

WORK SESSION 5

Smoothening the Supply Chain Cycle with the Right Equipment

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WORK SESSION 5

Optimising Infrastructure Return

Using the Right Equipment

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- **Why Must You Upgrade?**
- Case Studies
- Conclusions

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You must upgrade when you require:

- More capacity in your infrastructure
- Better efficiency
- Improved options with technology
- More security
- Controlled maintenance
- Increased reliability

- Why Must You Upgrade?
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Waterfront Infrastructure

Doca de Santo Amaro (Lisbon, Portugal)



- Late 60's :
- Fishing Boats Dock

Waterfront Infrastructure

Doca de Santo Amaro (Lisbon, Portugal)



- 200+ berths for vessels up to 8m
- 100+ berths for vessels above 8m
- Rowing pontoon
- Touristic area
- Restaurants, pubs
- Revenue for Port Authority
- Increased security

Chain Value

Waterfront Infrastructure

Marina Parque das Nações (Lisbon, Portugal)



- Degraded industrial zone in Lisbon's upper estuary
- Environmental liability
- Non operational refinery
- Abandoned area
- Reduced real estate value

Waterfront Infrastructure

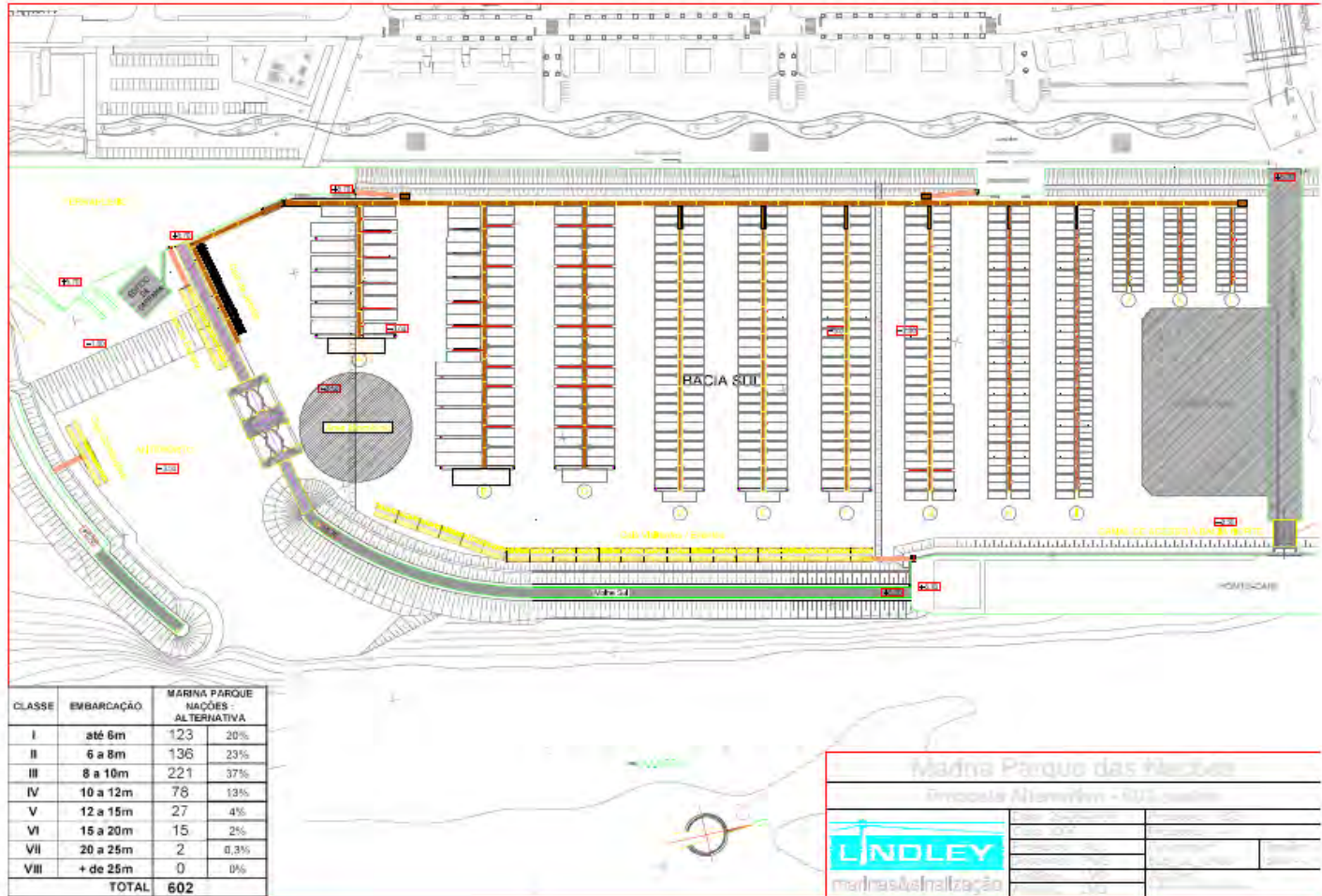
Marina Parque das Nações (Lisbon, Portugal)



- Waterfront development for world exhibition EXPO'98
- Siltation issue
- Floating restaurants during exhibition
- Marina berths not tennable for regular basis

Waterfront Infrastructure

Marina Parque das Nações (Lisbon, Portugal)



Waterfront Infrastructure

Marina Parque das Nações (Lisbon, Portugal)



- 600+ berths for yachts up to 25m
- Boatyard area with about 4000 m²
- Pontoon for events

Waterfront Infrastructure

Marina Parque das Nações (Lisbon, Portugal)



- Urban marina, 5min from international airport
- Riverside area with restaurants

Requalification

Maritime Beaconing

Port of Buenaventura and Cartagena (Colombia)



- Considerable increase in traffic in the last decade with significant growth forecast
- Port of Buenaventura : pacific gateway
- Port of Cartagena : iconic port in the Caribbean

Maritime Beaconing

Port of Cartagena (Colombia)



- Interior bay, sheltered waters, narrow access channel
- Relatively well developed infrastructure primarily composed of high maintenance steel buoys

Increase Security

Maritime Beaconing

Port of Buenaventura (Colombia)



- 25km of navigable waters, 4m tides, 200m narrow sections that generate strong currents
- A challenge due to the increase volume of goods attracting larger vessels with restricted maneuverability

Increase Availability

Port Beacons

Manzanillo Bay (Panama)



- Mark the entrance to the port of Manzanillo in the province of Colon (Panamá)
- Due to difficult access to the outer breakwaters, the towers were manufactured in sections of 600kg for easy transport and installation

Greater Efficiency

Coastal Beacons

Bugio (Lisbon, Portugal)



Coastal Beacons

Mama (Lisbon, Portugal)



Cargo Handling

Islands of St. Vicente and Boa Vista (Cape Verde)



- Improve operational conditions and port capacity
- Mobile telescopic cranes to handle equipment and support specific works

Cargo Handling

Port of Lisbon (Portugal)



- Crane repair installed on port tug
- Job carried out during normal operation of tug
- Maintain level of efficiency by use of proper tools and planning

- Why Must You Upgrade?
- Case Studies
- **Conclusions**

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1. The optimization of maritime infrastructure allows :
 - Revitalization of degraded areas
 - Better efficiency
 - Multiplier effect of income and generate additional services, thus contributing to local economic development
 - Improved competitiveness

2. A well-planned aids to navigation system allows :
 - Reduced navigation risks in areas with high density sea traffic
 - Optimised insurance costs
 - Enhanced security and safety in harbor operations

3. A proper maintenance and aftersales service allows :
 - Same performance for less cost
 - Improved performance at the same cost



**Are we a partner
rather than just a supplier?**

Up to you to decide!

Thank you!

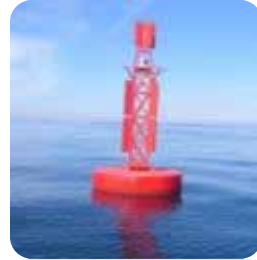
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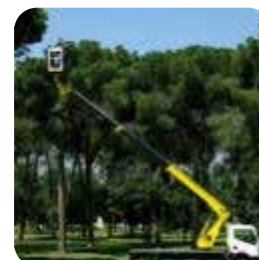
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