# A survey on port financing and charging systems in Europe

## Case-studies on port development projects

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Michaël Dooms

Michael.Dooms@vub.ac.be

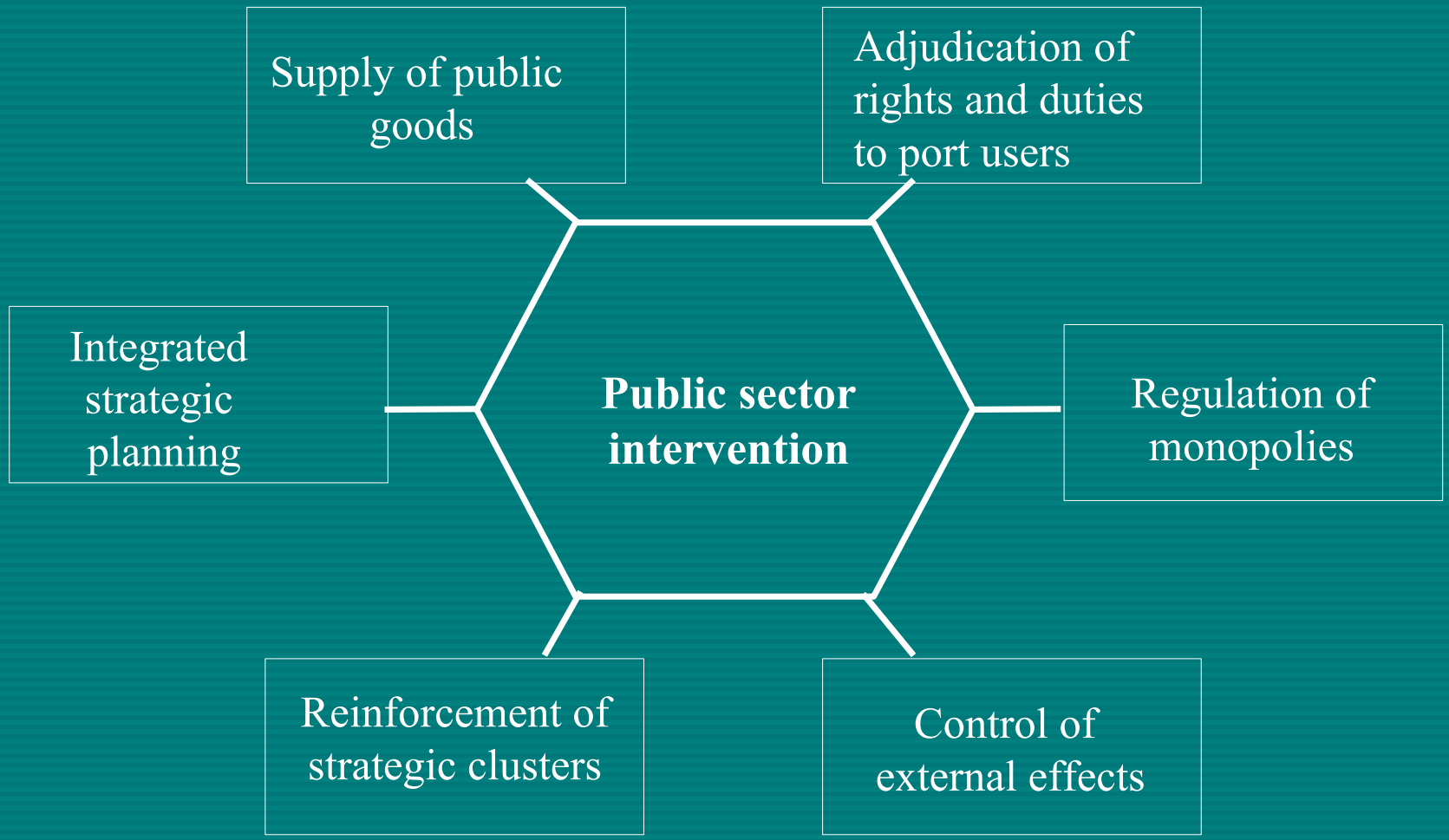
# Agenda

- Background;
- Types of public intervention in seaports;
- Types of public financing in seaports;
- Is public intervention in seaports justified?;
- Case-study;
- Conclusions of former research and EC literature;
- Policy implications;
- Objectives and set-up of the current study;
- Interim conclusions;
- Case-studies on project financing;
- Conclusions and issues for discussion.

# Background

- In general, the development of the port sector in the EU depends in a large measure on public sector intervention:
  - Public control on/of the port's management;
  - Financial support mechanisms (subsidies/charging practices).
- General concern of the EC: the competitiveness of the ports in the trans-european transport networks (TEN-T):
  - Do financial relations between the ports and the public sector under the form of public financing influence the competitiveness of the port system as a whole, as well as the competition between ports?
  - Need for a level playing field among ports, given divergent charging practices.
- Recovery of infrastructure costs: the 'user pays' principle.

# Types of public intervention in seaports



# Types of public financing

| FINANCING AUTHORITY / RELEVANT CATEGORIES | National Government | Regional Government | Local Government | Other |
|---|---|---|---|---|
| ***Access Infrastructures*** | | | | |
| access channels (including disposal of dredging material) | | | | |
| navigation aids | | | | |
| turning basins | | | | |
| breakwaters | | | | |
| roads accessing the ports and in the ports but outside terminals | | | | |
| rails accessing the port and in the ports but outside terminals | | | | |
| inland waterways | | | | |
| ***Terminal-related infrastructures*** | | | | |
| quays / docks | | | | |
| jetties | | | | |
| stacking yards | | | | |
| land reclamation | | | | |
| ***Suprastructures*** | | | | |
| roads and rail at the terminal | | | | |
| terminal paving / surface finishing | | | | |
| port / office buildings | | | | |
| warehouses | | | | |
| cranes | | | | |
| mobile equipment | | | | |
| ***Operational Management*** | | | | |
| only direct subsidies | | | | |
| ***Legal Provisions*** | | | | |

# Is public intervention in seaports justified?

- Large differences among member states in terms of public investment volumes in the seaport sector:
  - EC has a perception of distorted competition;
  - No formal notification obligation for member states, but information on the past five years needs to be accessible by the EC if an audit appears necessary.
- Based on existing EC documents and legislation:
  - Given the diversity and complexity of the seaport sector, a case-by-case application of the criteria of art. 87 of the Treaty is adopted:
    - Is the infrastructure investment built using public funding?
    - Does the infrastructure investment lead to market distortions?
    - Does the infrastructure investment favour one firm or a selective group of firms?
    - Does the infrastructure investment influence trade patterns between member states?

# Case study: the Flemish seaports

- Notification of amounts (2001-2004) for:
  - Maintenance and exploitation of maritime access routes;
  - Maintenance and exploitation of the sealocks;
  - Project related infrastructure (docks, quays);
  - Maintenance of berths along the maritime access routes.
- EC has accepted the notification.
- Element of non-discriminatory access for all users seems important (multi-user principle).
- Limited intervention in project related infrastructure in order to increase the financial responsibility of port authorities.

# Main conclusions of former research (e.g. ATENCO) and EC documents (1)

- Different price elasticity of commodities: general cargo, containers and ro-ro very elastic, liquid and dry bulk relatively inelastic to changes in prices;
- Public financing of ports plays an important role;
- Wide diversity of charging systems in ports;
- Difficulties to obtain reliable data on financial flows, lack of transparency of port accounting systems;
- Very high sector complexity (port ownership, port objectives, port autonomy, scope of port activities);
- The EC has more problems with the non-recovery of costs than with the occurrence of public intervention itself.

# Main conclusions of former research (e.g. ATENCO) and EC documents (2)

- Existence of 'hidden' or 'subtle' public support, often linked to the 'administrative heritage' of the past.
- It is impossible to fully compare seaports to other, more conventional transport modes (road, rail).
- Growing agreement among port authorities and port users on transparency of accounts and accounting systems.
- Growing agreement among port authorities on the principle of full cost recovery for operational activities for which the port authority is autonomous and solely responsible.

# Policy implications (1)

- Due to the lack of transparency and the high sectoral complexity, it is very difficult for the EC to design a regulatory framework for the seaport sector:
  - Risk of ineffective and/or inappropriate measures, e.g. the implementation of uniform charging practices;
  - Risk of adopting ineffective principles, e.g. marginal cost pricing.
- As a result, national and regional governments, as well as port authorities, need to closely follow-up new EC initiatives to avoid ineffective and inappropriate regulation.

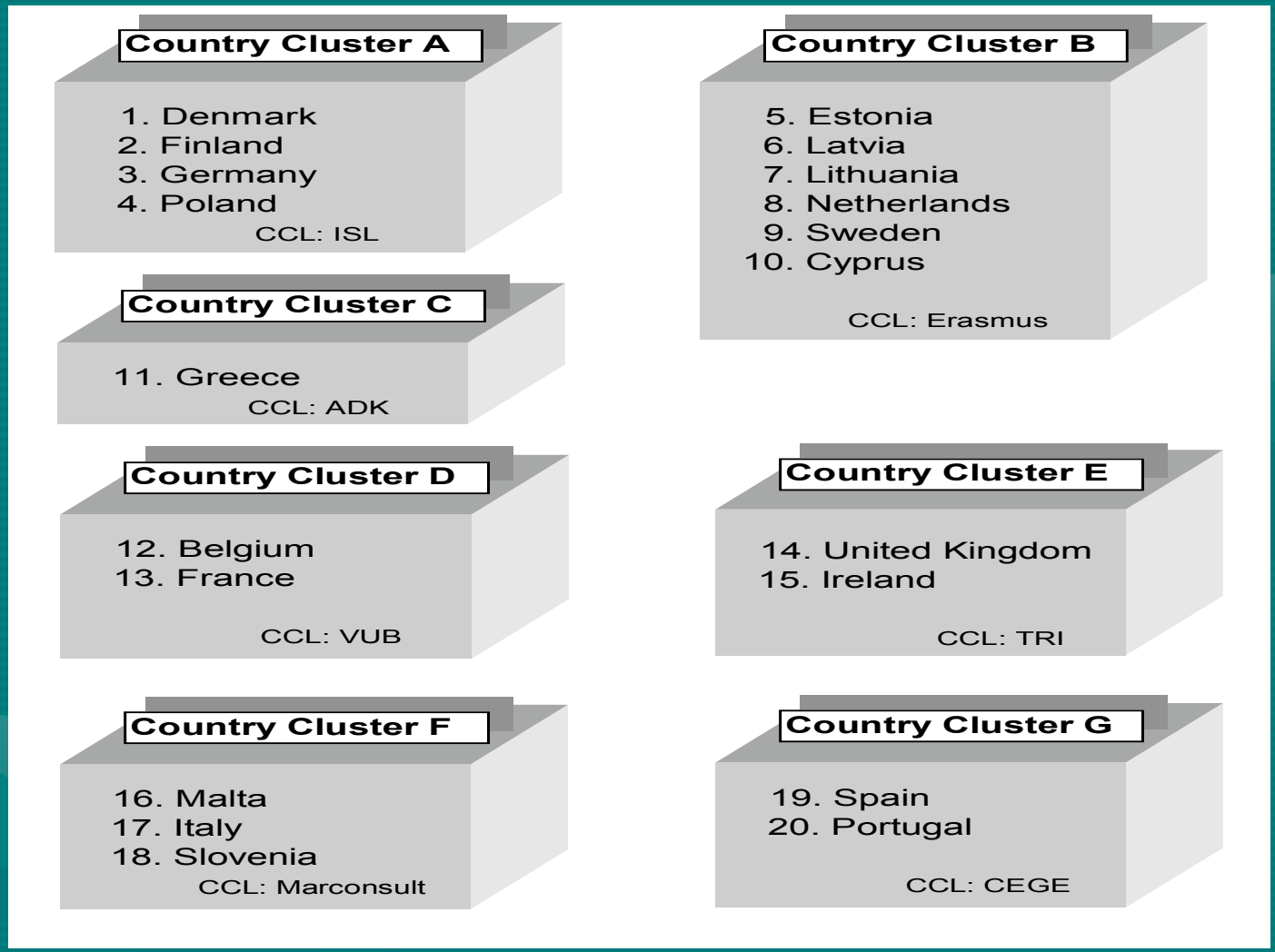
# Policy implications (2)

- The improved transparency of charging practices and accounting systems should ameliorate the sometimes tense relationship between the seaport sector and the EC, especially given that:
  - EU-ports are very efficient in comparison with other world regions;
  - A growing number of EU-ports already applies full cost recovery for activities which fall under its responsibilities.
- The EC has recently commissioned a study on the public financing of seaports.

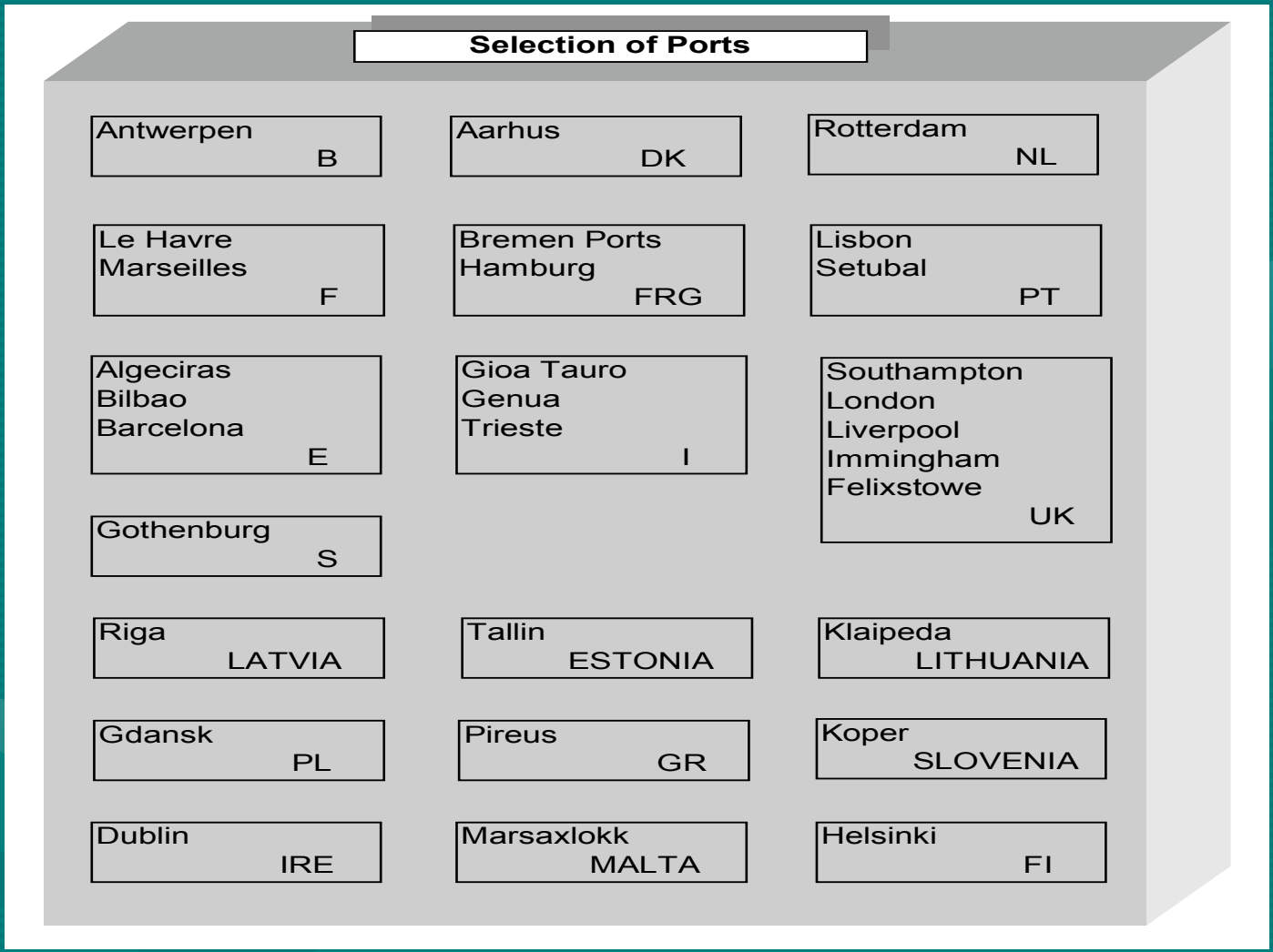
# Objectives and set-up of the study (1)

- Objective:
  - Enhance transparency with regard to the financial flows between the public purse and the port sector;
  - Supplement the existing information base through the analysis of different information sources with regard to port financing and charging.
- Scope:
  - 20 Member states which have seaports on their territory.
- Set-up:
  - Country clusters;
  - Sample of 30 seaports.

# Objectives and set-up of the study (2)



# Objectives and set-up of the study (3)



# Interim conclusion (1)

- The paradox of EU port policy: many initiatives are undertaken and financed in order to promote environment friendly transport (intermodality, short-sea shipping, inland navigation, rail), but the seaport sector is considered inefficient and a source of market distortions, though seaports are the key driving force, as nodal points, of European intermodal network expansion.
- An ideological shift in the debate is necessary: seaports as driving forces for sustainable development, both on the socio-economic level and the ecological level.
- The community of port stakeholders (port authorities, port users, port workers) needs to align its objectives and avoid negative, public comments on (alleged) port inefficiencies. Such goal alignment is critical to avoid ineffective and unwanted EC intervention.

# Interim conclusion (2)

- If the community of stakeholders can agree that cost recovery should be a key guiding principle in port investment and operations, the need and pressure for EC intervention will diminish, subject to the following conditions:
  - A sufficient degree of harmonization of port statistics and port cost categories;
  - More standardized port accounting systems (e.g. Activity Based Costing);
  - Greater transparency of financial flows to/from the port authority.
- The study in progress on public financing provides the community of port stakeholders with a window of opportunity to show that the conditions of a level playing field are fulfilled by providing full access to the relevant information and exhibiting a positive attitude vis-à-vis EC information requests (e.g. the Flemish seaports).

# Case-studies (1)

- Project-related funding is the most important financial flow to port authorities (compared to the amounts for exploitation and maintenance expenses).
- Based on factual information on recent and planned port development projects in Belgium, France and Germany.
- Four projects:
  - Deurganckdok (Antwerp);
  - Port 2000 (Le Havre);
  - FOS 2XL (Marseilles);
  - Jade Weser Port (Bremen - Wilhelmshaven).

# Case studies (2)

- Comparison of financing structures.
- Sources:
  - Port authorities' data;
  - Feasibility studies;
  - Press;
  - Official reports (e.g. Court of Auditors).

# Deurganckdok (1)

- Decision to build: 1998.
- Construction of a new tidal dock with approx. 5000m of quay length, 270 ha, capacity approx. 6,5 million TEU (OSC, 2003).
- Financing parties from the public sector:
  - Flemish Region;
  - Port Authority;
  - NMBS/SNCB (rail operator and infrastructure manager).
- Public sector responsible for:
  - Construction of quays, including dredging works;
  - Construction of hinterland connections (road, rail).

# Deurganckdok (2)

- Legal framework for financing by the Flemish Region:

Table 8: Comparison of the old and new financing regimes

| | quays | dredging for construction |
|---|---|---|
| Financing regime 10/11/1993 | 60% | 100% |
| Financing regime 13/07/2001 | 30% (20% from 1/1/2004) | 50% |
| Transitional regime for specific* projects until 31/12/2004 | 60% (Provided a detailed phasing and fixed maximum amounts) | 100% (Provided a detailed phasing and fixed maximum amounts) |

Source: Report of the Belgian Court of Auditors to the Flemish Parliament (2005)

# Deurganckdok (3)

Table 7: Overview of the invested amounts in the Deurganckdok project by the Flemish public sector

| Type of cost | Total | Flemish Region | % | Others | % |
|---|---|---|---|---|---|
| Pre-studies | 2.327.526,62 | 1.928.185,37 | 83% | 399.341,25 | 17% |
| Additional Studies | 1.518.036,69 | 637.191,36 | 42% | 880.845,33 | 58% |
| Quays | 247.972.313,10 | 147.956.670,13 | 60% | 100.015.641,97 | 40% |
| Claims | 28.212.482,57 | 16.587.495,95 | 60% | 11.624.986,62 | 40% |
| Dredging | 174.238.364,38 | 174.238.364,38 | 100% | 0 | 0% |
| Other works | 20.606.229,84 | 17.493.185,78 | 85% | 3.113.044,06 | 15% |
| Roads | 34.637.085,95 | 24.263.852,04 | 70% | 10.373.233,91 | 30% |
| Expropriation | 14.849.252,65 | 14.849.252,65 | 100% | 0 | 0% |
| Social Guidance Plan | 45.855.415,28 | 41.740.480,28 | 91% | 4.114.935,00 | 9% |
| Nature compensations | 24.099.379,54 | 15.374.650,14 | 64% | 8.724.729,40 | 36% |
| **Total** | **594.316.085,62** | **455.069.328,08** | **77%** | **139.246.757,54** | **23%** |

Source: Report of the Belgian Court of Auditors to the Flemish Parliament (2005)

# Deurganckdok (4)

- Division between private and public sector:

| Financing party | Amount (mio €) | % |
|---|---|---|
| Flemish Region | 460 | 28,5% |
| Others (incl. PA) | 220 | 13,5% |
| **Total public** | **680** | **42%** |
| P&O Ports | 530 | 33% |
| PSA | 400 | 25% |
| **Total private** | **930** | **58%** |
| **General total** | **1.610** | **100%** |

# Deurganckdok (5)

- Simulation under new financing regime:
  - Ceteris paribus, the distribution of 77 (region)/23 (port authority) would be changed to 55 (port authority) / 45 (region).
- Simulation without financing for quays and dredging (cfr. press statements of government officials):
  - Ceteris paribus, the distribution would be reversed to 77 (port authority) / 23 (region).
- The new financing regime substantially increases the financial accountability of the port authority.

# Port 2000 (1)

- Extension of port facilities for container traffic in the Port of Le Havre;
- Construction of a second port entrance, incl. dredging, construction of breakwaters, etc..
- Construction of 4200m of quays (1st phase 1602m - 6 berths).
- Capacity estimated at 3-4 million TEU/year.
- Construction of hinterland connections (road, rail).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# Port 2000 (2)

- Financing structures constructed on a case-by-case basis:
  - The Port Authority submits a proposal to the State, after which negotiations start on project financing.
- Financing parties from the public sector:
  - European Commission (TEN-T, ERDF);
  - State (French Government);
  - Region and Department;
  - Port Authority;
  - French railway infrastructure manager (RFF).

# Port 2000 (3)

Table 7: Finance structure of the Port 2000 project (in million euros) (italic = public finance)

| Financing party | *Maritime access / port infrastructure* | *Environment* | *Hinterland access* | Superstructures | Total |
|---|---|---|---|---|---|
| TEN (EU) | *2,50* | | *2,21* | | 4,71 |
| ERDF (EU) | *33,10* | *5,00* | *4,02* | | 42,12 |
| Region | *19,44* | *9,91* | *23,20* | | 52,55 |
| Department | *19,44* | *9,91* | *20,20* | | 49,55 |
| RFF-SNCF* | | | *13,70* | | 13,70 |
| State | *160,10* | | *37,82* | | 197,20 |
| Port Authority | *433,60* | | | | 433,60 |
| Operators | | | | 275,00 | 275,00 |
| Sub-total | *647,27* | *45,73* | *101,15* | 275,00 | 1069,15 |
| **Total** | ***693,00*** | | ***101,15*** ** | **275,00** | **1069,15** |

* RFF = Réseau Ferré de France: French rail infrastructure manager. SNCF = French national railway operator

** Of which rail takes 92 million euros, roads 9,15 million euros.

Source: internal documents provided by the Port Authority

# Port 2000 (4)

| Financing party | Amount (mio €) | % | % |
|---|---|---|---|
| EC | 46,83 | 4,4% | 45% |
| Region/Department | 102,1 | 9,5% | |
| RFF / SNCF | 13,7 | 1,3% | |
| State | 197,20 | 18,5% | |
| Port Authority | 433,6 | 40,6% | 55% |
| **Total public** | **794,15** | **74%** | **100%** |
| Operators | 275 | 26% | |
| **Total private** | **275** | **26%** | |
| **General total** | **1069,15** | **100%** | |

# FOS 2XL (1)

Table 12: Technical characteristics of the terminals of the FOS2XL project

| | Terminal A | Terminal B |
|---|---|---|
| Draught | 14,5 to 16m (in 2012) | 14,5 to 16m (in 2012) |
| Quay length | 400m (+200m of existing quays) | 700m |
| Terminal area | +/- 30 hectare | +/- 60 hectare |
| Capacity | 300.000 TEU | 500.000 TEU |
| Rail connection | Use of existing terminal | 3 to 4 tracks of 750m to be constructed |
| Start of exploitation | Beginning 2009 | Mid 2009 |

Source: Port of Marseilles (2005) internal documents

# FOS 2XL (2)

Table 13: Financial structure of the project of the two terminals of the FOS2XL project

| Type of investment | Period | Amount (euros) |
|---|---|---|
| Dredging (access channel and dock) | 2005, 2007-2012 | 61.340.000 |
| Quays | 2006-2007 | 72.690.000 |
| Land reclamation and development | 2006-2007 | 25.010.000 |
| Hinterland and network connections | 2005-2009 | 9.230.000 |
| Others* | 2005-2009 | 7.340.000 |
| Public debate | 2004 | 400.000 |
| **Total public sector** | **2004-2012** | **176.010.000**** |
| Private sector (superstructures) | | 190.000.000 |
| **Total** | **2004-2012** | **366.010.000** |

* includes nature and other compensation

** Of which: Terminal A: 68 million euros; Terminal B: 107 million euros.

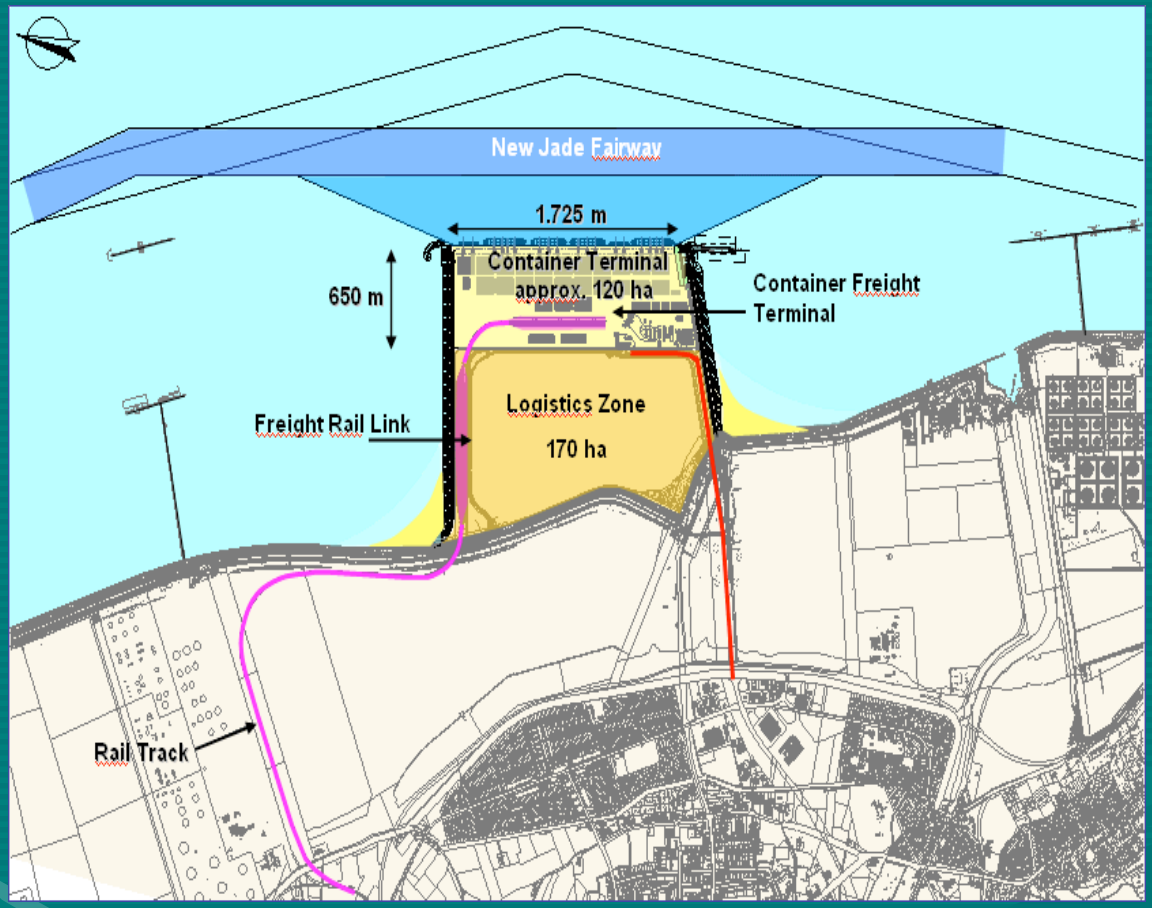
Source: Port of Marseilles (2005) internal documents and public debate report.

# FOS 2XL (3)

| Financing party | Amount (mio €) | % | % |
|---|---|---|---|
| EC | 16,7 | 4,5% | 35% |
| Region/Department | 27,4 | 7,5% | |
| State | 16,7 | 4,5% | |
| Port Authority | 115,2 | 31,5% | 65% |
| **Total public** | **176,0** | **48%** | **100%** |
| Operators | 190 | 52% | |
| **Total private** | **190** | **52%** | |
| **General total** | **366,0** | **100%** | |

# JadeWeserPort (1)

- Construction of a greenfield container terminal, with land reclamation of 370ha on the sea, dredging and waterfront structure, rail and road connections.
- Quay length 1725m, terminal surface 120ha, logistics zone 170ha, capacity 2,7 million TEU.
- Financing parties from the public sector:
  - The state of Lower Saxony;
  - The state of Bremen.


New Jade Fairway
1.725 m
Container Terminal
approx. 120 ha
650 m
Container Freight
Terminal
Logistics Zone
170 ha
Freight Rail Link
Rail Track

# JadeWeserPort (2)

| Financing party | Amount (mio €) | % |
|---|---|---|
| Lower Saxony | 510 | 57% |
| Bremen | 90 | 10% |
| **Total public** | **600** | **67%** |
| Operators | 300 | 33% |
| **Total private** | **300** | **33%** |
| **General total** | **900** | **100%** |

# Overview

| | Deurganckdok | % | Port 2000 | % | FOS 2XL | % | JadeWeserPort | % |
|---|---|---|---|---|---|---|---|---|
| **Public sector** | **680** | **42% (100%)** | **794** | **74% (100%)** | **176** | **48% (100%)** | **600** | **67% (100%)** |
| Port Authority | 140 | 9% (20%) | 434 | 41% (55%) | 115 | 32% (65%) | 0 | 0 |
| Region(s) | 460 | 29% (68%) | 102 | 10% (13%) | 27 | 8% (16%) | 600 | 67% (100%) |
| EU | 0 | 0 | 47 | 4% (6%) | 17 | 5% (10%) | 0 | 0% |
| State | 80 | 5% (12%) | 197 | 19% (25%) | 17 | 5% (10%) | 0 | 0% |
| Other | 0 | 0 | 14 | 1% (2%) | 0 | 0 | 0 | 0% |
| **Private sector** | **930** | **58%** | **275** | **26%** | **190** | **52%** | **300** | **33%** |
| **Total** | **1610** | **100%** | **1069** | **100%** | **366** | **100%** | **900** | **100%** |

# Conclusion

- Great diversity in financing structures, as well as participation of private sector.
- Great diversity in types and technical characteristics of projects (although all container terminals).
- Generally, the port authority acts as the coordinator of the project, but the degree of financial liability seems variable.
- Although the financing structures are clear, it is not always clear where the finance comes from (types of financing as well as terms and conditions of loans).
- Interim and ex-post evaluations seem to be seldom made (only ex-post evaluation of Deurganckdok), which is strange, given long lead times for development (approx. 10 years).

# Issues for discussion (1)

- Is there a need for more 'standardised' rules for project financing?
  - Hard law? Soft law?
  - What about project specificity (nautical conditions, construction of docks versus land reclamation for 'greenfield' terminals)?
  - Standard interim or ex-post evaluations?
- How far should the financial accountability of port authorities go?
  - Cfr. Flanders: despite a new legal framework which allows for partial financing, a clear message of 100% liability for future projects was given when the Deurganckdok was opened.

# Issues for discussion (2)

- If port authorities are to be made 100% liable, which will be the future?
  - Public Private Partnerships?
  - Cooperation (intra and cross-border) between ports/regions?
  - Other?
- Trade-offs between financial costs of intervention and social benefits:
  - E.g. Boost of intermodality and environmental friendly transport due to scale effects;
  - E.g. More integration between and inside transport chains.