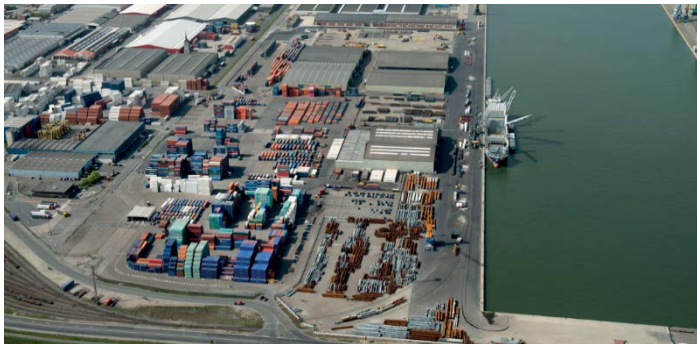


Rail CROSSROADS

Session 2: Terminal operations – Moving Forward

Maarten Geerardyn

Market Place Seminar



Terminal Operations – moving forward



- NHS
- The terminal as a gateway
 - Function
 - Competing gateways
 - Market drivers
- The logistics environment is changing
 - Logistics integration is unfolding
 - Logistics in the post-fordian era
- Rail constraints
- Moving forward

Terminal Operations – Moving Forward

NHS



- NHS is a JV company – Nova Natie & PSA Antwerp
- Breakbulk terminal operator
 - Steel
 - Project cargoes (Heavy Lifts, Machinery, Industrial Projects)
- Labour intensive:
The breakbulk sector represents about 7% of total throughput, but 30% of total dock labour
- 3 m tons handled last year at NHS
of which 1 m tons via rail, mainly for export
- Non-standardized operations

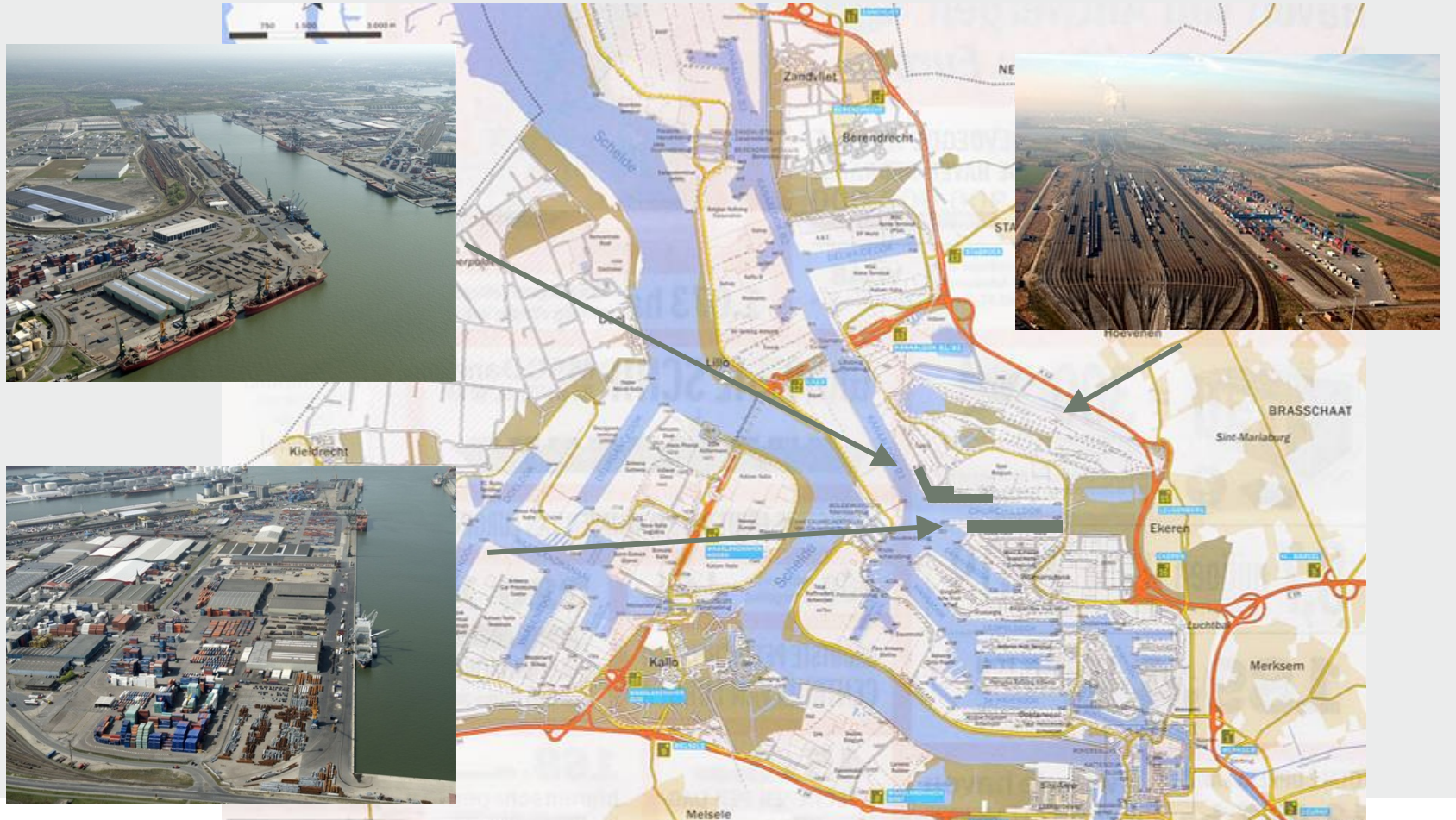


LOCATION

NHS



- Location in the port: Churchill Dock / Antwerp-North Rail Corridor



Terminal Operations – Moving Forward

NHS



Various influences on breakbulk cargo handling:

- Type of cargo
- Packaging
- Berthing facilities
- Type of ship
- Handling equipment
- Stowage plan
- Lashing and securing
- Restrictions at other ports
- Safety regulations
- Atmospheric circumstances



Terminal Operations – Moving Forward

The terminal as a gateway



Function

- The terminal as a gateway:
 - Conjunction between rail and ship
 - Existence of conflicting interests
 - Change of ownership
 - Change of liabilities
 - Change of transportmode
- Customers do not always have a modal choice
- Antwerp: a unique gateway

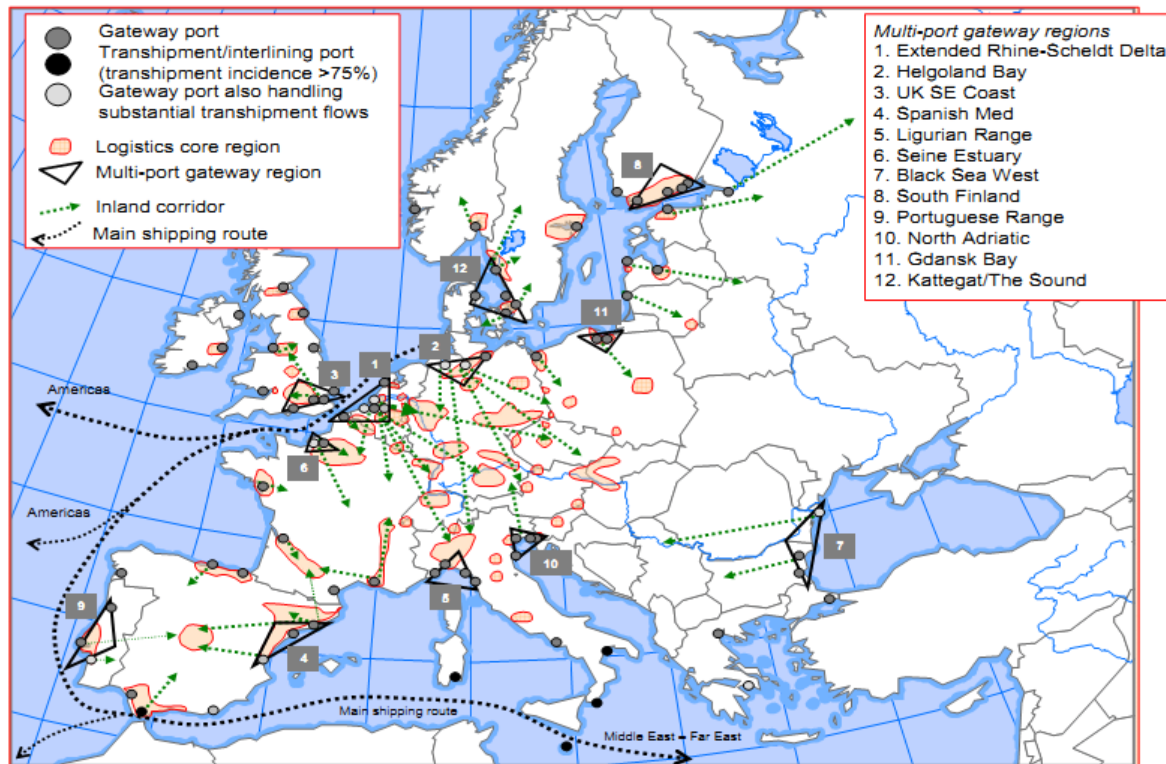
Terminal Operations – Moving Forward

The terminal as a gateway



Competing Gateways

- Industrial site locations
- Hinterland connections



Source: C-MAT

Terminal Operations – Moving Forward

The terminal as a gateway



Market drivers

- Breakbulk market:
 - Traditional model: Stevedore for Liner cargo
 - Trend: Terminal operator for Semi-Liner and Non-Liner cargo
 - Breakbulk vs containers
- Increasing impact from the industry (shippers & receivers)
- Industry has other expectations and concerns (PORT = RISK!!):
 - Quality
 - IT (black-box)
 - Safety
 - Security

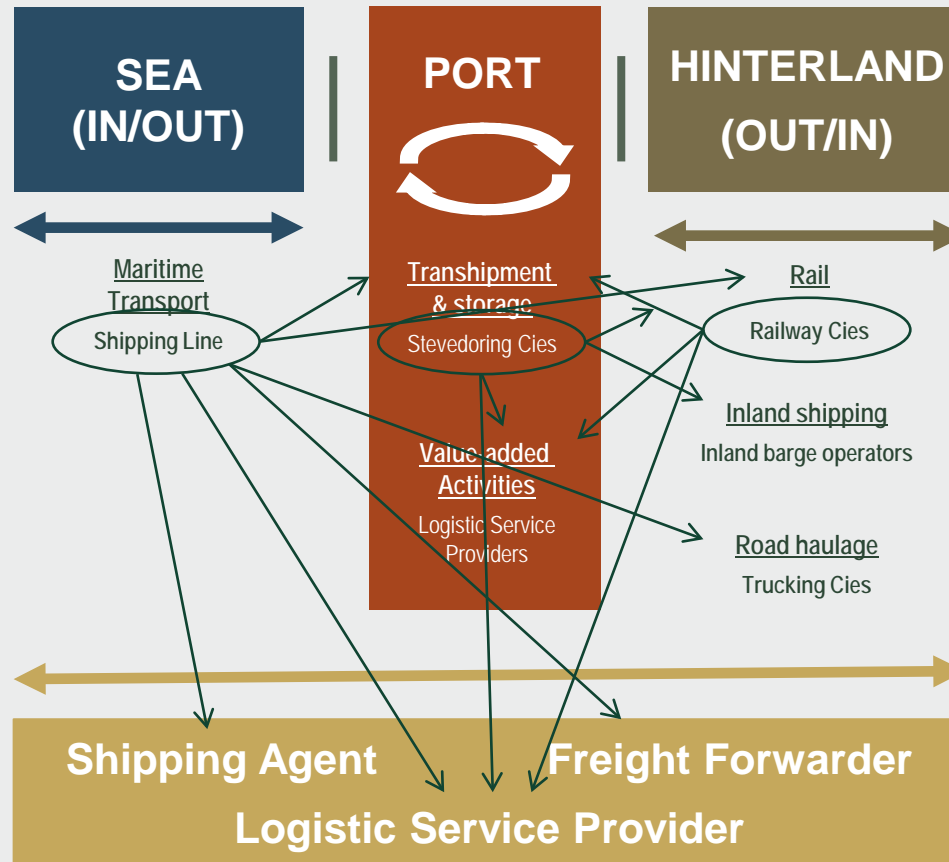
The industry's supply chain will include ports and terminals.

Terminal Operations – Moving Forward

The logistics environment is changing



Logistics integration is unfolding: traditional roles are changing



Source: C-MAT

Terminal Operations – Moving Forward

The logistics environment is changing



Logistics in the post-fordian era

- Transport costs have increased from 30-40% of total logistics cost up towards 60% in the last two decades
- Delivery within 24h will become the rule: inventory !
- Pressure on infrastructural capacity, reliability and rate stability
- Environmental, regulatory and security issues are omnipresent
- Increasing complexity of supply chains:

Competition in the 21st century is no longer one between enterprises, but has become a supply chain competition.



Important focus area's when operating a terminal:

- Optimization of
 - Berth planning
 - Yard planning
 - Equipment and infrastructure planning
 - Gate planning
 - Workforce planning
- Value added service planning
- Synchronization of all terminal operations, equipment and workforce

Terminal Operations – Moving Forward

Rail constraints



- Servicing by the rail operators:
 - Critical
 - Own bundle/locomotive not always possible
- The terminal is used as an extended warehouse
 - Small orders
 - Rail is driven by volume
- Collaborative planning with rail operators and shippers' involvement is required:

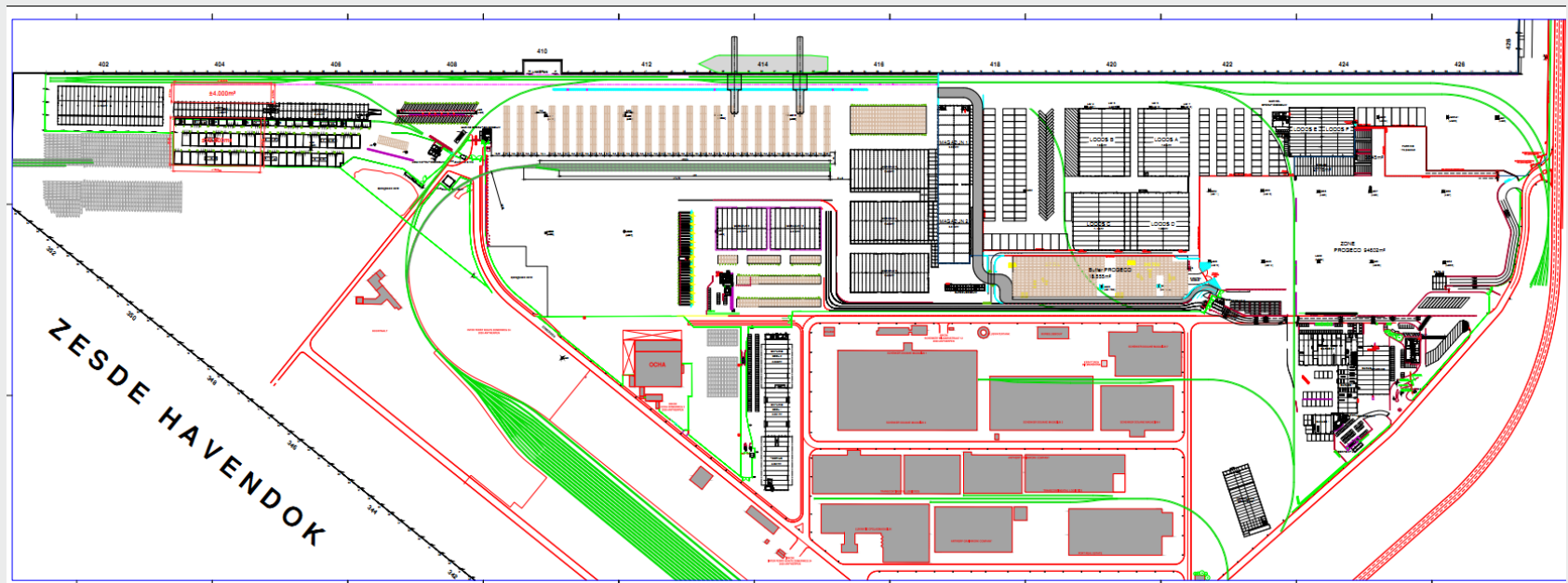
The Supply Chain must create sustainable cost savings

Terminal Operations – Moving Forward

Rail constraints



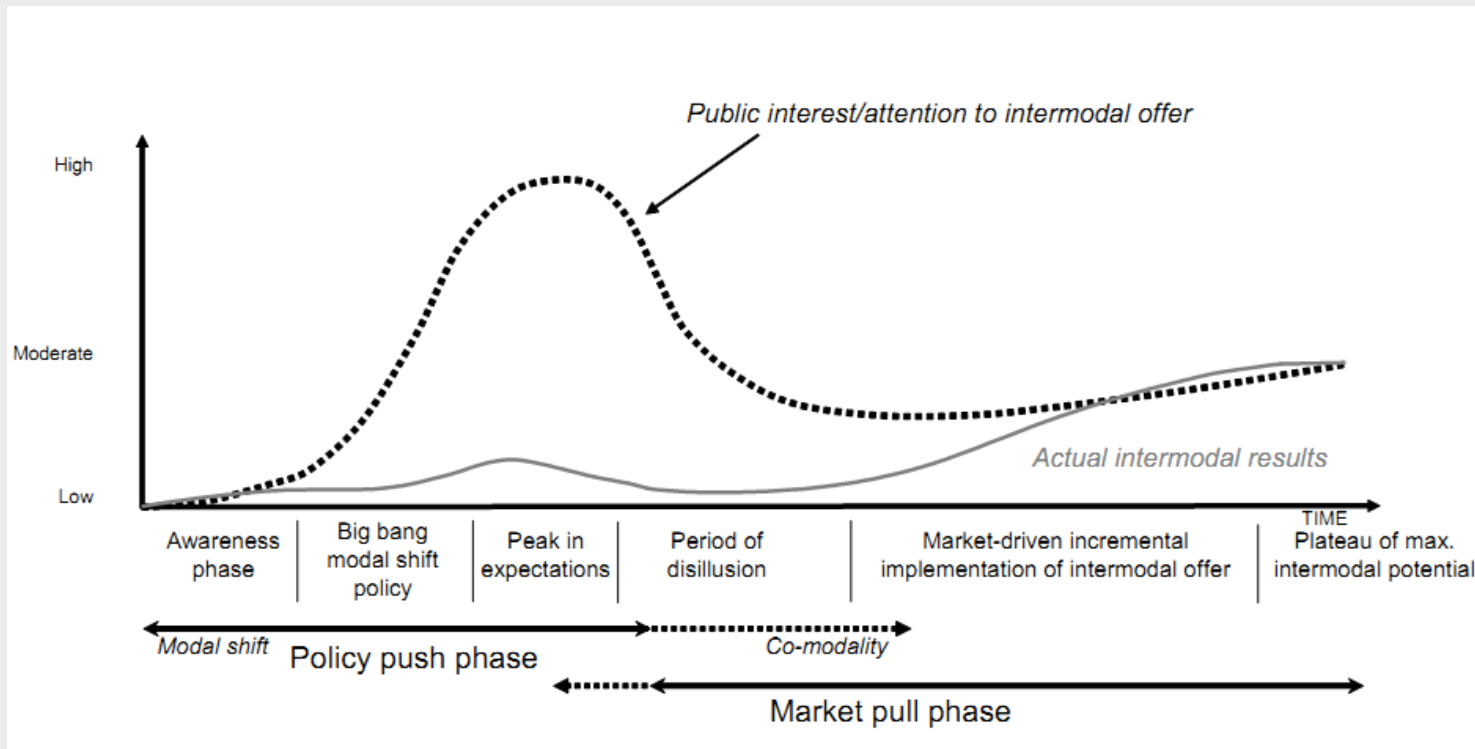
Physical constraints on a terminal:



Current rail infrastructure on breakbulk terminals is not adapted to modern needs.

Terminal Operations – Moving Forward

Moving Forward



Source: C-MAT

The modal shift will not happen just because governments think it is better or greener (Geert Pauwels, B Logistics in 'Ports & Business July/Sept 15' edition)

Terminal Operations – Moving Forward

Moving Forward



- Improve the collaboration between Shippers, Rail Operators and Terminal Operators
- Find a solution for single wagon loads
 - Innovation in rail products
 - Example: IFB operated Xpress formula's combined container and conventional railcars
 - Railport Antwerpen: 2Y pilot
- Clustering or Bundling of volumes – competing gateways
- Last mile: network structure between ports and terminals to increase efficiency and cost effectiveness
- Breakbulk terminals have to upgrade their rail infrastructure
- Terminal operators will further evolve from pure handling to servicing cargo flows as part of the supply chain

The winners will be the ports and terminals that can align infrastructure and information systems with the global business strategies of their customers.

Terminal Operations – Moving Forward

Moving Forward



If we want to change the results and we cannot change the circumstances, than we have to change the possibilities

THANK YOU



Maarten Geerardyn
Antwerpen, September 24th 2015