwait	44
Qatar	46
Oman	48
Jordan	52
Tunisia	60
Sudan	64
Iran	78
Morocco	94
Egypt	97
Ethiopia	104
Yemen	112
Syria	135
Algeria	140
Afghanistan	150

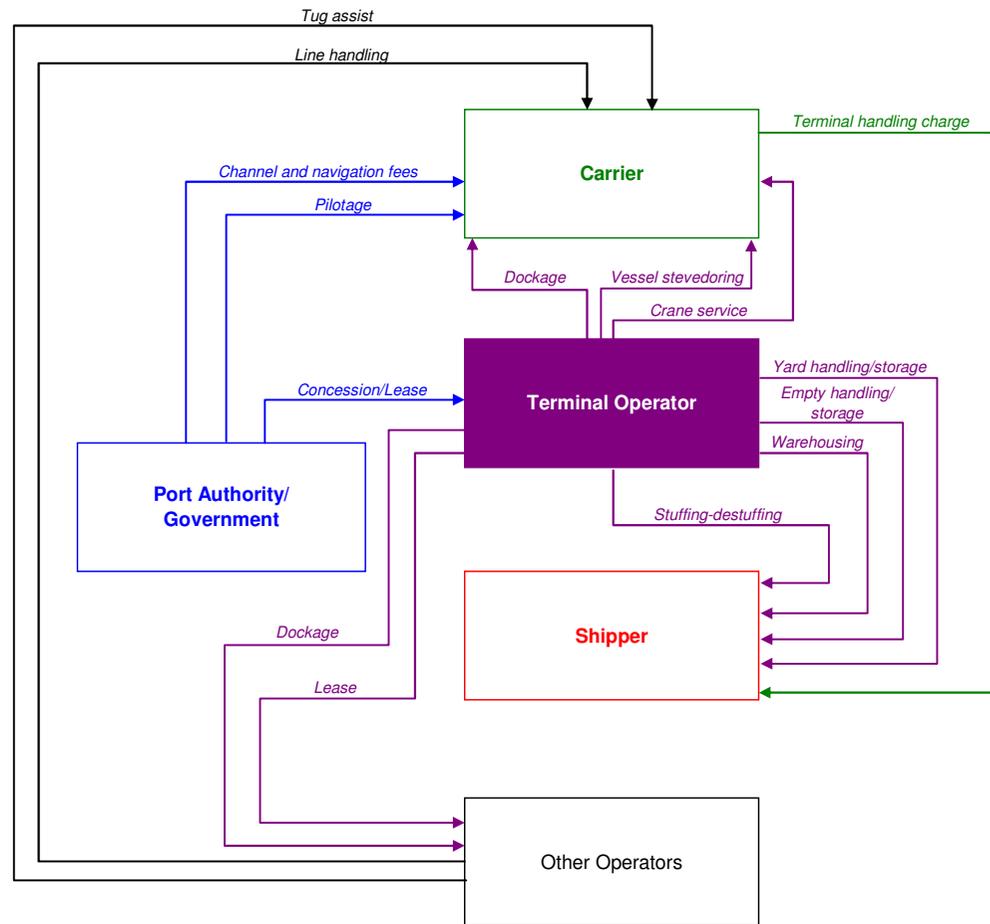
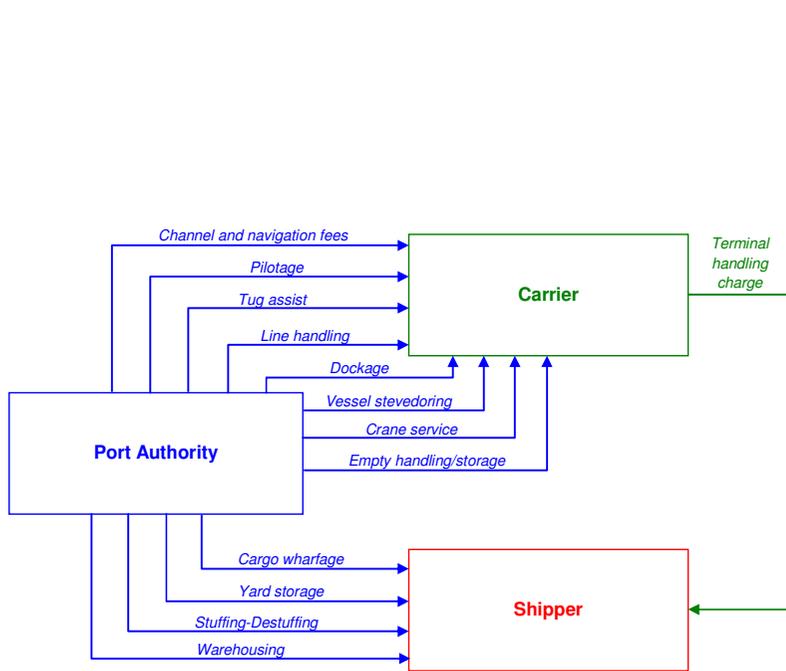
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- Concept of Port Competition Regulation is new
 - Majority of experience in Latin America
 - Colombia, Peru, Chile, and Argentina
 - Latin American experience tied to overall port reform efforts
 - Other regulators established in Australia, New Zealand
 - European Union still wrestling with issue of how to regulate ports across borders of union members
 - US experience is weak -- gives port authorities antitrust exemption
- Growing recognition that regulation is needed
 - South Africa establishing independent port regulator
 - Cape Verde and Portugal now establishing port regulators

- Focuses on market structure/firm behavior/market performance relationship
 - “Structure-conduct-performance” paradigm
- Structure measured by concentration tests
 - Concentration ratio
 - Hirfindahl-Hirschman Index (HHI)



- Concentration Ratios

Market dominance/monopoly threshold

Germany	one firm = 33%
Australia	three firms = 75%
U.K.	one firm = 25%

- US -- Herfindahl-Hirschman Index

- < 1,000 = unconcentrated
- 1,000 - 1,800 = moderately concentrated
- > 1,800 = highly concentrated

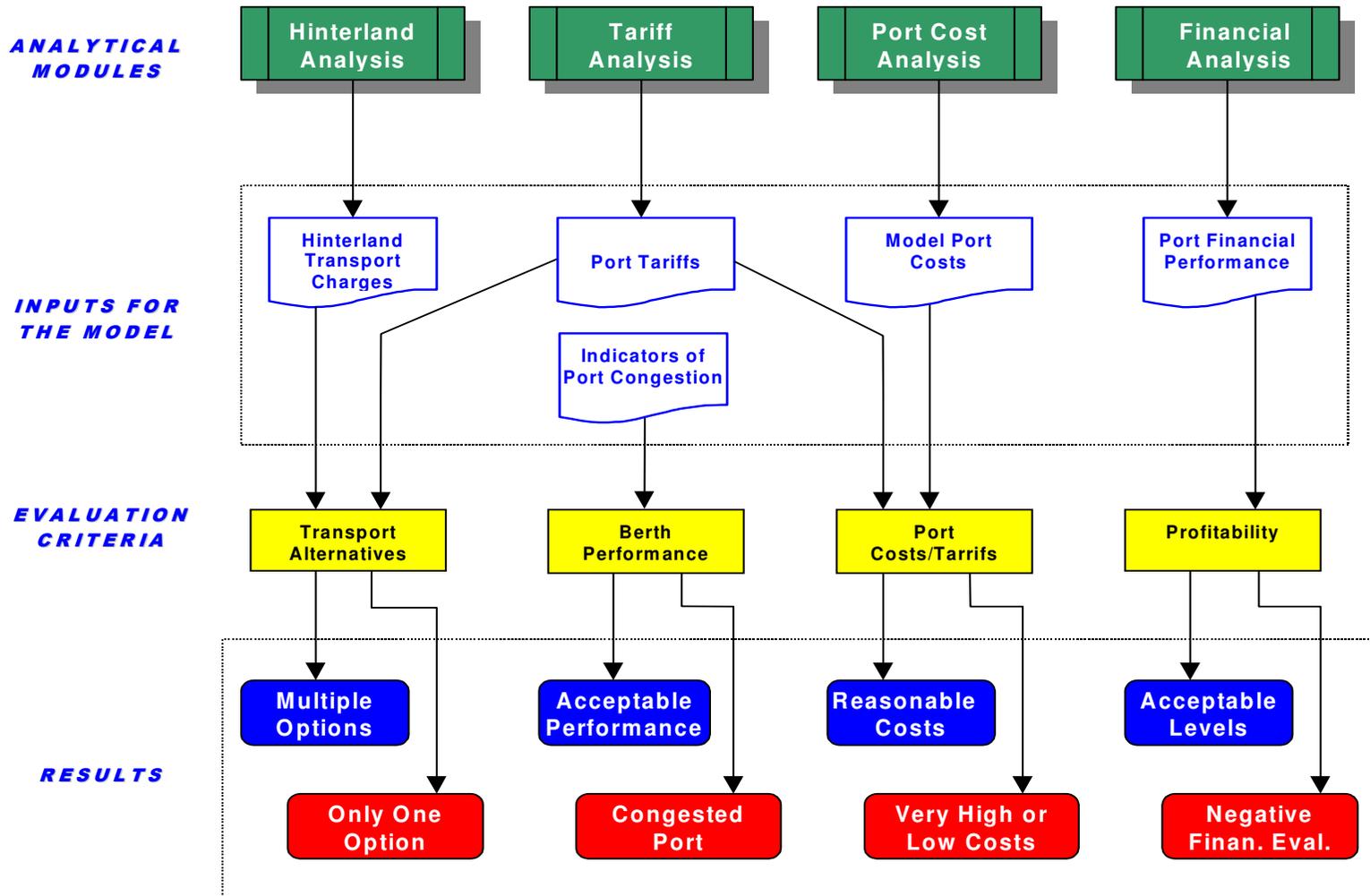
Port Terminal Rank	Containers to/from City A	Market Share (%)
1	636,000	26.47
2	475,000	19.77
3	225,000	9.36
4	213,000	8.86 (CR ₄ = 65)
5	187,000	7.78
6	165,000	6.87
7	145,000	6.03
8	113,000	4.70 (CR ₈ = 90)
9	85,000	3.54
10	67,000	2.79
11	42,000	1.75
12	29,000	1.21 (CR ₁₂ = 99)
13	21,000	0.87
	2,403,000	100.00

Terminal Operator	Share	Test
1	30	
2	25	
3	10	
4	5	CR ₄ = 70
5	5	
6	5	
7	5	
8	4	
9	4	
10	4	
11	4	
12	4	HHI = 1805

- Malaysia
- United Kingdom
- Colombia
- Argentina

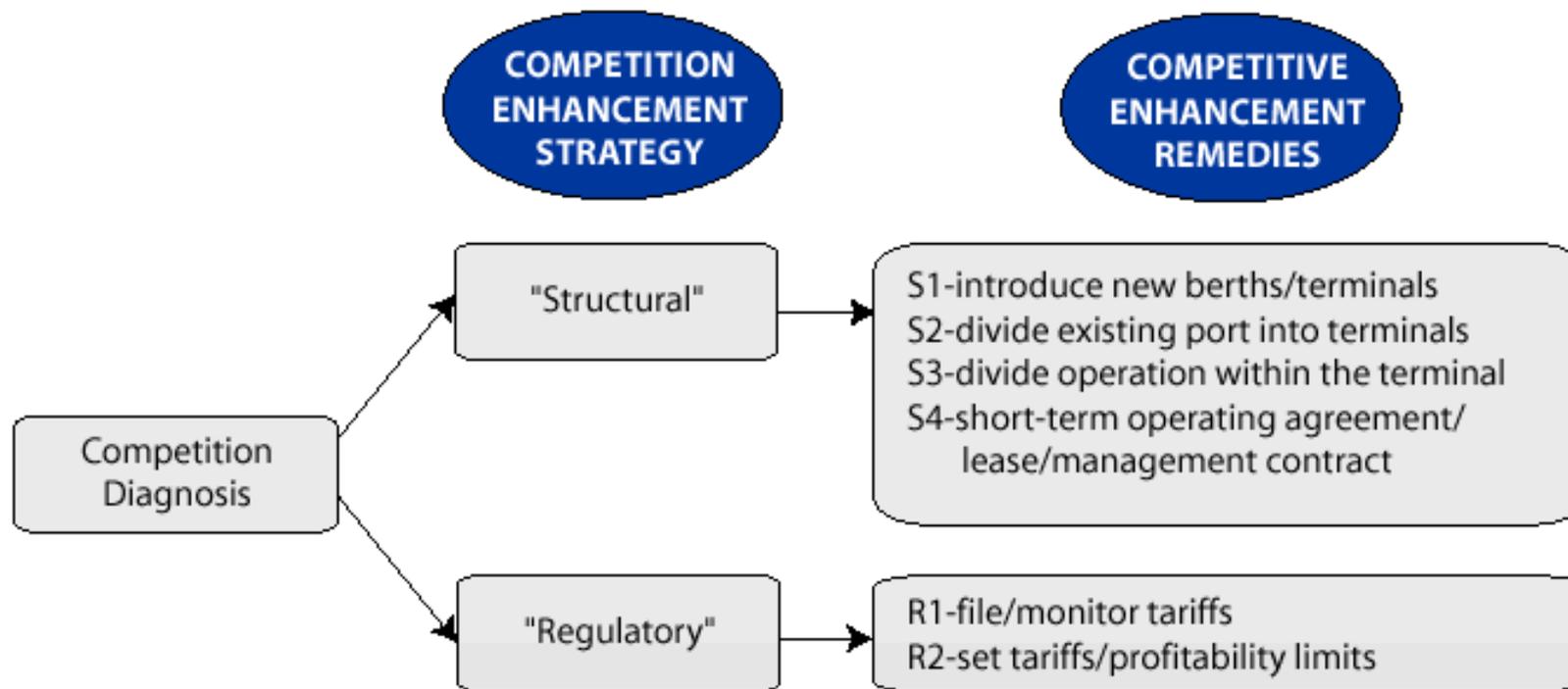
Country	Market Share Test (%)	HHI
Malaysia		
KCT	68.2	
KPM	30.4	
Westport	1.4	5,577
Argentina (Buenos Aires)		
Rio Plata Terminals	38.0	
CTS	20.9	
Exolgan	41.1	3,571
Colombia (Atlantic Coast)		
Barranquilla	15.2	
Santa Marta	14.4	
Cartagena Society	51.2	
CONTEGAR	8.4	
El Bosque	10.8	3,175
United Kingdom		
ABP	33.6	
Felixstowe	40.1	
Tilbury	7.8	
Thamesport	6.9	
Teesport	5.5	2,813
Rest of UK	6.2	

- Transport options
 - Technical capabilities of the ports, available inland connections, overall transport system costs
- Operational performance
 - Berth occupancy, ship waiting time and berth utilization ratio assess the supply/demand balance
- Tariff comparisons with historical rates, with rates at other ports in the same country and with theoretical rates based on “model port” costs
- Financial performance
 - Financial profit should not be “abnormally” high. Return on equity and return on assets relate it to investment.



	Score Weight
◆ Transportation Options	60%
◆ Weekly sailings	
◆ Transport costs (land, port)	
◆ Operational Performance	10%
◆ Berth utilization	
◆ Ship's waiting	
◆ Tariff Comparison	20%
◆ Port's historic rates	
◆ Port cost differential	
◆ Theoretical rates	
◆ Financial Performance	10%
◆ Return on equity	
◆ Return on assets	

- Inefficient and high-cost port services
- Harm to product competitiveness in world markets, carrier penalty surcharges
- Creation of private monopolies
- Illegal practices—pricing or market collusion, predatory pricing, service bundling (tying arrangement), exclusive dealing

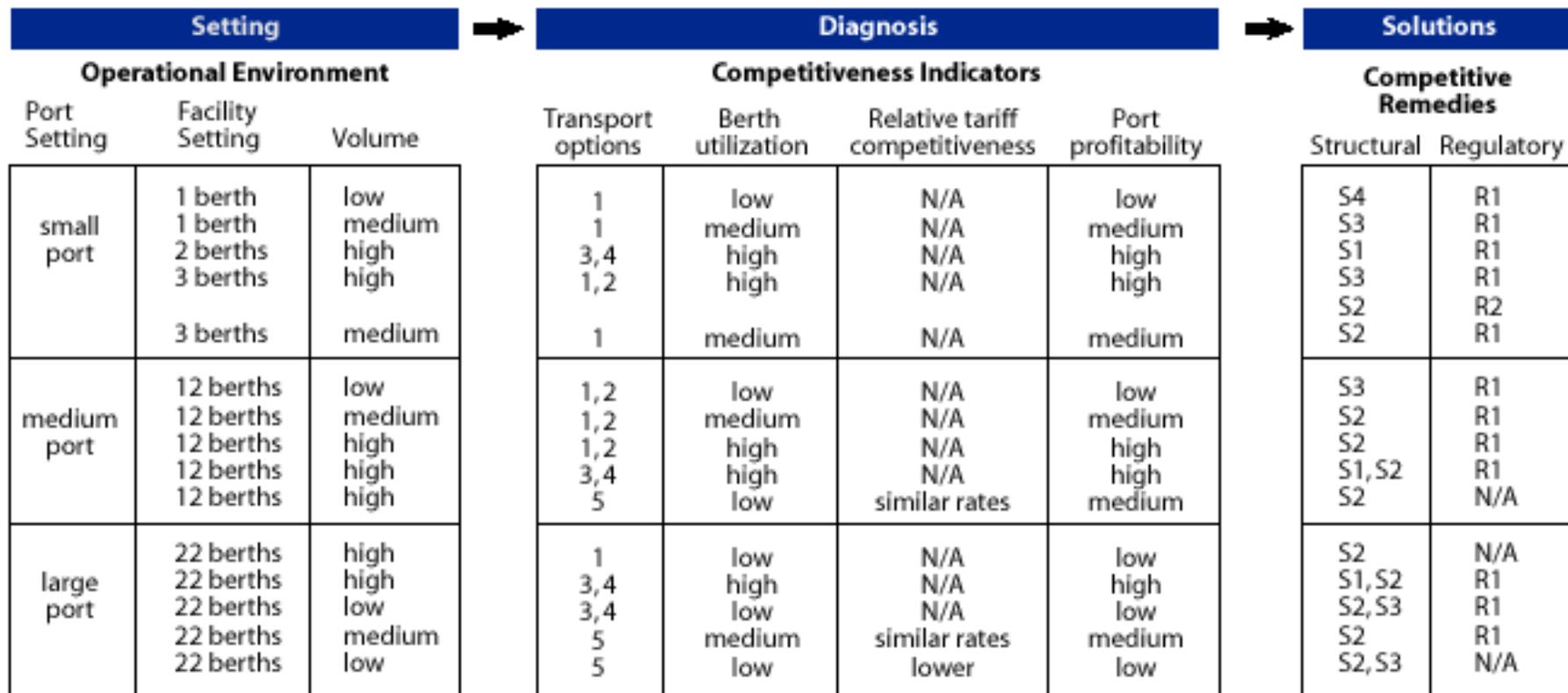


- Introduces competitive pressures
- Competition reduces the level of regulation needed
- Balance sought between
 - Efficiency gains from economies of scope
 - Cost reductions from competitive pressures

- Introducing new berths/ terminals requires suitable site for expansion and sufficient volumes
- Divide existing port into competing terminals (terminalization): via dedicated terminals or “overlapping” activity
- Divide port operations in the terminal by
 - Privatizing the vessel stevedoring operation
 - Port authority operates the yard area
 - Assignment of yard areas to stevedoring companies
 - Allowing stevedoring companies to provide vessel stevedoring and yard/storage services without any assigned areas
- Short-term operating agreement/lease/management contract

- Encourage local-international partnerships by minimizing overly stringent pre-qualification criteria
- Avoid participation of carriers in terminal operations: risk of conflict of interest
 - Preferential berthage to their own ships
 - Discounts in berth handling charges to their own ships
 - Access to proprietary data of competitors

- Tariff filing to monitor for and discourage anticompetitive behavior
- Setting of tariffs to prevent monopolistic behavior
- Encourage communication between port planners and regulators to determine if structural remedies are available



Transport Option Codes:

- 1 - no other ports or intermodal options
- 2 - no possibility for facility expansion/construction of a new port
- 3 - possibility to expand existing facility
- 4 - possibility to construct a new port/terminal nearby
- 5 - other port or intermodal options

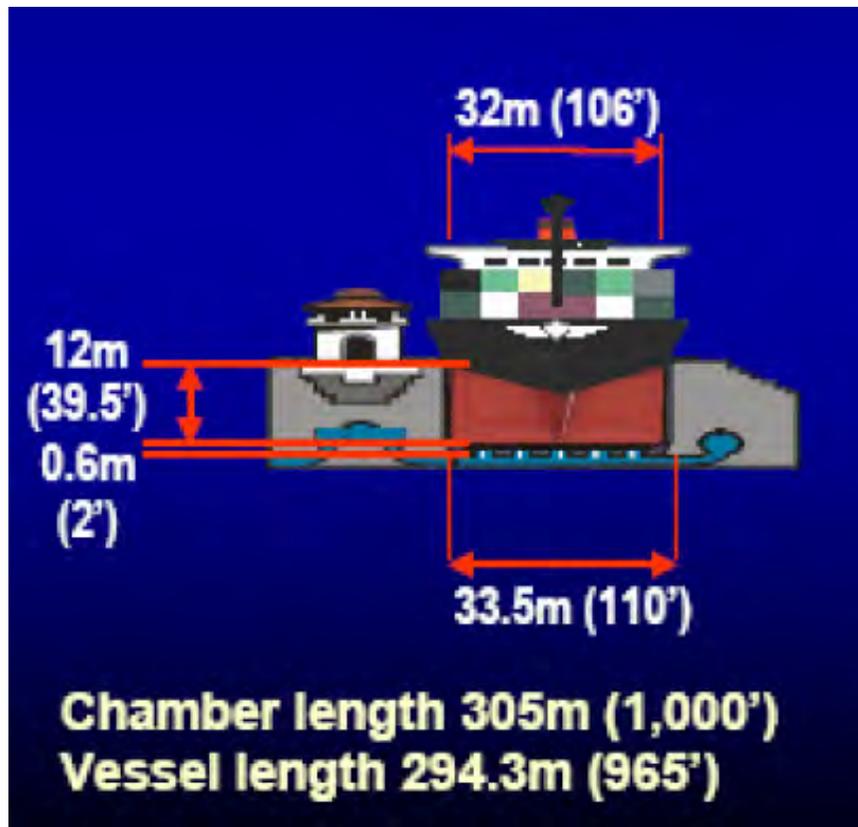
Structural Codes:

- S1 - introduce new berths/terminals
- S2 - divide existing port into terminals
- S3 - divide operation within the terminal
- S4 - short-term operating agreement/lease/management contract

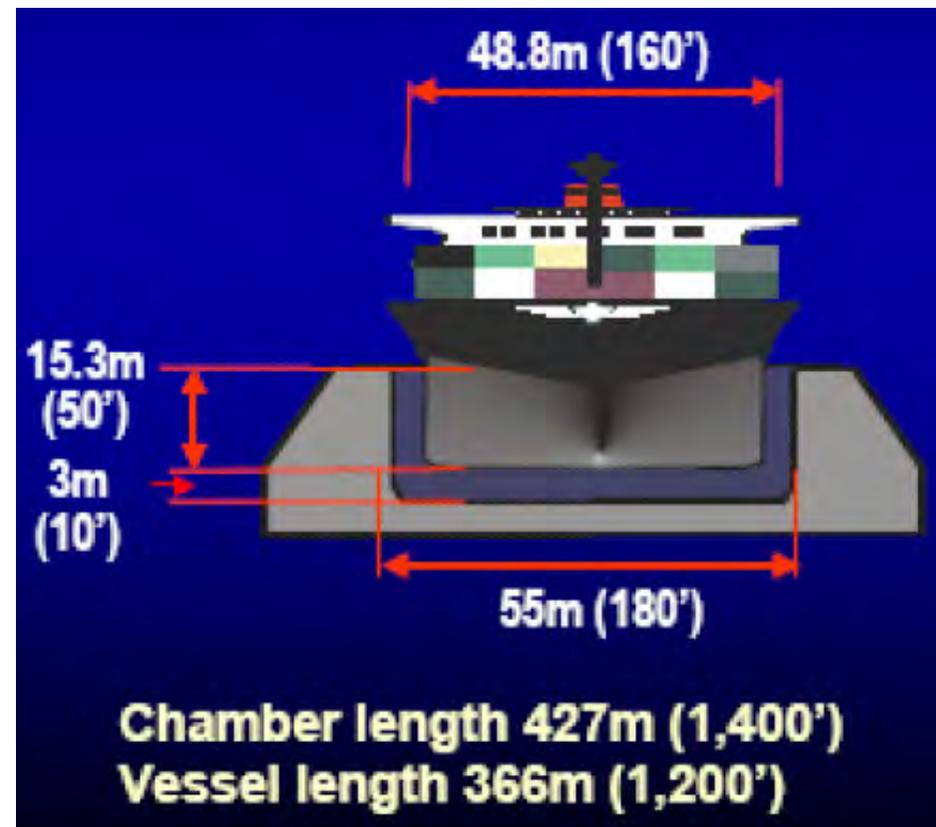
Regulatory Codes:

- R1 - file/monitor tariffs
- R2 - set tariffs/profitability limits

Existing Locks



Post-Expansion Locks

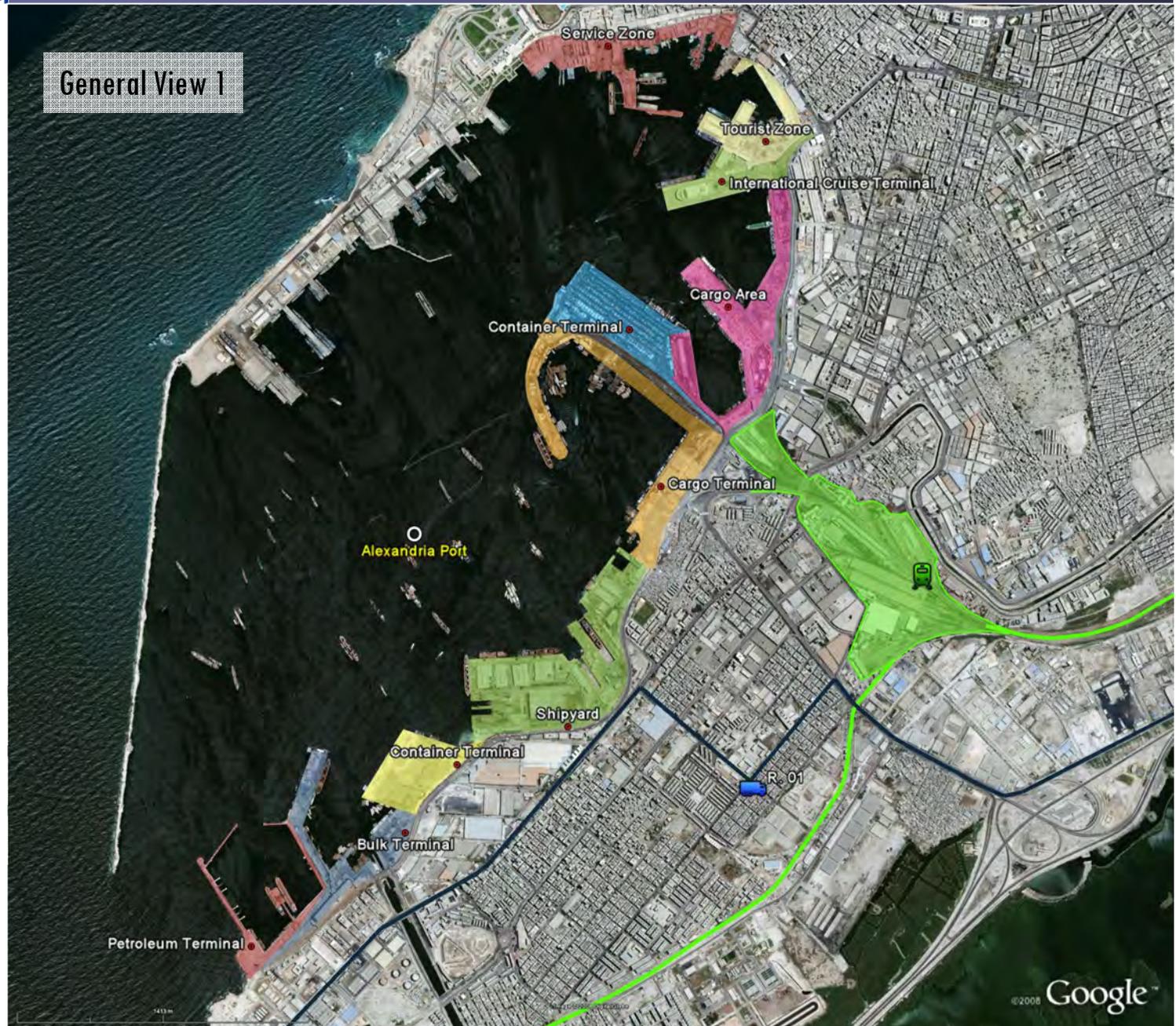


Changing Vessel Economics

	Direct Regional Services	Hub and Spoke		Fourth Revolution	
		Mother Vessel	Feeder Vessel	East/West Trades	North/South Trades
Vessel Capacity (TEUs)	6,000	7,500	2,500	12,500	6,000
Ships in String	8	7	1	7	1
Rotation Time	56	49	7	49	7
Daily Ship Cost (per FEU)	25.4	24.2	30.4	21.8	25.4
Subtotal Ship Cost per Round Trip (\$/FEU)	710	593	107	533	89
Total Ship Cost (one-way per FEU)	355		350		311
Port Cost (per FEU)			100		100
Total Ship and Port Cost (per FEU)	\$355		\$470		\$431

- Carrier Rationalization – economies of scale savings
- Countervailing Trends
 - Development of Pure Transshipment Ports (PTPs)
 - Slowing trend – transshipment share is consistently around 30% of total volume
 - Increasing direct calls
- What we can expect: bigger ships, fewer calls, higher peak loads per call

General View 1



Alexandria Port View 1

Alexandria Port View 2

Port Traffic View

Port Traffic Video



Alexandria View 1

Alexandria View 2

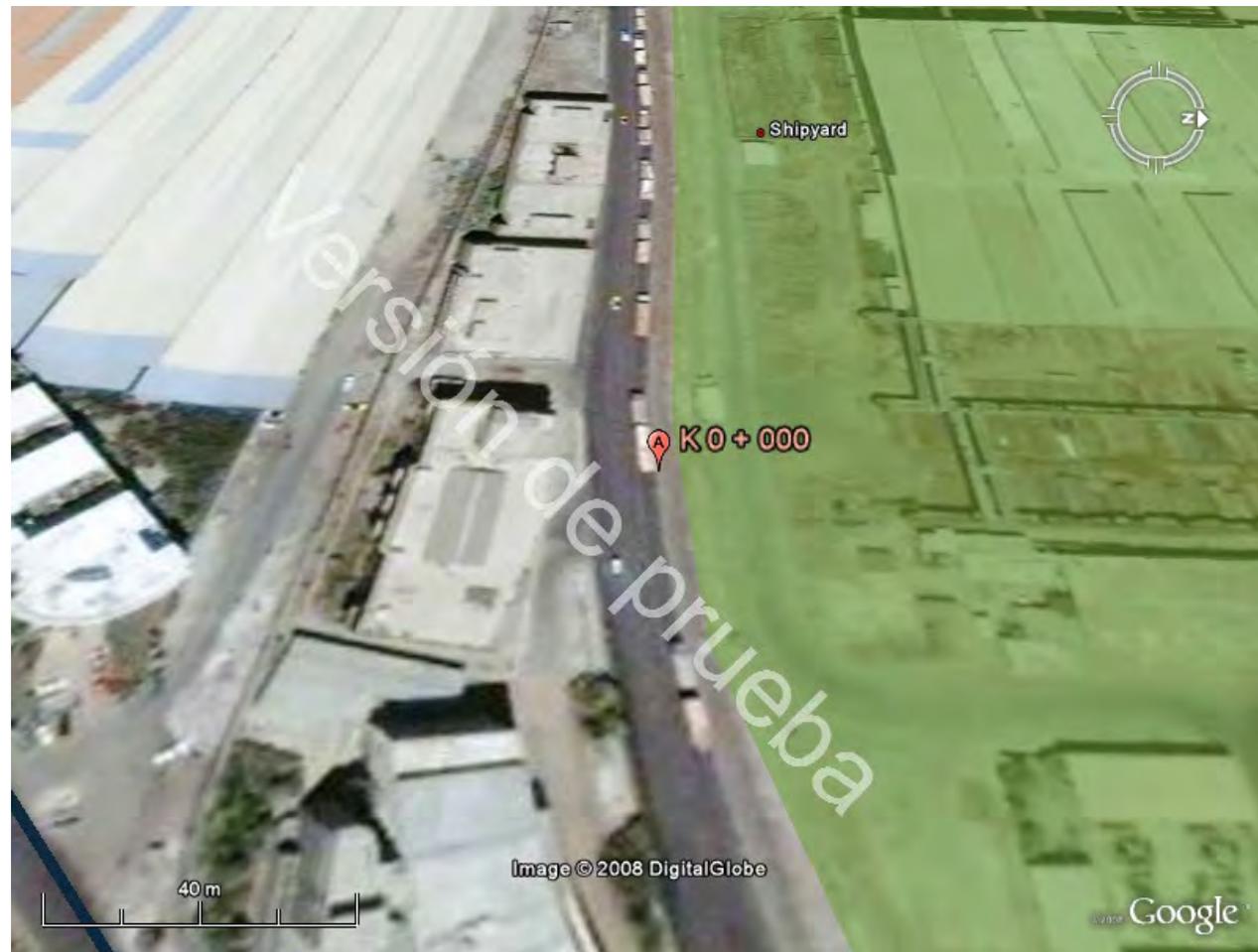
Port Traffic View

Port Traffic Video



- Alexandria View 1
- Alexandria View 2
- Port Traffic View
- Port Traffic Video

Port Traffic Video



Alexandria View 1

Alexandria View 2

Port Traffic View

Port Traffic Video





General View 1

El - Dekheila View 1
El - Dekheila View 2
Alexandria & El - Dekheila

General View 2



El - Dekheila View 1

El - Dekheila View 2

Alexandria & El - Dekheila

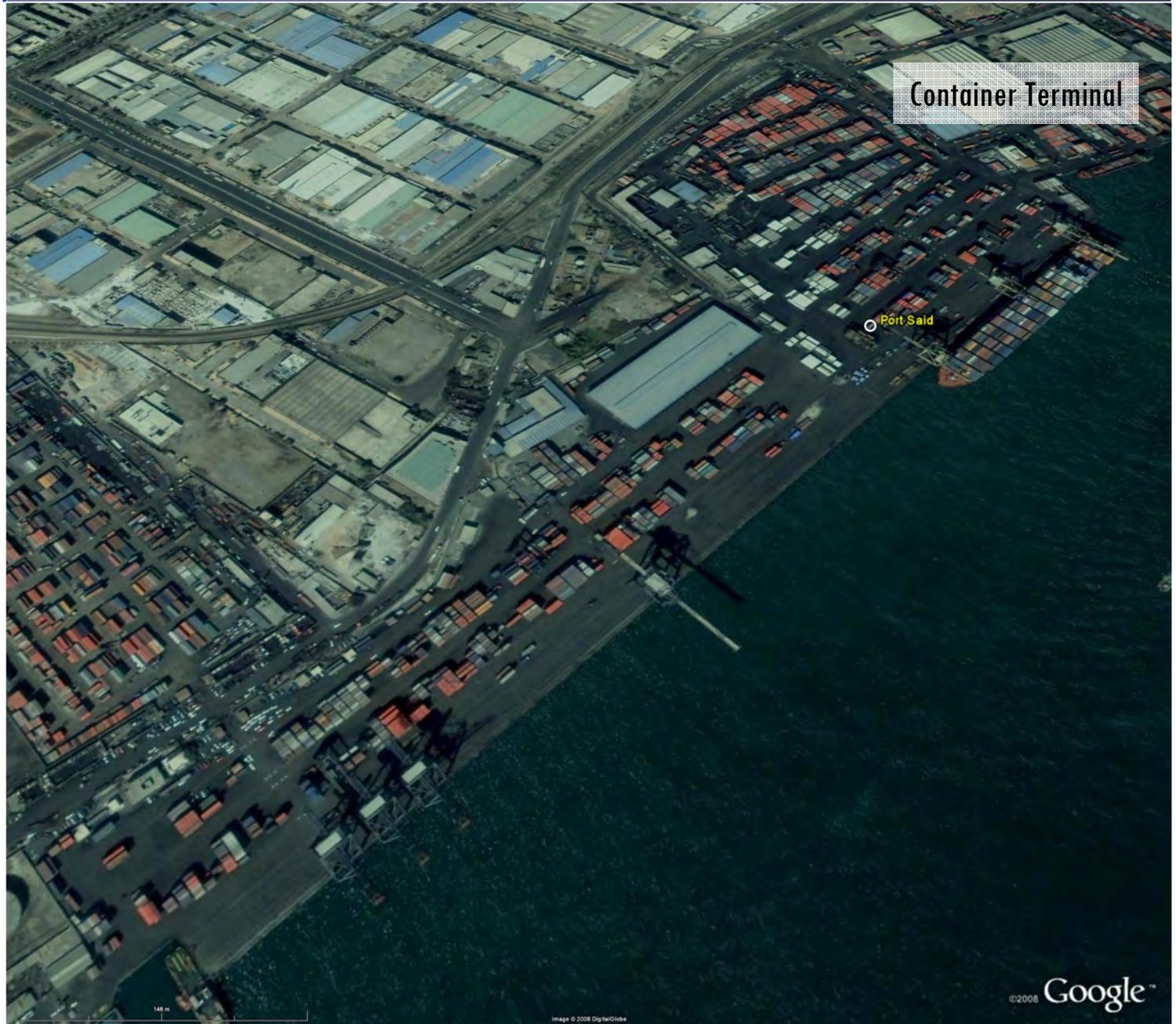


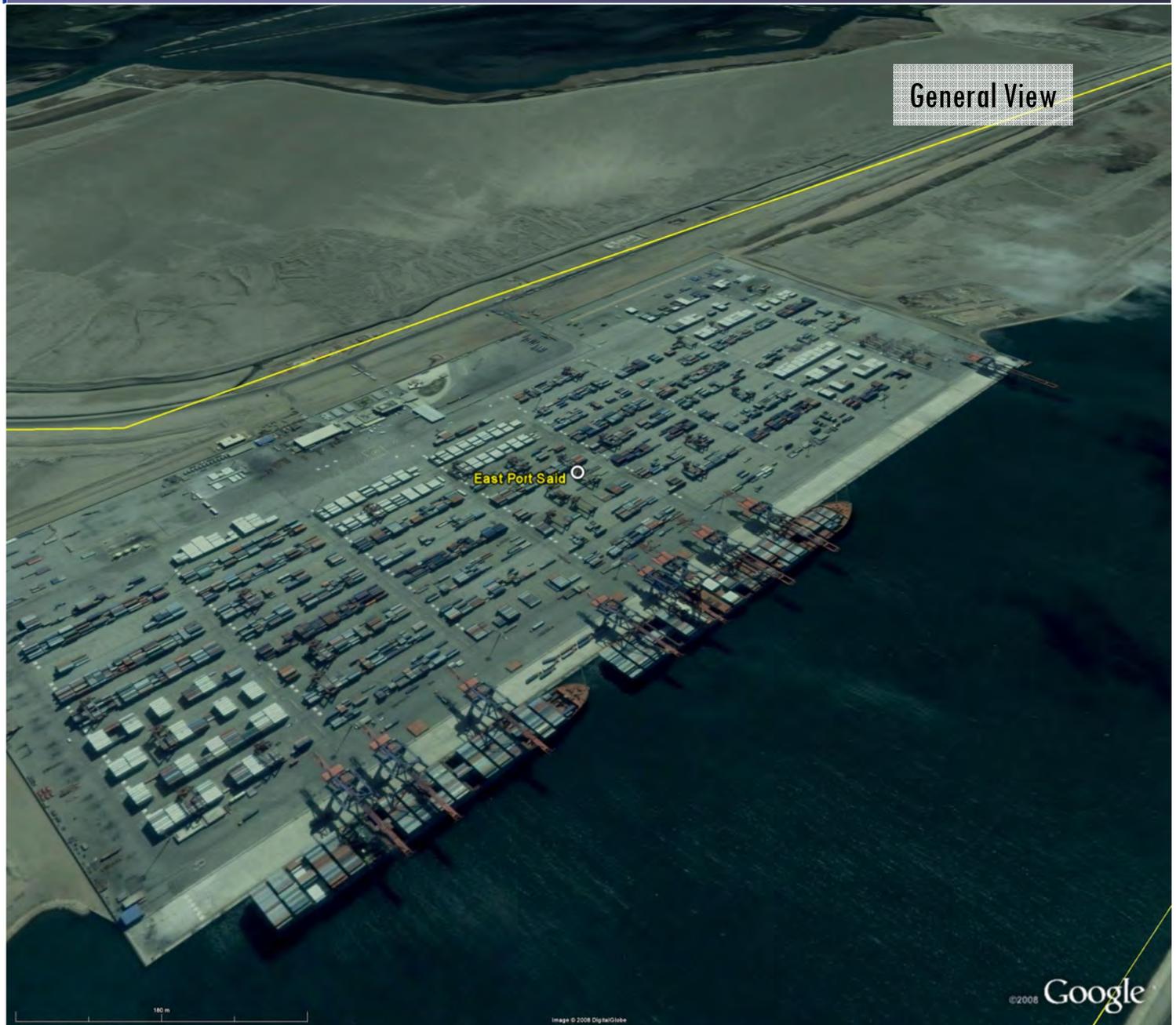
Alexandria & El - Dekheila View

- El - Dekheila View 1
- El - Dekheila View 2
- Alexandria & El - Dekheila













General View

