

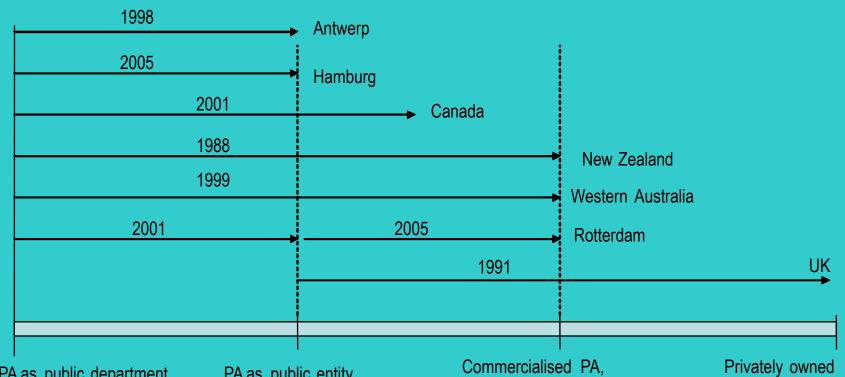
Ensuring hinterland access; the role of port authorities

Dr. Peter W. de Langen, Erasmus University Rotterdam & Port of Rotterdam Authority

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Context: Port authorities are increasingly autonomous and commercial.....



PA as public department with public goals and direct public influence

PA as public entity with substantial autonomy and public goals

Commercialised PA, indirect public influence Mainly through shareholding. Public and commercial goals

Privately owned PA, no direct or indirect public involvement





....In an increasingly international market....

EUROPE APMI Giaia Tauro Tionjin Xiamen Antwerp Wilhelmshaven Dalian Kaohsuna Zeebrugge Brememaven Yantian: Le Harve Genoa Shanghai Yokohama Glynia Algeriras Constanz Port Elizabeth Kingston Tacoma Oakland CHINA Los Angeles HPH Hong Kong Guangyang Yantai (China) Qingdao **AMERICAS** Lazaro Cardella APMT ASIA Agaba Alexandria Jeddah Port Casim Port Soid El Dekhelin Diibouti Salalah Tanzania Vsakhapatnam Mumbai **Buenos Aires** Abidian Tema Laem Chabana Buenos Aires onne Tanjung Pelepas

Global terminal operators' percentage share of world container throughput (Percentages)

| Global terminal operators | 2004 | 2005 | 2006 |
|--|-------|-------|-------|
| НРН | 13 | 13 | 13 |
| PSA International | 9 | 11 | 12 |
| APM Terminals | 9 | 10 | 10 |
| DP World ^a | 9 | 9 | 10 |
| Cosco Pacific | 6 | 7 | 7 |
| Eurogate | 3 | 3 | 3 |
| SSA Marine | 3 | 3 | 3 |
| Total share of world throughput | 53 | 56 | 57 |
| World throughput (in millions of TEUs) | 356.6 | 387.7 | 440.0 |

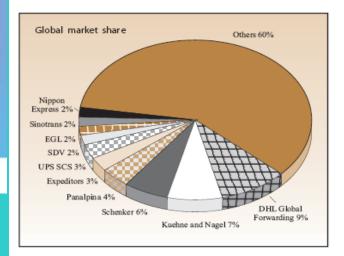
 $Source: \ \ Adapted \ by \ the \ UNCTAD \ secretariat \ from \ information \ obtained \ by \ Dynamar \ B.V.$

DP World includes CSX World Terminals and P&O Ports for all three years.

Europe-Far East trade: percentage slot capacity share by line/ grouping ²⁶ (Percentage share)

| Operator | Mid-2005 | Mid-2006 |
|----------------------------|----------|----------|
| Maersk Sealand | 12.5 | 21.4 |
| Grand Alliance | 22.2 | 14.5 |
| New World Alliance | 10.7 | 12.9 |
| K Line and Yang Ming | 6.8 | 5.8 |
| CMA CGM/Norasia and others | 9.7 | 5.7 |
| CSAV NORASIA | 1.2 | 2.2 |
| Total | 63.1 | 62.5 |

Total freight forwarding market: market share



Source: Datamonitor.

APMT

• HPH

DPW

PSA

GLOBAL: Mining Firms Bulk Up, Echoing Big Oil Mergers

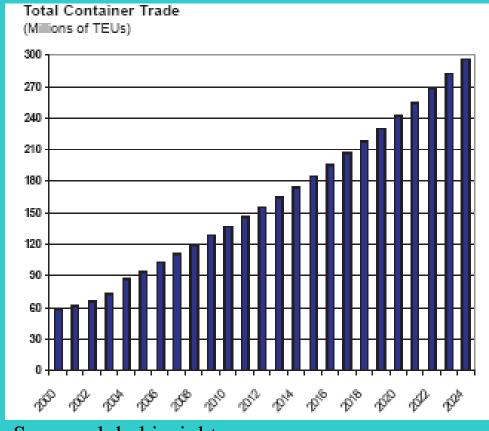
by Patrick Barta and Robert Guy Matthews, Wall Street Journal December 18th, 2007

For years now, mining companies have gotten rich supplying the raw materials that have fueled consumer booms from China and India to Brazil. As commodities prices soared, these companies socked away cash and snapped up rivals. Now they are embarking on another round of deals that promises a new class of juggernauts. The resulting megaminers would have great influence over the cost of raw materials like iron ore, copper and uranium — and, by extension, the price of consumer electronics, cars and new apartment blocks.



competitive factor between

- ⇒ In general hinterland costs are a large part of door-to-door costs
- Capacity bottlenecks and congestion
- → Opportunities to improve chain efficiency through better coordination
- ⇒ And a need for action given expected growth

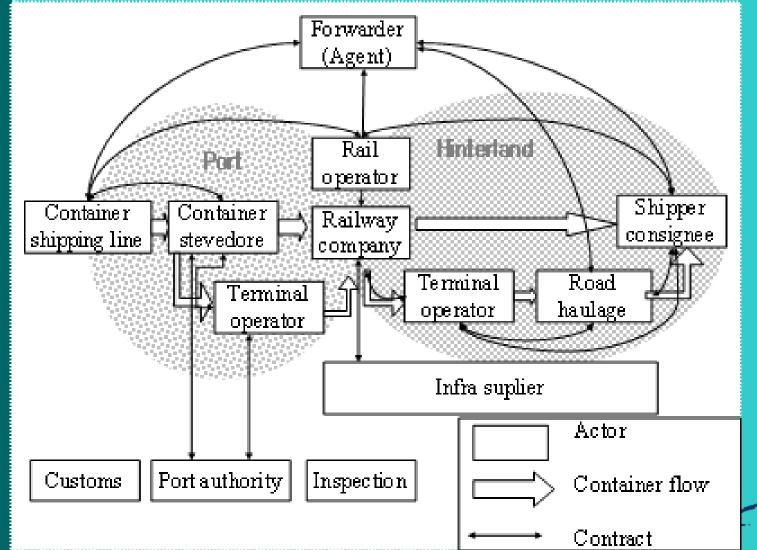


Source global insight





...and interorganisational issues are center stage.







What is the role of the PA in this environment?

Core activities

Traffic management

- -Effective, safe & efficient vessel management
- -Partnerships for traffic management on road and rail

Area management

- -Provide space (to new companies) for growth
- -Intensify land use
- -Develop the required infrastrucure
- -Improve environmental quality port area

Customer management

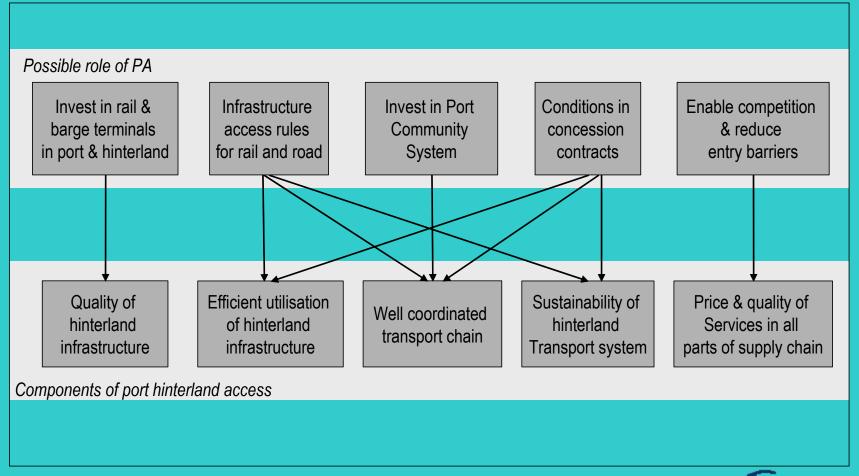
- -Attract new customers
- -Create customer satisfaction
- -Provide value added for customers as 'business partner'

Stakeholder management

- -Invest in partnership in an attractive location climate
- -Influence relevant regulation
- -Invest in license to operate

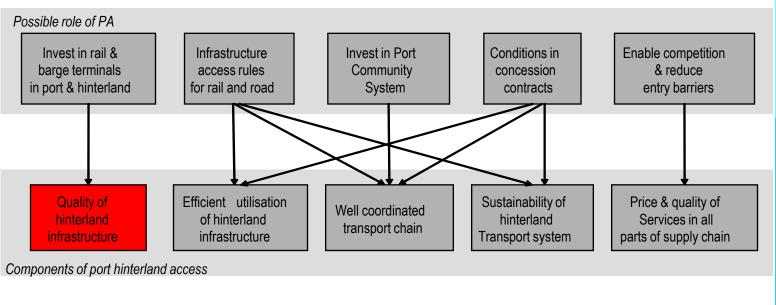


Possible roles for PAs



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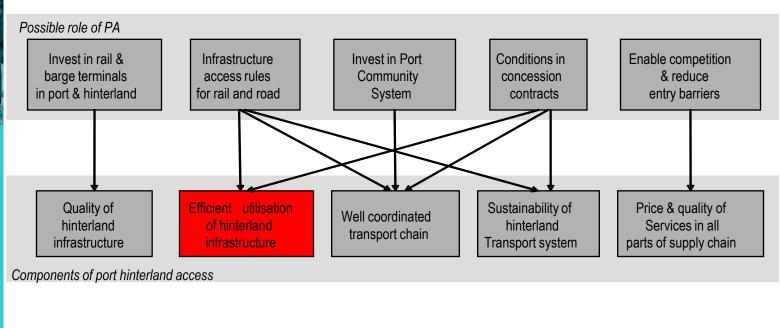




Sufficient capacity of infrastructure is required.
Expansion required given volume growth



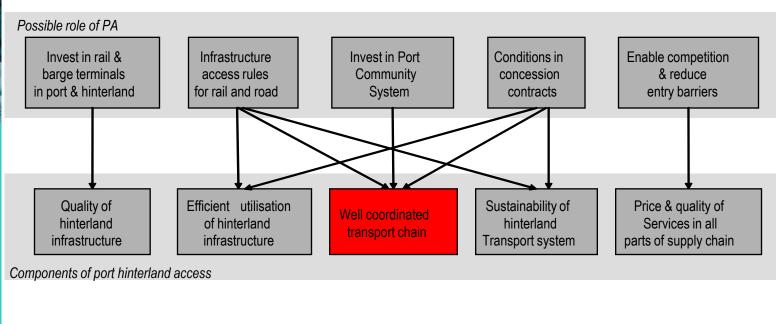




Utilisation of infrastructure is at least equally important
Efficient utilisation does not emerge 'spontaneously'
Clear opportunities, both in terms of traffic management and in terms of mobility management







Coordination between various firms in door to door chain is required This coordination does not arise spontaneously

free rider

disbalance of costs and benefits

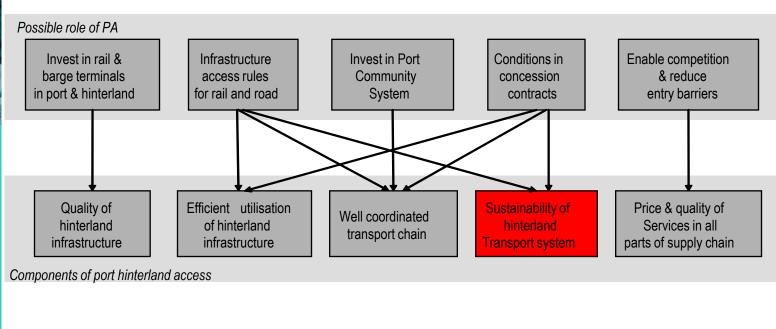
short term focus/lack of resources

no supply chain orientation

More coordination has substantial benefits



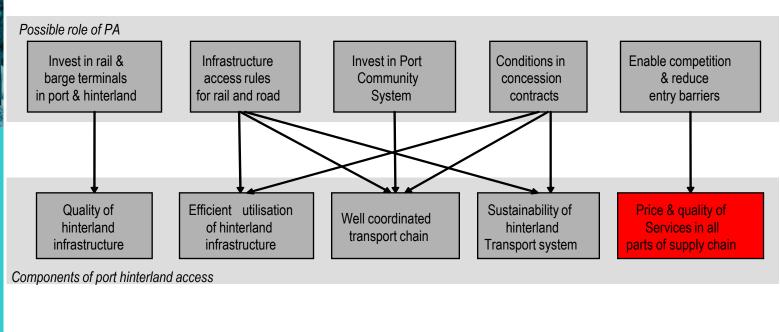




Sustainability of transport chain becomes important for license to operate Sustainability does not emerge 'spontaneously' Especially relevant giving growing volumes



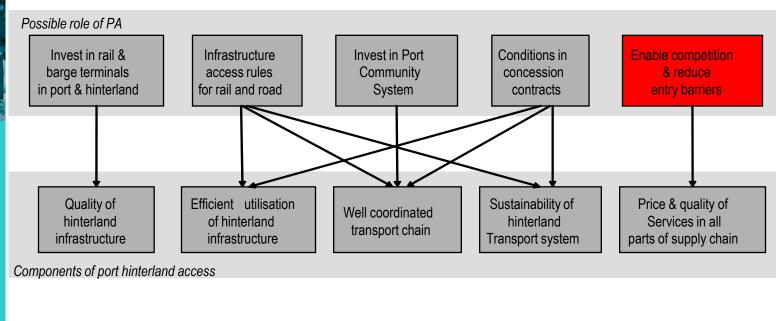




Competitive price & quality levels in all parts of chain are required Market dominance may reduce price and quality levels







Securing competition will contribute to price & quality of services Competition may not always be attractive from profit maximisation perspective of PA

PAs can put efforts to reduce entry barriers

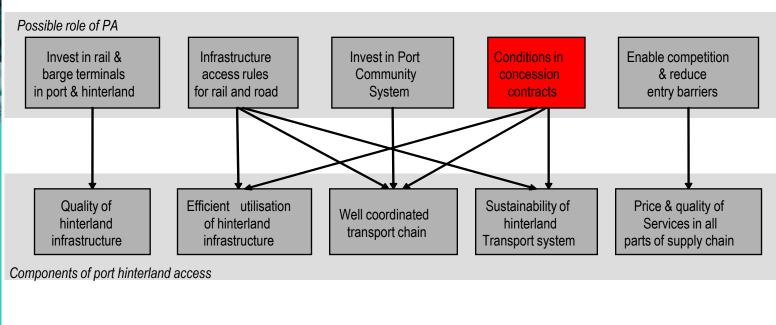
Regulatory entry barriers (e.g. rail market)

Lack of suitable locations

Investments in fixed assets

Competition may be problematic due to large MES in relation to market size. In this case competition for the market may be the second best





Setting conditions in concession contracts can contribute to sustainability, coordination in transport chains, and efficient use of infrastructure

Modal split garantuees

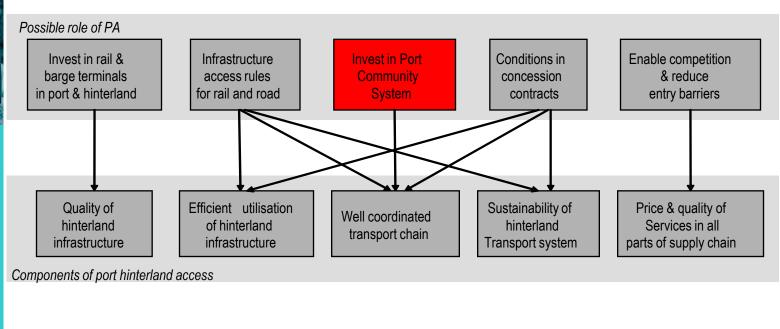
Use of Port Community System

Service level agreements

Opening hours/peak shaving



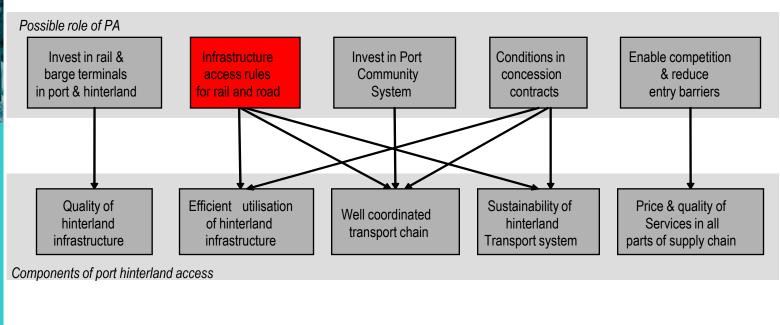




Port community system is crucial to ensure data exchange in port Connections with customs & inspections Investments in PCS are a collective action problem Role for PA to jointly invest in PCS







Infrastructure access rules can improve utilisation, coordination in transport chains and sustainability

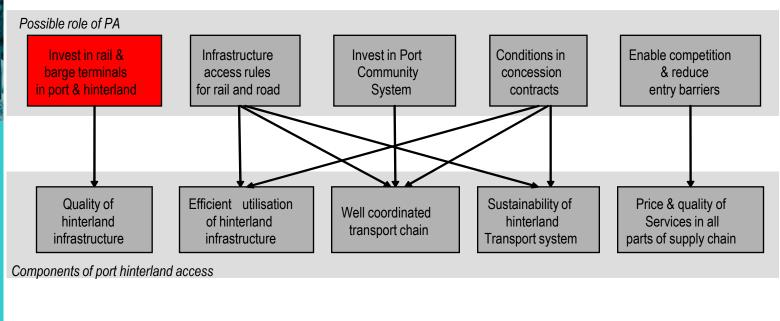
Only allow clean trucks

Allocate slots (e.g. rail)

Link infrastructure access to terminal handling slots

PA not by definition in well positioned to develop infra access rules, but may play a role.





PA has planning initiative in port
Forward looking planning & investments required
Beyond traditional port area, ports may invest in terminal capacity as well.
Who takes the planning initiative for inland terminals? For terminals with captive cargo, either large shippers or regional agencies. For 'transferium' type inland

terminals situation is less clear. Pas may need to play a role here.

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