

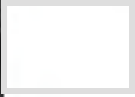
SERVICE QUALITY IMPROVEMENT AT THE CONTAINER TERMINAL OF THE PORT OF CASABLANCA





CONTENT

- Marsa Maroc - Background
- Main issues causing the port of Casablanca congestion
- Short and long term remedial actions
 - Strategic short and long term remedial actions
 - Immediate short term remedial actions
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 - Road map to reduce the container dwell time
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Marsa Maroc at a Glance-**The leading Moroccan port operator**

Total Assets:

US\$ **530** Millions

Revenues:

US\$ **250** Millions

Employees:

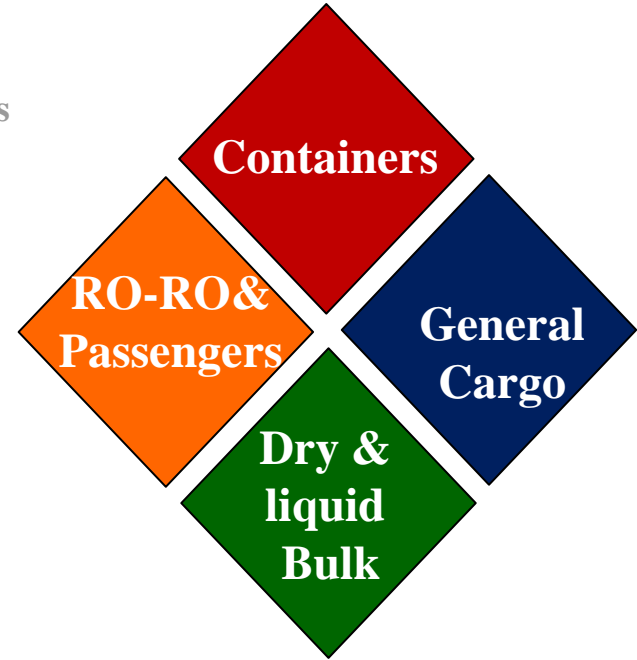
Headcount **2100**

Multi-site presence:

Number of ports **10**

Casablanca Port:

Market share **70** %



Multi-users Terminals treating 36 MT of a wide range of businesses in 4 areas offering a global capacity of :

- 20 MT in solid bulk;
- 20 MT liquid Bulk;
- 10 MT General cargo;
- 200 000 new cars;
- 1 600 000 TEUs (gateway);
- 2 300 000 TEUs (transshipment): under construction



A various kinds of traffic

Container

800.000 TEU

Ro-Ro

100.000 vehicles

General cargo

4 MT

Dry Bulk

9 MT

Liquid
Bulk

13,6 MT



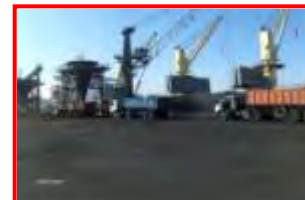


Marsa Maroc got a foothold in the port of Tangier Med

The Transshipment Container Terminal 4:

- A capacity of 2.300.000 TEUs;
- 1.200 m quay with a depth of 16 m;
- 54 hectares of land;
- Scheduled to start operations in the 2nd half of 2016.

...an initial investment of 200 million Euros



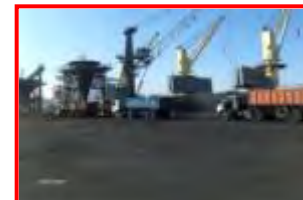


Marsa Maroc obtained a new concession in Casablanca

The Container Terminal 3:

- A capacity of 600.000 TEUs;
- 600 m quay length with a depth of 14 m;
- 30 hectares of land;
- Scheduled to start operations in the 2nd half of 2015.

...an initial investment of 200 million Euros



Casablanca container terminal layout :



TC1

ü Marsa Maroc Terminal;
ü 65% of MS;
ü 600 m of quay .

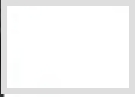
ü 12 m of drought
ü 5 vessels position.
ü 60 Ha of area.

TC3

ü New concession for Marsa Maroc;
ü Kick of in 2015;
ü 600 m of quay .

ü 12 m of drought.
ü 5 vessels position.
ü 30 Ha of area

- **Global capacity of 1 300 000 TEUs (Gateway);**



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Context factors

Traffic growth

- Container traffic expansion growth of 20% in 2007 compared to 9% in 2006.
- Increase in average cargo per ship by 30% between 2006 and 2007.

Storage space and equipment

- Lack of storage facilities to handle the increased demand
- Insufficient amount of required equipment (straddle-carriers, trailers, etc...).

Organizational factors

Inadequate communication network

- Complex communication network requiring a large number of intervening players (importers / exporters, maritime agents, bankers, administrators, customs officers ,etc.).

Administrative control inside the terminal

- Delay caused by the complex network of customs, office control and other organizations intervening in the port .

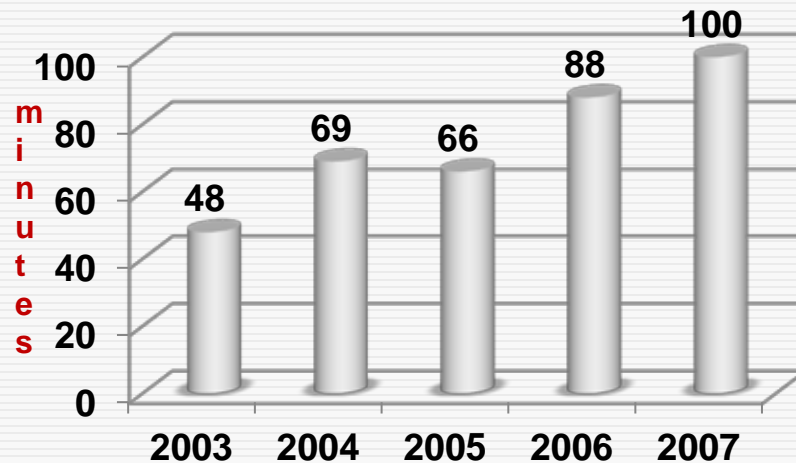
Capacity / performance Of Marsa Maroc

- Reduction of the capacity and operations' performance of Marsa Maroc.

1. Container Dwell Time

- ∅ Imported container dwell time averaged about 13.54 days in 2007;
- ∅ Average time for truck delivery was about 100 minutes instead of 30 minutes in normal situation;
- ∅ Average stacking height was 2.6, keeping in mind that the terminal capacity was 2.8;

Delivery Waiting Time

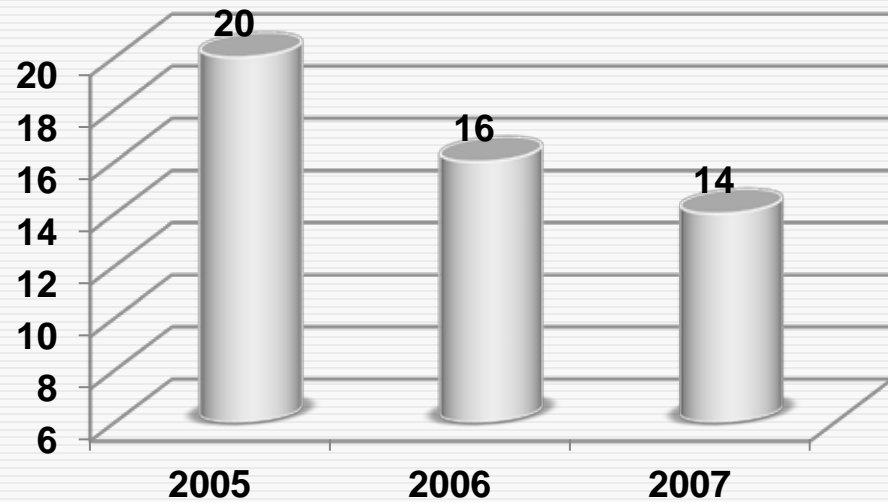


2. Low quay productivity:

∅ Vessels handling productivity was very low :

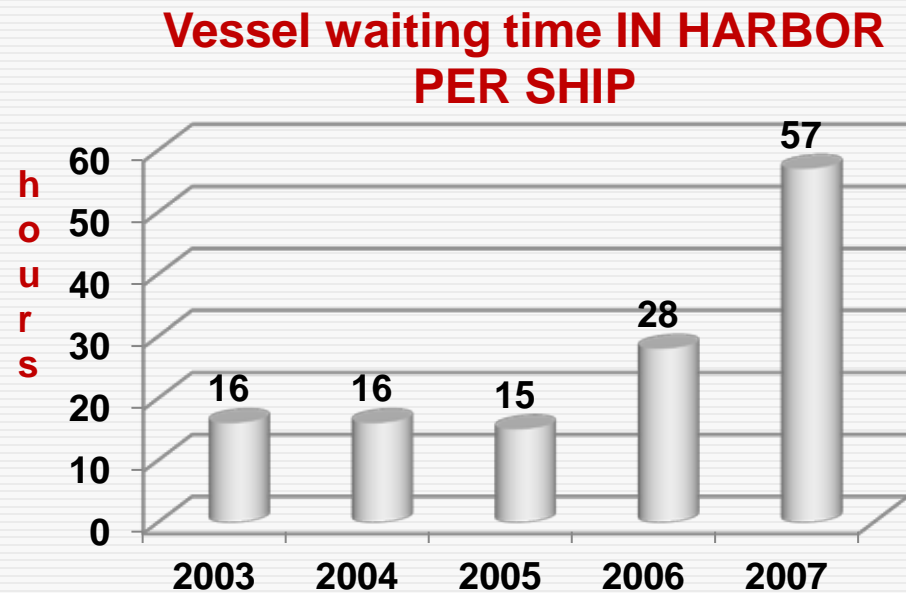
14 moves / hr instead of 27 moves / hr in normal situations

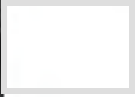
PRODUCTIVITY (moves/hr)



3. Vessel waiting times in harbor

- ∅ Vessel waiting times in harbor was extremely high , reaching a high of 57 hours per ship;





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Two Horizons of Action

Horizon 2 : After 2009

Horizon 1 : 2008

New port Infrastructure (ANP)

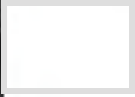
- Short term action for storage capacity extension
- Somaport Terminal
- Launching the construction of the 3rd container terminal

Operating Performance Marsa Maroc

- Immediate actions to improve the operating performance (quay, storage facilities and delivery)
- Integrate long term action to improve the operating performance of Marsa Maroc
- HR planning, redeployment and training to enhance workforce motivation and productivity

Improving Quality Of Service

- Road map
- Action taken by Marsa Maroc to decrease dwell time.
- Reorganization of the port transit process (involving all stakeholders)



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2008 OBJECTIVES



Main actions of 2008

Stakeholders

Main Indicators (KPI's)

1

Improving the Terminal operation performance



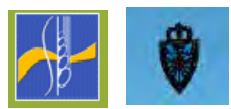
- ◆ **Port Performance:**
- Inflow**
 - Ships waiting time
 - Quay productivity
 - Storage level
- Outflow**
 - Delivery time
 - Number of container delivered per day



2

Setting up of the road map to decrease the container dwell time.

Others



*Importers / exporters;
Banks ; port authority
Shipping agents;
Freight – Forwarders.*

- ◆ **Decrease of the container dwell time at the port of Casablanca**



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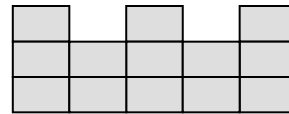
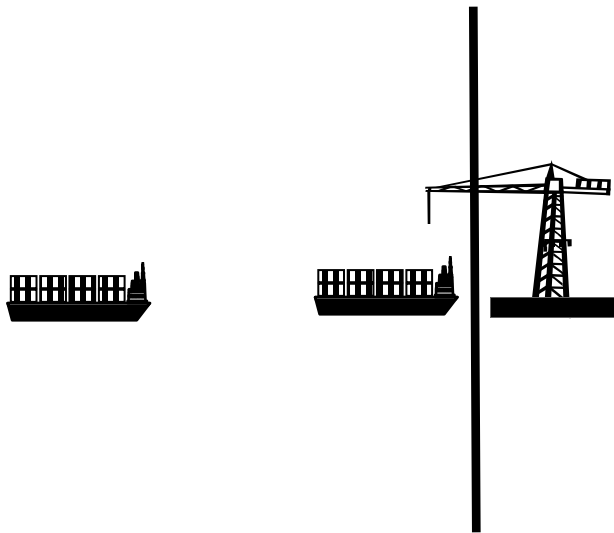


PERFORMANCE INDICATOR

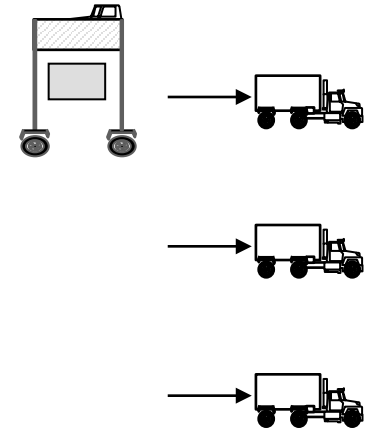
Quay side

Land side

Delivery



The storage height level highly impacts the operating performance

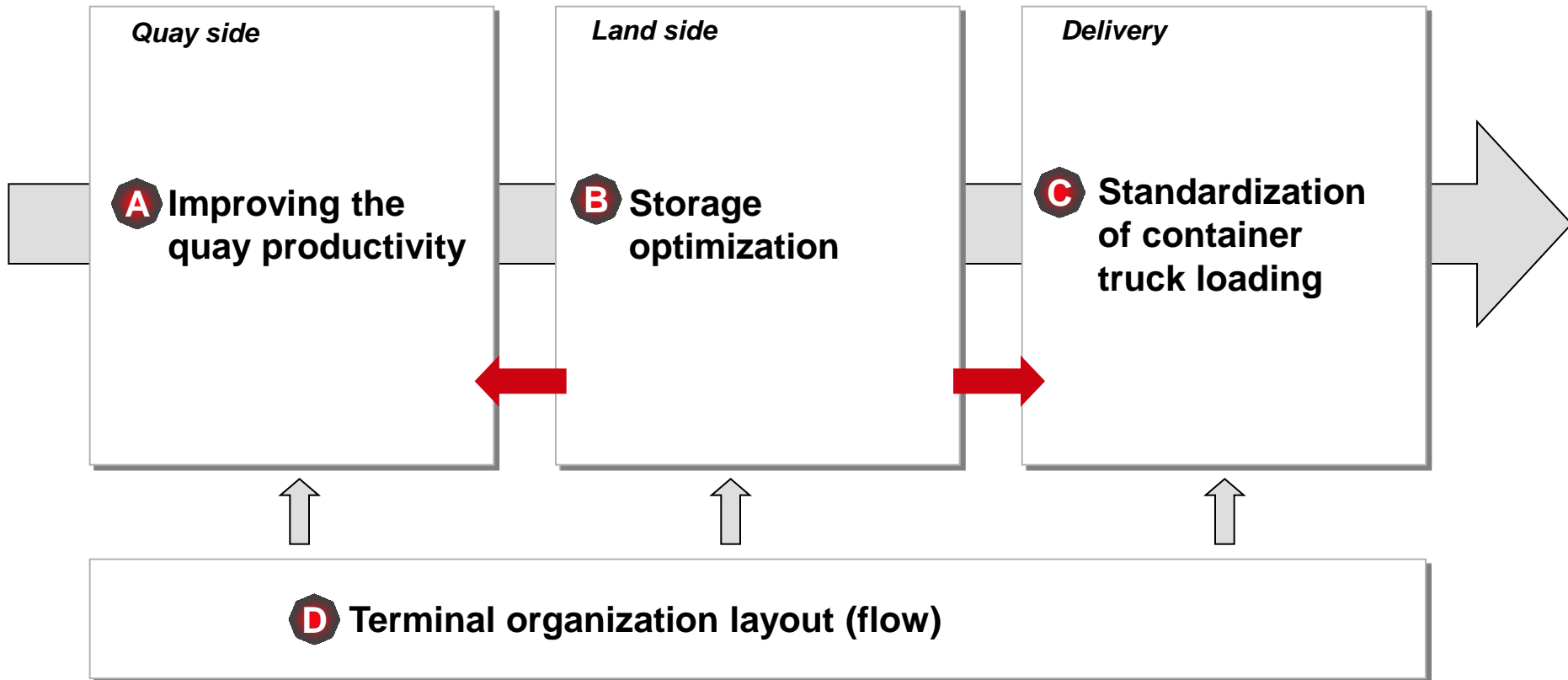


Main performance indicators

- Vessels waiting in harbor
- Quay productivity (number of containers moved per hour)
- Storage level
- Stacking height
- Truck waiting time
- Number of containers delivered per day



4 PRINCIPAL AREAS



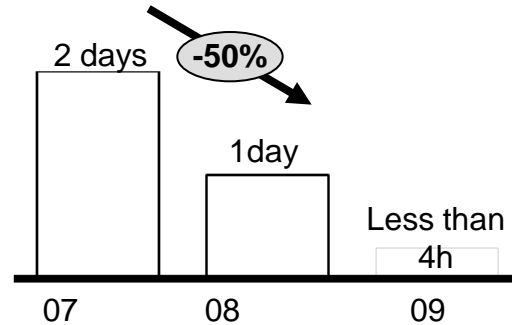


Performance indicator

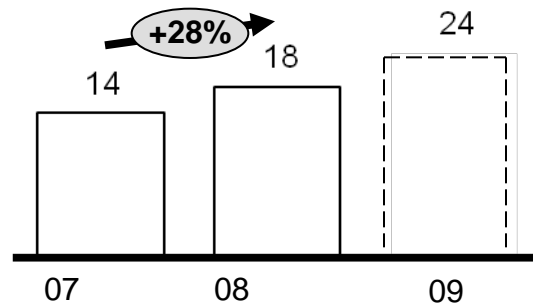
2008 objectives

Main realized actions

Waiting time in harbor
days



Quay and yard productivity
box/hour/ gantry



• Planning of ship arrivals

- Preparation of the berthing and the vessel's handling process along with the shipping agent;
- Systematic evaluation of ship call operations;
- Required submittal of the export container sequence 24 hr before the ship's berthing ;
- Preparation of export containers before completion of import operations.

• Upgrading of equipment

- Reinforcement of equipment maintenance (gantry cranes, etc);
- Conformance to the maintenance schedule;
- Purchase of new equipment.

• Human Resources

- HR motivation program (bonus and incentives);
- Continuous staff international training program (crane and straddle carrier drivers).



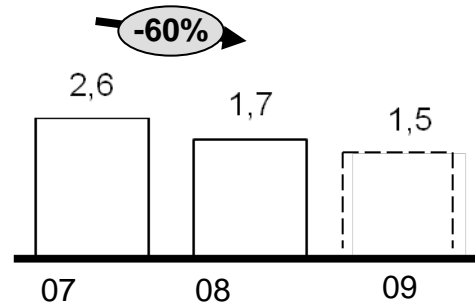
STORAGE OPTIMIZATION

Performance indicator

2008 objectives

Main realized actions

Storage level
stacking height



- **Acquisition of new equipment :**
 - 9 new straddle carriers
 - 8 fork-lift elevators
- **Extension of the container import storage area :**
 - Development of an additional storage area of 6 Ha (14,8 acres);
 - Development of two additional delivery areas;
 - Development of the customs' control area isolated from the operation yards.



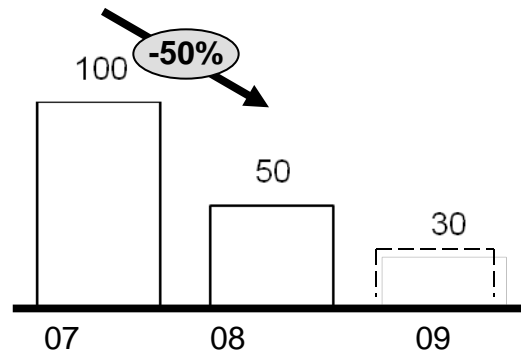
Standardization of delivery

Performance indicator

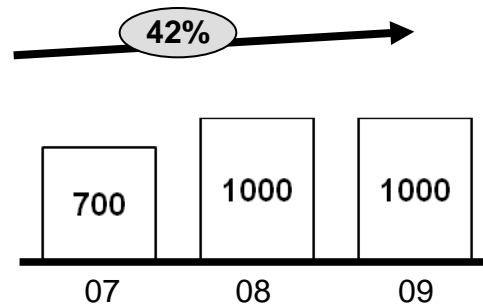
2008 objectives

Main realized actions

Truck waiting time



Number of TC
average number of containers delivered per day

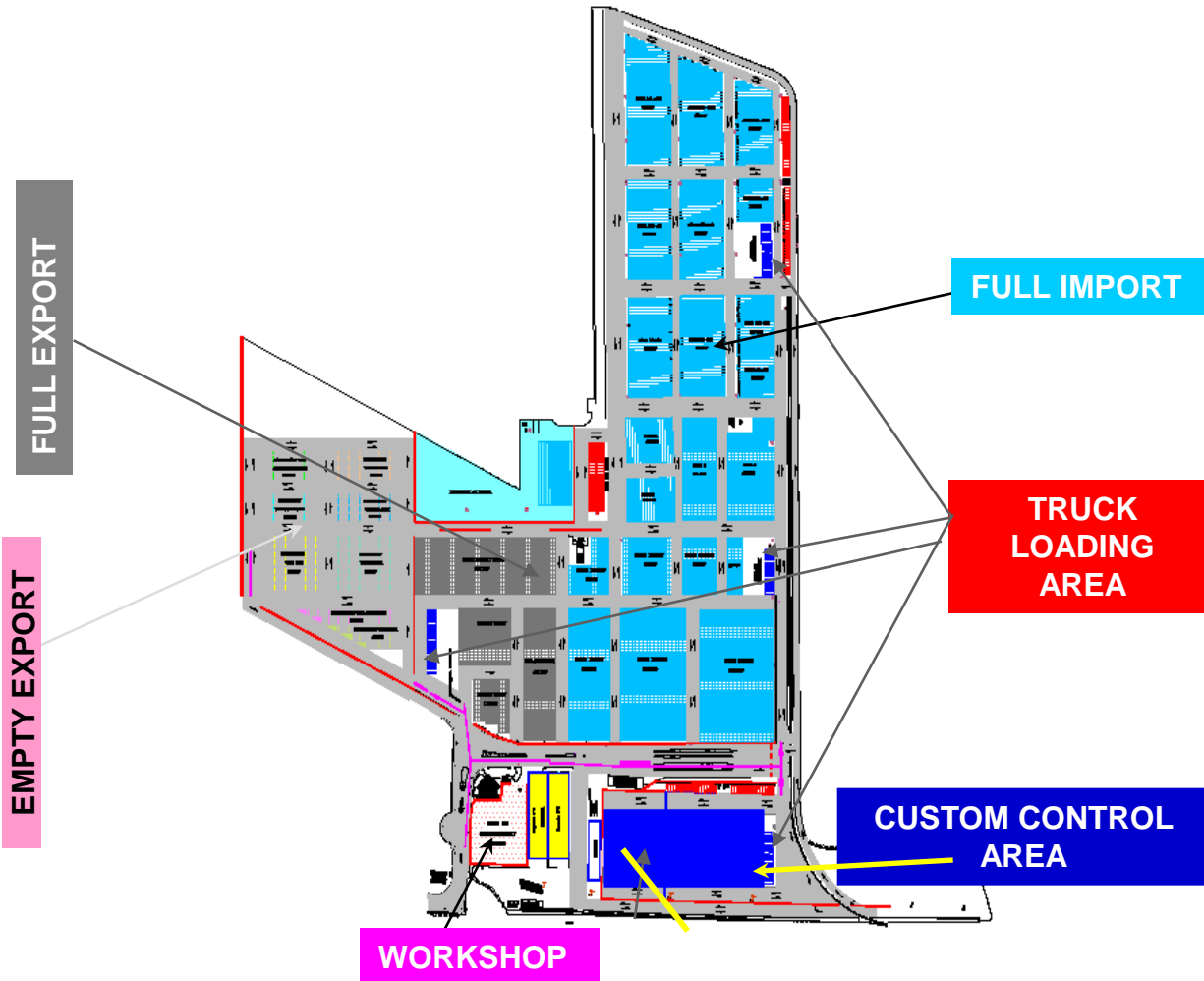


- Tripling the truck loading areas;
- Possibility of scheduling delivery by prior appointment;
- Increase in handling equipment (straddle carriers, etc);
- HR performance reinforcement (national and international training, redeployment, motivation, etc);
- Streamlining the billing process.



D PORT OPERATION LAYOUT

Re-engineering of the terminal











Main realized actions

- Rationalization of flows (import, export);
- Marsa Maroc " unique actor in the terminal;
- Customs control area outside the terminal.

KEY PERFORMANCE INDICATOR KPI's

GLOSSARY OF PERFORMANCE INDICATORS OF THE CONTAINERS TERMINALS

 Bad
  Average
  Good
  Excellent

Ind.	Description	Formulate	Measure unit	Responsible	2008 situation	2009 objective	Week situation	
<u>1</u>	Ships waiting time	Σ (date and hour of berth - date and hour of harbor entry) / Σ stop over	hour	M. CHAHIR	1,25d=30 h	10 h	4 h	
<u>2</u>	Quay movement	Σ number of import boxes (full and empty) + Σ number of export boxes (full and empty)	Movement /days	M. JEBBOURI	1350 Movement/day s	1600 Movement/day s	1176 Movement/day s	
<u>3</u>	Charging trucks average time	Σ (hour of the TC leaving ticket - hour of the TC handling ticket) / Σ TCs left	Minutes	M. JEBBOURI	62 minutes	30 minutes	32 minutes	
<u>4</u>	Containers' leaving follow up	Σ delivered boxes per day	movement/day s	M. JEBBOURI	803 containers	800 containers	550 containers	

(*) Gross Time : Σ (number of quay crane x 8h) - Σ (berth delay time + finished ship' time)

(**) Net Time : Gross Time- deductible stoppage:

- Haul out
 - Opening/closing of hatch covers
 - out size manipulation
 - Shifting
- | | |
|-----------|------------------------------|
| Excellent | > to 120% of the objective |
| Good | 100 to 120% of the objective |
| Average | 80 to 100 % of the objective |
| Bad | < to 80 % of the objective |



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Road map to reduce the dwell time

Immediate actions to reduce the dwell time

Further actions

Marsa Maroc

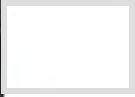
- **Informing and increasing customer awareness**
 - Establishment of a website for container tracking.
- **Reorganization of the terminal**
 - New control areas
 - New truck loading areas
 - Enclosing the terminal (security, safety and performance)
- **Incentive pricing:**
 - Encouraging customers using the port for transit (increase the free period from 5 to 8 days).
 - Penalizing customers using the port as a storage area for their goods (higher tariffs and removal of the free charge period).

Further Stakeholders

- q Accelerate the development of new infrastructure and superstructure in the port area of Casablanca;
- q Reorganizing the operating mode of the port area;
- q Simplification and streamlining of the controlling procedures of the port transit by the stakeholders within the supply chain.
- q Optimization of communication network between different stakeholders (port operators, supervisors, importers/ exporters , customers)

All stakeholders

- Improving the port layout (flow separation, control area, etc.)
- Streamlining the process of control (anticipating, outsourcing, etc)
- Optimization and use of IT for information flow .

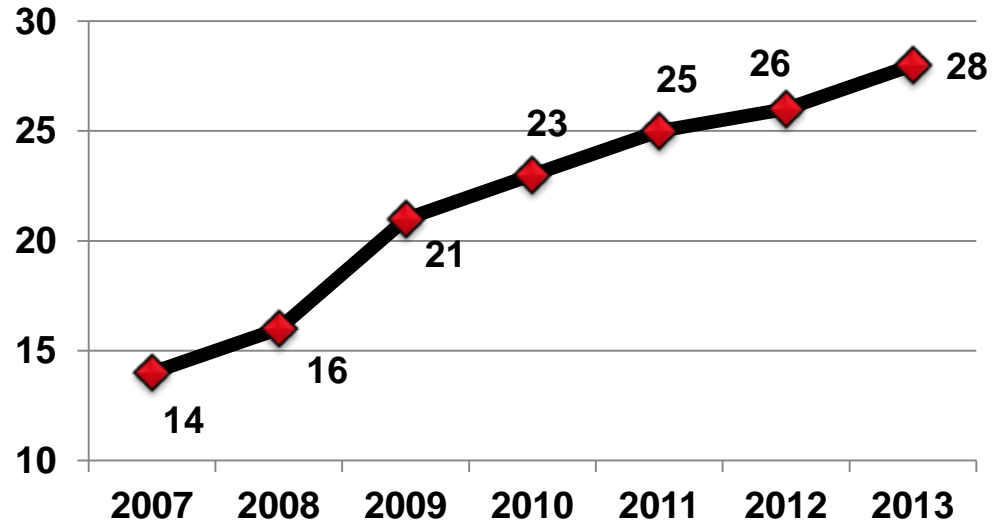


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RESULTS OF IMPROVING QUALITY OF SERVICE

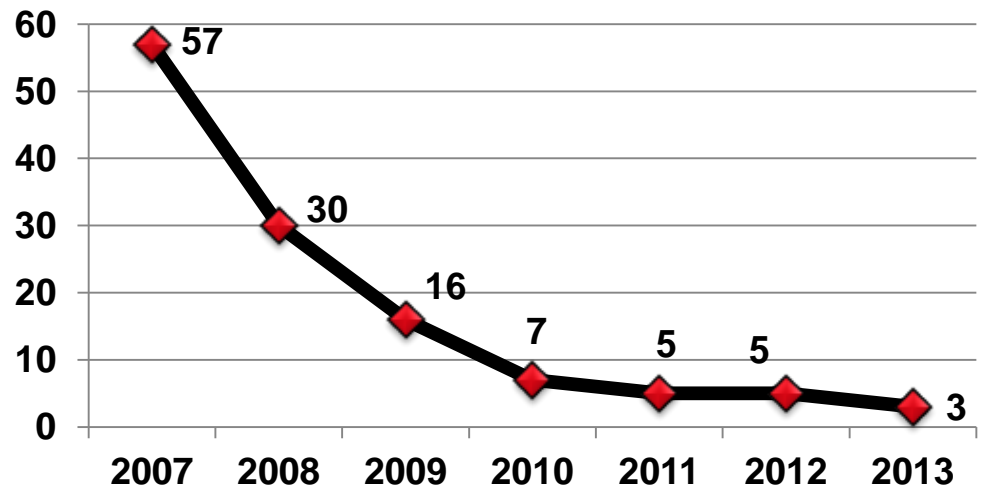
A Improving the quay productivity by 100%

Productivity Moves/Hour



B Reduction of ship waiting time to an average of 3h

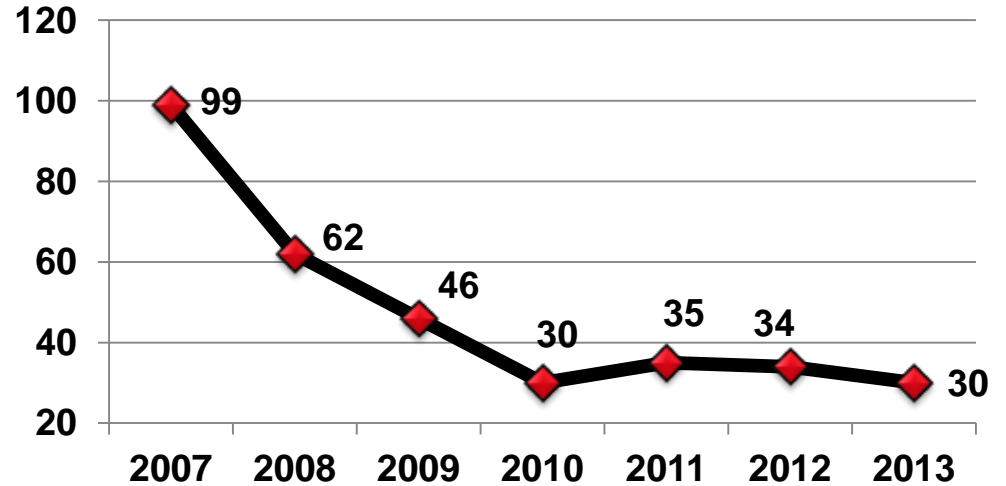
Containership Waiting Time



RESULTS OF IMPROVING QUALITY OF SERVICE

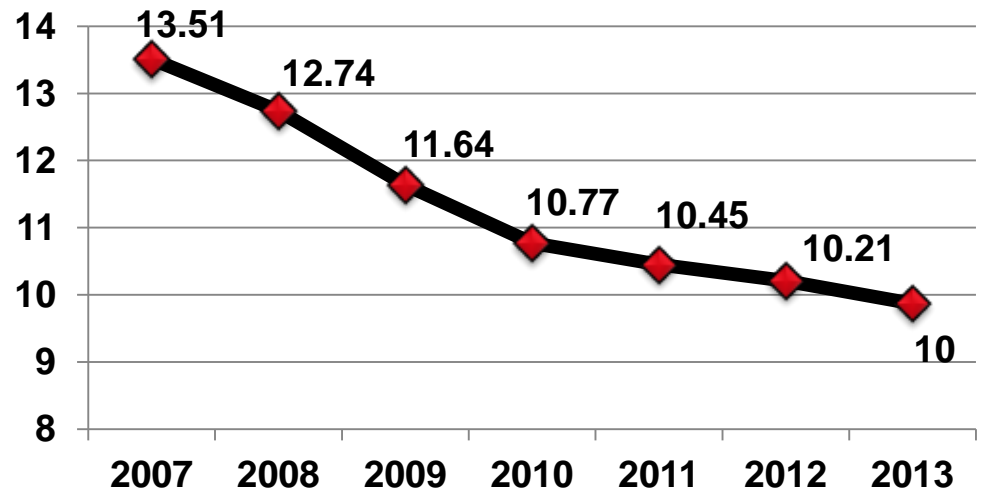
C Reduction of the truck delivery time to an average of 30 min

Truck Delivery Time



D Reduction of the full container storage period to 10 days (dwell time)

Full Container Storage Period



Certification ISO 9001- v2008 of Container Terminal in Casablanca port



Certified ISO 9001-v2008 in 2013





THANK YOU

QUESTIONS ?