

# Why are transshipment terminals in the Mediterranean so attractive, or are they?

Livorno, 18 April 2018



## Agenda

**HPC at a Glance**

**Background**

**Drivers for Transshipment Terminals**

**Implications for Terminal Operations**

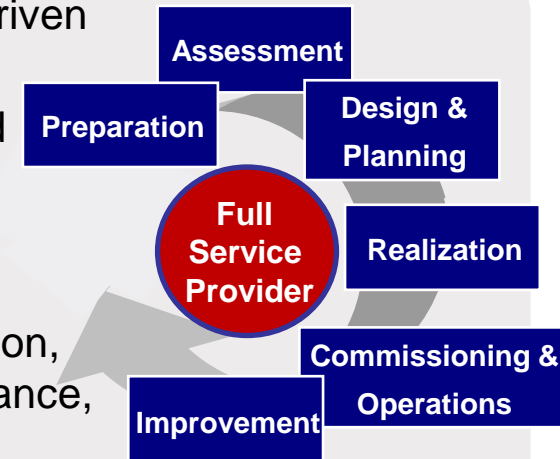
**Conclusion**

History & Experience

- Founded 1976 as subsidiary of HHLA Hamburger Hafen und Logistik AG
- ~ 1,400 projects in 100+ countries
- Around 100 experts
- Annual turnover 2016: ~ € 13 million

Operator Focus

- Through HHLA-group membership terminal operator-driven approach
- **Full-service provider** focussing on ports, logistics and intermodal facilities, ranging from smaller break-bulk facilities to fully-automated container terminals
- Services go beyond plans: Port Planning & Operations (commercial studies, port planning & design, privatisation, interim management), Equipment (procurement assistance, construction supervision), IT Strategies and Software Development, Training



Our Goal

- **Support you from the first project idea**, via planning and implementing your project **up to running operation**
- Help you **make your company** operationally and commercially **successful**

Clients

HPC provides planning, implementation and improvement services worldwide

**Selected operator references**

**Selected authority references**

**Selected international donor sector references**

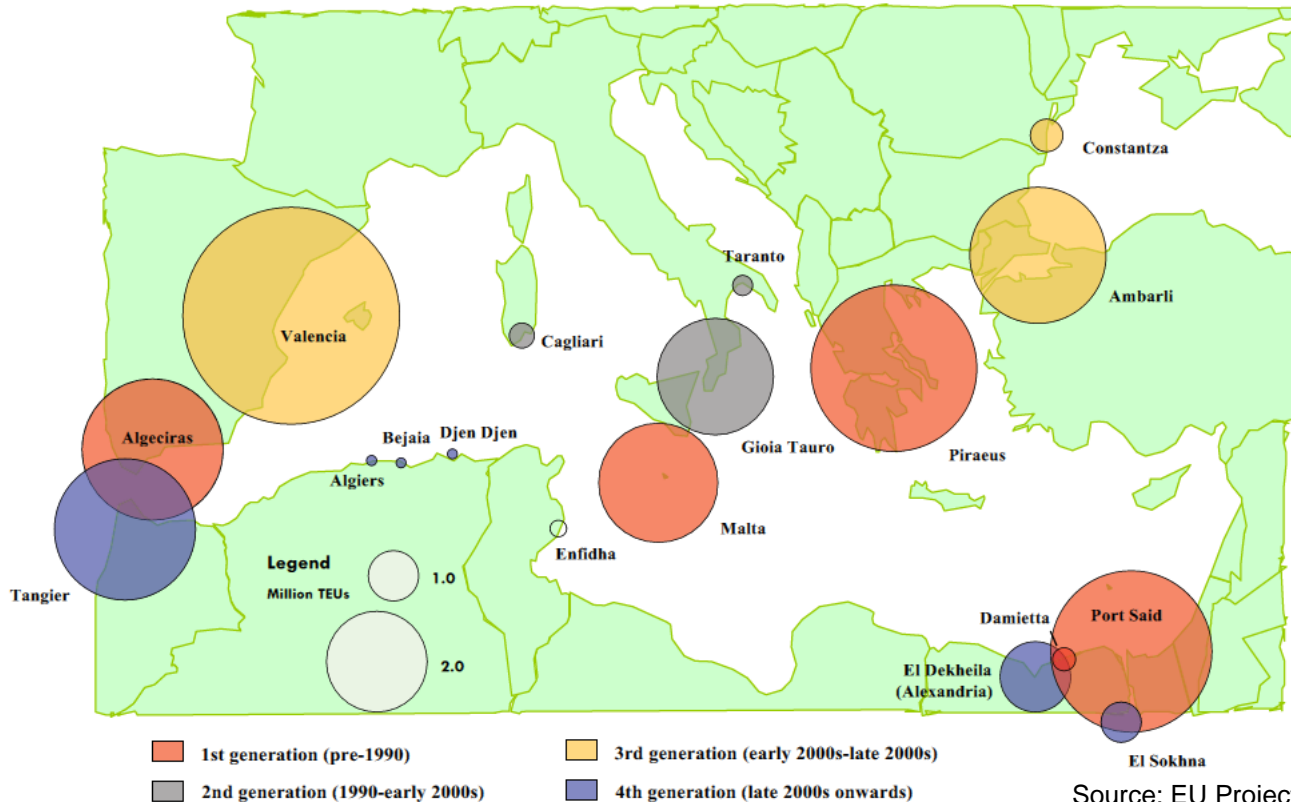
## How many transshipment terminals are there?

- The Mediterranean, being on the main routes between Far East and Europe trade areas, is one of the most competitive transshipment regions in the world
- Several shipping lines have reorganised their networks to feeder West African ports from the Mediterranean



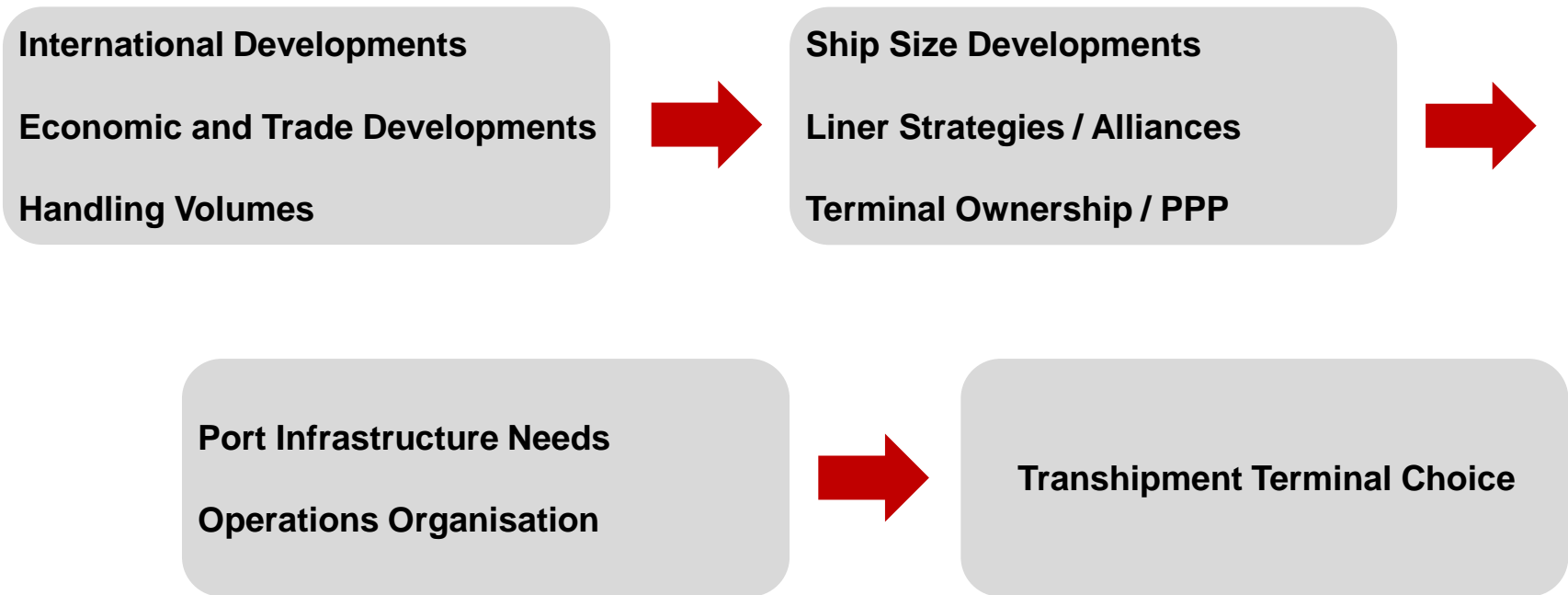
## How many transshipment terminals are there?

- Mediterranean ports are experiencing strong competition of newcomers located in North Africa; competitive advantages: cost, geography, physical, legislative



Source: EU Project PORTOPIA 2014

## What are the influencing factors for transshipment terminal choice?



## What do shipping lines expect?

- One or more of the international container shipping lines need to be able to serve a wider region more economically from that transshipment hub than from competing locations; this is more likely if large volumes of import/export/transit containers are to be handled at the same location
- Expectations of shipping lines from transshipment terminals:
  - Major transshipment hubs should be able to accommodate the largest vessels, which require a **depth of 16-18m**
  - An optimal transshipment location is situated **close to major shipping routes** with minor deviations only
  - Terminal's handling **productivity** must meet international standards (sufficient number of STS and moves/hr, berthing window)
  - Terminal needs to offer a **competitive tariff** for transshipment cargo
  - Substantial **gateway traffic** volumes





## What do terminal owners/operators need to consider?

- Transshipment volumes are volatile; developing an international container transshipment hub requires the interest of international **container shipping lines** and their **strategic decision** for this terminal
- Shipping lines invested in transshipment terminals, i.e. **alliances are bound** to terminals
- Due to double counting, transshipment containers **boost handling statistics**
- Transshipment is a nice **revenue top-up** when there is spare capacity but **does not pay for the construction** of a terminal (unless a critical mass is achieved like in Singapore)
- **KPIs** have to be achieved (berth occupancy, turnaround time, equipment performance)
- **Complex processes** required modern terminals, which are operated accordingly



## How can terminals respond to transshipment related challenges?

- Terminals operate in a dynamic environment where the effects of bigger vessels (in a ceteris paribus consideration) show higher cost at lower efficiencies

	9,000 TEU vessel	18,000 TEU vessel	Change
Yard peak	1.2	1.36	+13.3%
Yard slots	14,525	16,340	+12.5%
Quay cranes	5 units	9 units	+80%
Yard cranes	17 units	30 units	+76.5%
Horizontal transport	27 units	46 units	+70.4%
Gate dispatches peak hour	54 trucks	82 trucks	+51.9%

With bigger vessels, peaks and resource requirements increase – despite constant handling volumes

Cost on the rise – while efficiencies fall

	9,000 TEU vessel	18,000 TEU vessel	Change
Quay crane utilization	59.5%	33.1%	-44.4%
Yard crane utilization	46.1%	36.2%	-21.5%
Staff	1	1.47	+46.9%
Operational cost/box	1	1.54	+54.2%
Total cost/box	1	1.50	+50.1%

## How can terminals respond to transshipment related challenges?

- Different solutions are possible to respond to reduced efficiencies:
  - Expanding capacity by adding equipment and space ➡ costly and market conditions need to be considered
  - Promoting the optimisation of available resources ➡ most terminals feature significant hidden reserves which may alleviate problems resulting from volatile markets before major infrastructure investments, e.g.

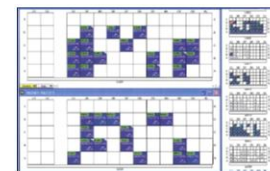
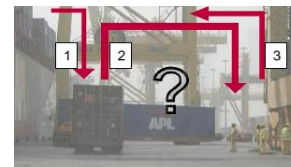
➤ Work organisation amendments

All having lunch at the same time and no harmonised shift system?



➤ Harmonise interdependencies

What limits quay crane performance, going the extra mile, a mismatch system vs reality?



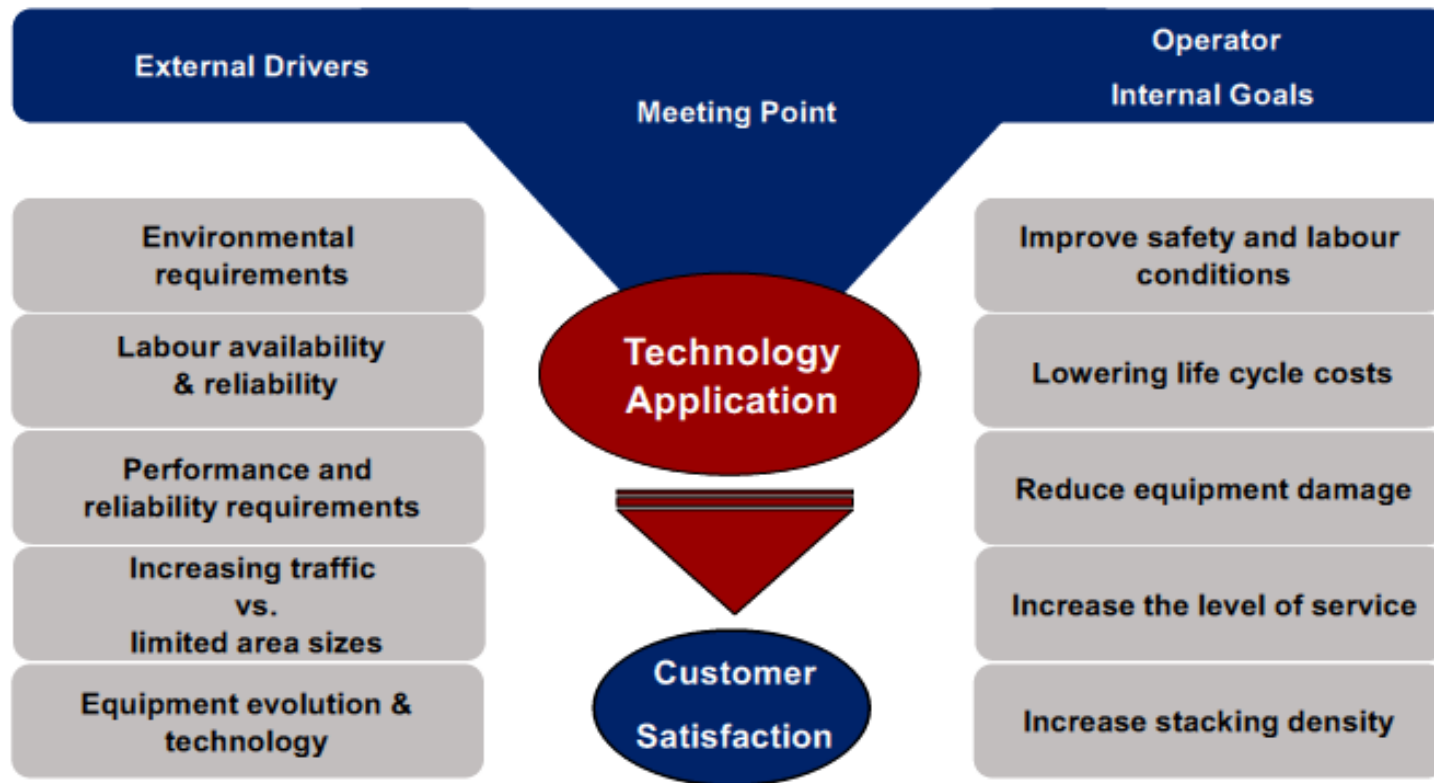
➤ Maintenance schemes & procedures

Tools left where last needed or maintenance schemes and procedures organised?



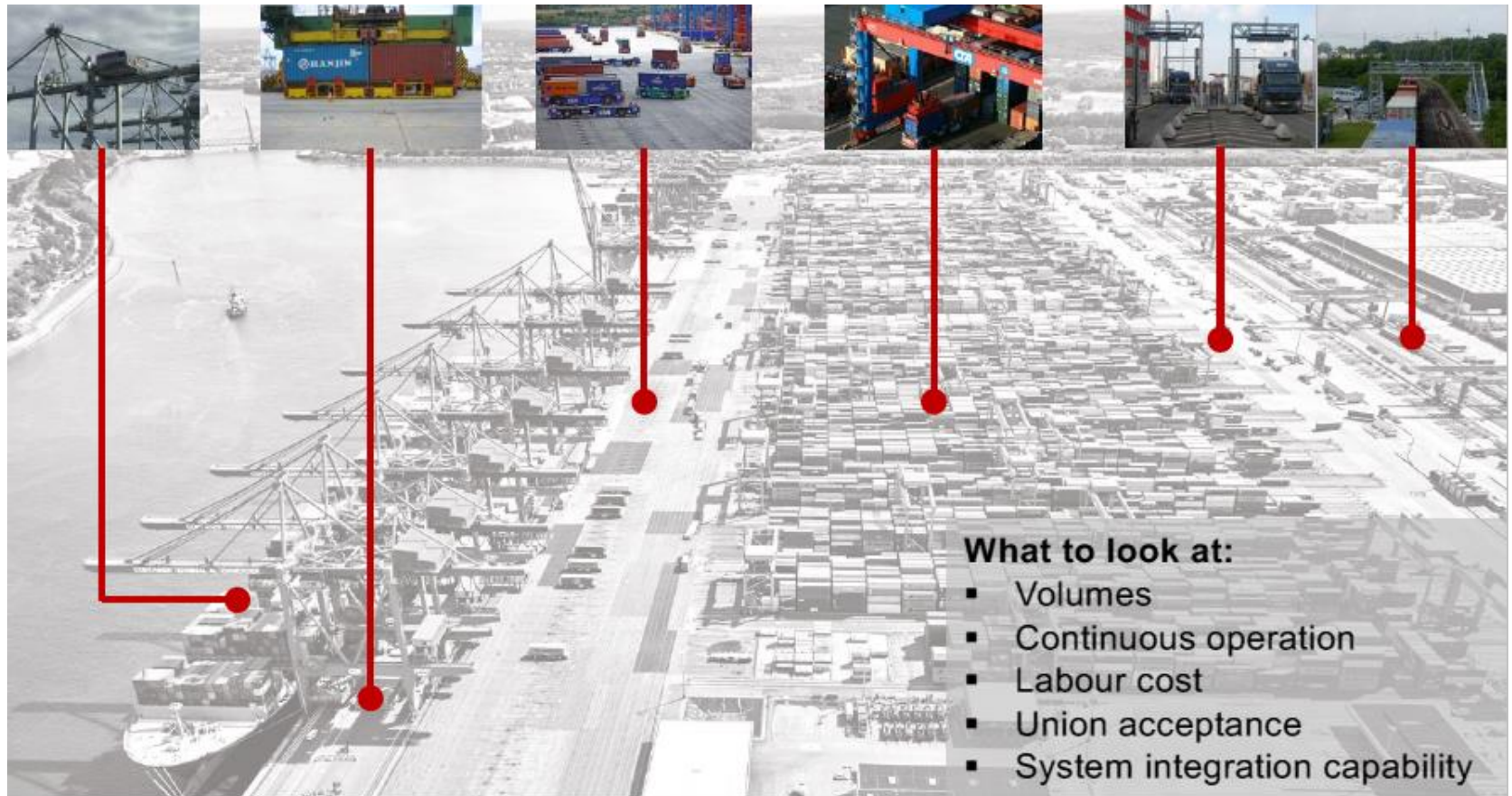
## How can terminals respond to transshipment related challenges?

- Technology application criteria have to be considered; big bang vs. incremental approach in decision about automation - choose a mix-and-match process



## How can terminals respond to transshipment related challenges?

- Understanding the benefits and complexity of automation is key to determine the right mix



### What to look at:

- Volumes
- Continuous operation
- Labour cost
- Union acceptance
- System integration capability

## Are additional transshipment terminals in the Mediterranean still attractive?

- The conditions are usually ripe for transshipment operations at a gateway terminal when there is **sufficient spare terminal capacity** available **without** having to make **major new investments** in infrastructure or equipment and when there is expressed demand from existing port users.
- It is basically an extra that **utilises existing resources** and contributes to revenue earning capacity and profitability (“the cream on the cake”).
- A pure transshipment terminal needs a **critical mass** of handling volumes which is difficult to achieve when there are already many other terminals offering similar services.
- The majority of **shipping lines** has already **invested in transshipment terminal** facilities.
- A terminal becomes more attractive as transshipment hub when it can offer **efficient and state-of-the-art operations**.
- Considering all the above, gateway terminals with additional transshipment facilities might be useful in North Africa, but for all other countries terminals should rather **invest first in operations improvement before additional infrastructure** in order to become/stay attractive for shipping lines.

**Thank you very much for your attention.**

**For further information please contact**

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