



**Fascicule de présentation**

**Séminaire EMAR-IFSTTAR**

**Avec le soutien de la fondation Sefacil**

**6 décembre 2013**

**La planification stratégique des infrastructures  
portuaires**

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**Séminaire organisé dans les locaux**

**d'UPF/ADPF (Union des Ports de France /  
Association pour le Développement des Ports Français)**



# **« La planification stratégique des infrastructures portuaires : les enjeux et les modalités de la coordination des parties-prenantes dans des environnements complexes »**

## **Introduction au séminaire**

La planification stratégique consiste à définir un projet global, puis à mettre en œuvre ses différentes composantes dans le temps et enfin à évaluer les engagements pris, en tenant compte de la sensibilité des différentes parties-prenantes. La première étape repose sur une phase de concertation qui doit déboucher sur la définition des objectifs et sur l'identification des moyens pour y parvenir. Il s'agit de programmer un plan d'actions qui soit partagé par tous les acteurs impliqués afin de lever les ambiguïtés et de prévenir les blocages (oppositions) qui pourraient apparaître durant la phase de concrétisation. La prise en compte des intérêts, des capacités et des limites de chacun des acteurs fait donc l'objet d'une attention particulière car elle conditionne en grande partie la réussite des actions engagées. La planification stratégique est un outil évolutif qui doit être ajusté aux changements de situation économique, réglementaire, financière, sociale, etc, qui se produisent durant sa mise en œuvre. Le projet « discute » donc en permanence avec l'environnement dans lequel il s'insère. Enfin, si la phase d'évaluation (continue et finale) n'est pas souvent mise en avant dans le processus global elle n'en est pas moins essentielle car ses résultats déterminent en partie l'orientation des (nouveaux) projets.

Les autorités portuaires européennes fondent leurs stratégies sur les mécanismes et sur les outils de planification. La spécificité des actifs en jeu, les contraintes du milieu littoral, les particularités des modèles de gouvernance portuaire et territorial selon les pays, la position interscalaire de la place portuaire entre « proximité » ville-port et déterminants mondiaux de l'activité, les échelles de temps nécessaire à l'édification des infrastructures, le montant des investissements à réaliser, la représentation des parties-prenantes et notamment des acteurs non-portuaires, etc font de la planification appliquée aux ports de commerce un exercice singulier aux enjeux forts.

Au moment où les Grands Ports maritimes français re-définissent leur projets stratégiques pour la période 2014-2019, et où la Sénatrice Odette Herviaux est chargée d'une mission temporaire sur les enjeux et les perspectives de la décentralisation portuaire, le séminaire EMAR se penche sur la question de « La planification stratégique des infrastructures portuaires : les enjeux et les modalités de la coordination des parties-prenantes dans des environnements complexes ».

Dans le processus de planification stratégique des ports, la coordination entre les intérêts et les capacités des différents intervenants publics et privés constitue un enjeu majeur. Une inadéquation trop importante entre les parties en présence représente encore souvent un frein à la réalisation de grands projets d'infrastructure. Dans sa présentation, Michaël Dooms défend cette thèse en s'appuyant sur les résultats de plusieurs études de cas. Il discute en particulier la manière dont les gestionnaires de grandes infrastructures nodales, comme les autorités portuaires, intègrent les objectifs des différents intervenants, au sein des processus de planification stratégique sur le long terme. Sa présentation apporte un éclairage original sur la gestion des intervenants et des mécanismes de planification, dans des cadres géographique et temporel élargis. Il propose des pistes afin de faciliter l'intégration formelle des différents partenaires au processus de planification stratégique. Par ailleurs, à la lumière des différentes études de cas, il met en évidence les impacts potentiels des structures de gouvernance portuaire et territoriale sur la construction de la planification.

**N.B. : Le compte rendu du séminaire, rédigé par Nathan Bounie, sera prochainement disponible sur le site<sup>1</sup> de l'équipe AME-SPLOTT de l'IFSTTAR.**

### **Biographie résumée du conférencier**

Titulaire d'un Doctorat en économie appliquée\* (2010) qui a obtenu le prix Prix MEL (Palgrave Macmillan Prize in Maritime Economics and Logistics) en 2011, Michaël Dooms est maître de conférences à la Solvay Business School (Université Libre néerlandophone de Bruxelles, VUB), où il dirige le mastère de management, et enseigne la gestion et la stratégie, design organisationnel et changement. Par ailleurs, il enseigne à ITMMA Anvers et Erasmus Rotterdam. En tant que chercheur, il a participé à de nombreuses études et projets de recherche, combinant approches pluridisciplinaires (intégration de critères techniques, économiques et environnementaux) et multi-intervenants (secteurs public et privé, collectivités locales). Dans le domaine de la gestion stratégique et de la planification organisationnelle, il a été très impliqué dans le développement d'un plan stratégique pour l'opérateur d'infrastructure belge Infrabel. Depuis septembre 2013, il dirige un grand projet européen de recherche (7<sup>e</sup> programme cadre) qui porte notamment sur la mesure de la performance des ports (Portopia – [www.portopia.eu](http://www.portopia.eu)).

\* Dooms, M., 2010, *Crafting the integrative value proposition for large scale transport infrastructure hubs: a stakeholder management approach*. Université Libre néerlandophone de Bruxelles, VUB Press, 388 p.

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<sup>1</sup> [www.inrets.fr/linstitut/unites-de-recherche-unites-de-service/splott/seminaires-emar.html](http://www.inrets.fr/linstitut/unites-de-recherche-unites-de-service/splott/seminaires-emar.html)

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<sup>2</sup> Dernière mise à jour le mercredi 27 novembre 2013



## Contemporary challenges for transport infrastructure development and the value of strategic management tools

Stakeholder management, cooperation and change

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## Relevance (1)

- The economic development of countries and regions depends on the **quality of the supply of high-quality infrastructure**
- Transport infrastructure is an important enabler of economic growth
- However, the **majority of countries around the world seem unable to cope with challenges related to infrastructure development**, be it in transport, energy, retail, leisure and other industries:
  - (1) In industrialized economies, the **institutional system** is apparently unable to provide stable legal frameworks for transport infrastructure project implementation (cf. **numerous lawsuits** by stakeholders to block projects)
  - (2) In emerging economies, infrastructure development **cannot keep pace** with economic development (e.g. India, Indonesia, Brazil,...) – The sole exceptions seems to be China and some Middle East countries (see infra)




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## Relevance (2)


- As a result, a **fundamental rethinking** of the management processes behind large-scale transport infrastructure development and the related policies is needed
- Central elements in this discussion, next to technological development and innovation, are **stakeholder management, stakeholder cooperation and (governance) change**
- The question is: which strategic management theories, concepts and tools can help the organizations responsible for the management and development of large-scale transport infrastructure, to timely implement infrastructure project and avoid welfare destruction?


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## Coping with outliers (1)

- Large-scale transport infrastructure planning and development does however not fit within the **traditional unit of analysis** of strategic management (i.e. a company, preferably listed / Fortune 500):
  - It involves projects of **hundreds of millions of dollars** (sometimes even in the billions)
  - It takes a **long time** between the conception of the project, the project's formal approval and the actual implementation / completion (sometimes 10 years or more)
  - Focal organizations are often **government agencies or hybrid organizations** (government owned, but autonomous corporatized entities with commercial objectives)
  - There is a strong need for **long term strategic planning** (beyond 20 years) to stabilize the 'license to operate': however, research has shown that most organizations/companies do not plan any more beyond 5, maximum 10 years – even the oil majors have stopped developing longer term strategies, cfr. Grant, 2003)

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## Coping with outliers (2)

- There are not many projects to study/analyze, and the long lead times before project implementation (or failure) as well as specificity in terms of time, location and space (incl. local specificities of institutional arrangements) prevents learning between and across projects / focal organizations / regions / countries.
- The main success factor, as evidenced by current stakeholder management and collaboration projects (e.g. in the port of Rotterdam), as well as academic research in the subfield (Dooms, 2010), is **the capability to build stakeholder consensus around a long term infrastructure development vision** and the resulting downstream implementation of projects.



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## The existing concept shaping today's reflection (1)


- “The tools of cooperation and change” (Christensen et al., 2006 – HBR).
- Provides a framework, explaining successful change and management of an individual companies/organizations, based on two dimensions:
  - The degree to which people within the organization agree on what needs to be done
  - The degree to which people in the organization agree on which actions will yield the required results
- Successful companies are able to **align the appropriate management tools with the actual underlying characteristics of the organizations' internal situation** (i.e. the (non-)existence of consensus and the (non-)acknowledgement of certain cause and effect relations) to achieve the necessary change and ensure their superior performance

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## Christensen et al., 2006 (HBR)

The diagram is a 2x2 matrix with the following axes and quadrants:

- Y-axis:** Stakeholders agree on what they want (Broad consensus at the top, Limited consensus at the bottom).
- X-axis:** Extent to which people agree on cause and effect (Broad consensus on the right, Limited consensus on the left).
- Quadrants:**
  - Top-Left (Leadership Tools):** Charisma, Salesmanship, Role modeling.
  - Top-Right (Culture Tools):** Folklore, Rituals, Tradition, Democracy, Apprenticeship.
  - Bottom-Left (Power Tools):** Fiat, Coercion, Threats.
  - Bottom-Right (Management Tools):** Strategic planning, Transfer pricing, Measurement systems, Training, Standard operating procedures.
- Central Elements:** Vision, Negotiation, Role definition, Financial incentives, Hiring and promotion, Control systems.
- Annotations:**
  - A red arrow labeled **MISMATCH** points from the bottom-left quadrant to the top-right quadrant.
  - A red callout box in the top-right corner says: **Current tools used in the management of infrastructure development**.
  - A red callout box in the bottom-left corner says: **Current situation in the stakeholder system**.



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## The existing concept shaping today's reflection (2)

- Why is this framework useful?
  - Within the transport infrastructure development industry, in particular in industrialized countries, there is currently, in general, (1) **no consensus** between stakeholders on what needs to be done and (2) **no consensus** between stakeholders on which actions within the transport infrastructure development policy/strategy will lead to the best results.
  - This kind of situation, according to Christensen et al (2006), can best be addressed by management by a 'Balkanized' solution i.e. coercion, threats, strong control systems, dictatorship or, in government terms: '**command and control**' (cfr. the Chinese and Middle-East situations where actually large-scale infrastructure projects are still relatively easy to implement).



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## The existing concept shaping today's reflection (3)

- However, as most industrialized countries are governed by a long lasting culture of **democracy**, there exists a deep and **severe mismatch** between the actual situation in terms of strategic thinking about transport infrastructure projects/policies within the stakeholder system (bottom left) and the available management tools (essentially culture, top right) to address this situation and/or implement the necessary projects/policies for survival.
- As a result, a thorough analysis is needed on **how disruptive change in the industry and its management system can/will be created to reduce this mismatch** and to increase social and economic welfare through the transport infrastructure development and policy (or put simply: ensure survival against competing regions / countries)
- As we need to **replace 'people'** (cf. internal organization perspective) **by 'stakeholders'**, this substantially **increases the complexity** of the challenge at hand.



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## Complex strategic planning for large scale transport infrastructure hubs: an application to ports

Prof. dr. Michaël Dooms  
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## Background (1)

- Large-scale port development in the EU becomes more and more difficult:
  - Long lead times due to legal uncertainty, court procedures, long planning processes;
  - E.g. Maasvlakte 2 (Rotterdam), Deurganckdok (Antwerp), Port 2000 (Le Havre).
- Port authorities have become aware that spatial and environmental parameters have to be included in order to secure long-term port development. This, however, leads to increased complexity in strategic port planning.

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## Background (2)

- Long-term sustainable port development needs:
  - A bottom-up approach;
  - A systematic and integrative approach.
- Some literature exists on the involvement of stakeholders in the port planning process (Winkelmans and Notteboom, 2002; Dooms, Macharis, Verbeke, 2003 and 2004; Moglia and Sanguineri, 2003).
- Problem: calculate in an integrative way the effect of long-term development choices throughout the overall port system, measuring the effect on stakeholder goals.

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## Strategic Port Planning (1)

- Objectives of strategic planning:
  - Response to a complex, uncertain and highly competitive environment;
  - Seize opportunities;
  - Control risk and uncertainty.
- Multidisciplinary approach:
  - The port environment is driven by technological, economic, social, environmental and political developments.


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## Strategic Port Planning (2)

- Only limited and recent academic interest:
  - General foundations (Frankel, 1987);
  - Traditional strategic management frameworks:
    - Resource-Based View (Coeck et al., 1996);
  - Determinants of port competitiveness ('Porter Diamond') & generic port strategies (Coeck et al., 1997);
  - Adapted frameworks and tools for seaports (Haezendonck, 2001).
- Need for an integrated approach to strategic port planning.


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## Strategic Port Planning (3)

- Task/responsibility of the port authority:
  - Argument of co-ordination / organization of the planning process.
- Port authority models (Goss, 1990):
  - Generally: public sector body.
  - Model determinant: degree in which the port authority assumes a role in the diverse port activities:
    - 'Comprehensive' model;
    - 'Landlord' model.


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## Strategic Port Planning (4)

- Time horizon defines types of port planning (World Bank, 1993a):
  - Short-term planning:
    - 1 - 3 years;
    - 'operational' - 'tactical'.
  - Medium-term planning:
    - 3 - 5 years;
    - Strategic plans: 'management by objectives'.
  - Long-term planning:
    - 10 - 25 years;
    - Port master plans - Visionary approach.

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## Long-term strategic port planning (1)

- Two types of literature:
  - Focus on the types of port planning (e.g. Frankel, 1989; World Bank, 1993);
  - Focus on the "process" of strategic planning (Winkelmans and Notteboom, 2002; Pellegram, 2001; Dooms, Macharis, Verbeke, 2003, 2004);
  - Both: Moglia and Sanguineri (2003).
- Issue: definition of long-term planning:
  - Time horizon of the planning process;
  - Outputs of the planning process.

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## Long-term strategic port planning (2)

- Broader context:
  - Short-term planning (1-3 years);
  - Medium-term planning (3-5 years);
  - Long-term planning (10-25 years).
- “Master Plan”:
  - 10 year development option, with concrete port development scheme, concrete projects with milestones (= output).
  - High level of site specificity.
- Long-term strategic planning (25 years):
  - Formulation and evaluation of alternative strategies;
  - Identification of the general conditions for each strategy;
  - Absence of site specificity / concrete action plans.

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## Long-term strategic port planning (3)

Length of planning horizon

Degree of site specificity

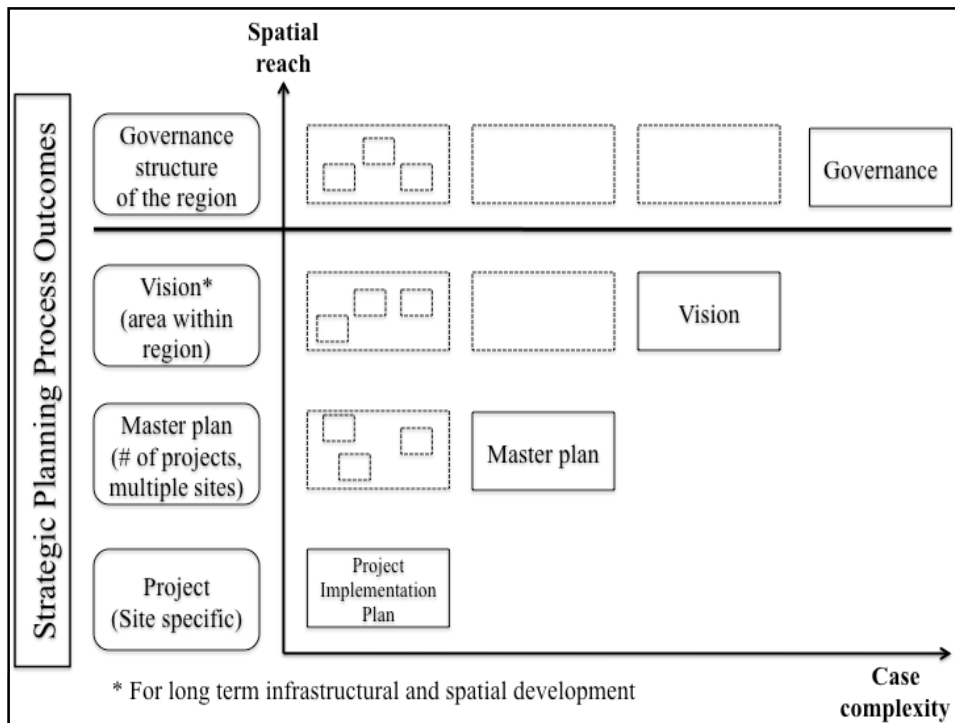
Operational or tactical planning

Short-term strategic planning

Master planning

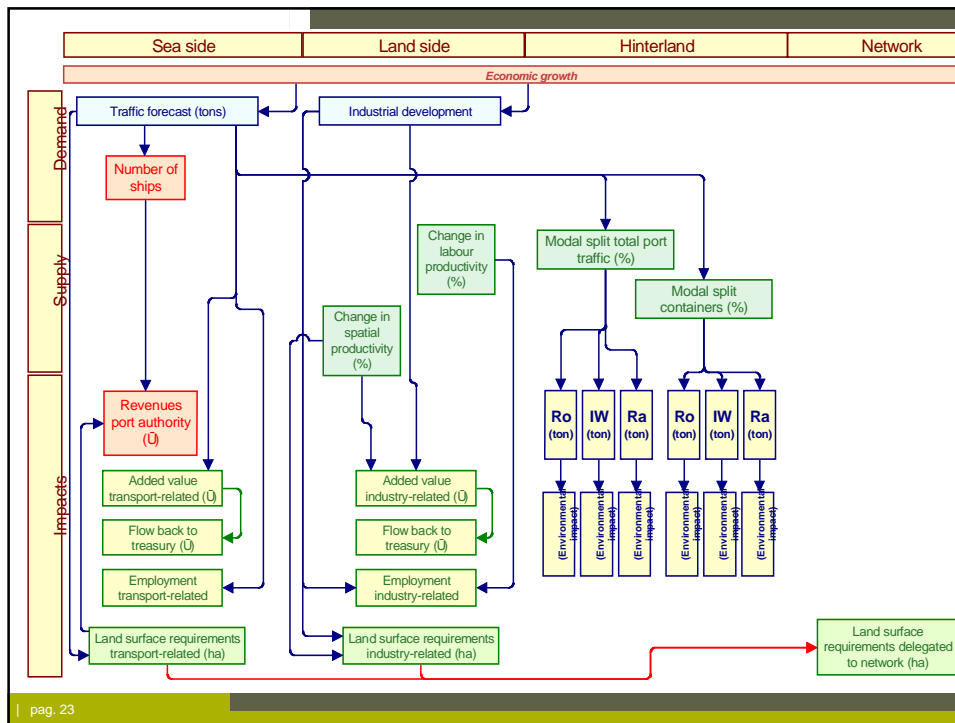
Long-term strategic planning


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	Sea leg	Land leg	Hinterland leg	Network
<b>Demand</b>	<ul style="list-style-type: none"> <li>- traffic forecasts for containers;</li> <li>- traffic forecasts for other categories (bulk, ro-ro, conventional cargo);</li> <li>- number of ships;</li> <li>- distribution of ship size.</li> </ul>	Demand for: <ul style="list-style-type: none"> <li>- quay length (metres, kilometres);</li> <li>- Terminal capacity;</li> <li>- Storage capacity;</li> <li>- Land and infrastructure for logistics, distribution and industrial activities.</li> </ul>	Demand for: <ul style="list-style-type: none"> <li>- road transport;</li> <li>- rail transport;</li> <li>- barge transport.</li> </ul>	Demand from the port to the port network (density and geographical distribution of network relations); <ul style="list-style-type: none"> <li>- Demand for intermodal terminals;</li> <li>- Demand for land for Value Added Logistics (VAL) and distribution centres.</li> </ul>
<b>Supply</b>	<ul style="list-style-type: none"> <li>- components of maritime access (capacity and size of locks, tidal windows, access channel draught)</li> </ul>	<ul style="list-style-type: none"> <li>- existing and planned quay length (metres, kilometres);</li> <li>- existing and foreseen terminal capacity;</li> <li>- existing and planned storage capacity;</li> <li>- existing and planned land and infrastructure for logistics, distribution and industrial activities.</li> </ul>	Existing and planned capacity of: <ul style="list-style-type: none"> <li>- road transport;</li> <li>- rail transport;</li> <li>- barge transport..</li> </ul>	Supply from the port network to the port (density and geographical distribution of network relations): <ul style="list-style-type: none"> <li>- existing and planned intermodal terminal capacity;</li> <li>- existing and planned supply of land for economic activities.</li> </ul>
<b>Impacts</b>	<i>Financial:</i> <ul style="list-style-type: none"> <li>- port dues;</li> <li>- tonnage dues;</li> <li>- added value.</li> </ul> <i>Social-economic:</i> <ul style="list-style-type: none"> <li>- direct and indirect employment.</li> </ul> <i>Spatial</i> <i>Mobility</i> <i>Environment</i> <ul style="list-style-type: none"> <li>- external effects of sea transport and loading/unloading ships</li> </ul>	<i>Financial:</i> <ul style="list-style-type: none"> <li>- rents for leases;</li> <li>- added value;</li> </ul> <i>Social-economic:</i> <ul style="list-style-type: none"> <li>- direct and indirect employment</li> </ul> <i>Spatial</i> <ul style="list-style-type: none"> <li>- excess/shortage of land and infrastructure</li> </ul> <i>Mobility</i> <i>Environment</i> <ul style="list-style-type: none"> <li>- external effects of port activities</li> </ul>	<i>Financial</i> <ul style="list-style-type: none"> <li>- added value.</li> </ul> <i>Social-economic:</i> <ul style="list-style-type: none"> <li>- direct and indirect employment</li> </ul> <i>Spatial</i> <i>Mobility</i> <ul style="list-style-type: none"> <li>- excess/shortage of hinterland transport mode capacity</li> </ul> <i>Environment</i> <ul style="list-style-type: none"> <li>- External effects of hinterland transport.</li> </ul>	<i>Financial</i> <ul style="list-style-type: none"> <li>- added value.</li> </ul> <i>Social-economic:</i> <ul style="list-style-type: none"> <li>- direct and indirect employment</li> </ul> <i>Spatial</i> <ul style="list-style-type: none"> <li>- excess/shortage of land for economic activities</li> </ul> <i>Mobility</i> <i>Environment</i>






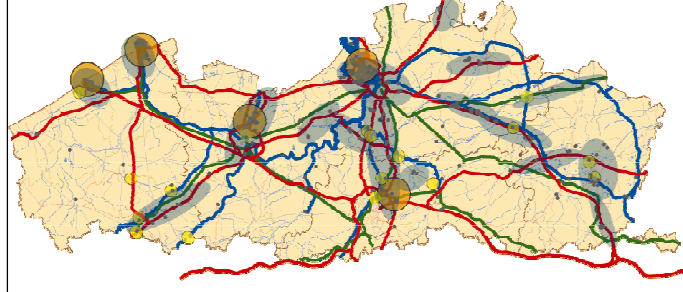


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## An Extended Gateway Approach to Longer-Term Planning


- Extended Gateway (potential)
- International Gateway
- Multimodal platforms
- European Distribution Centre
- Road
- Rail
- Water

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## The calculation model

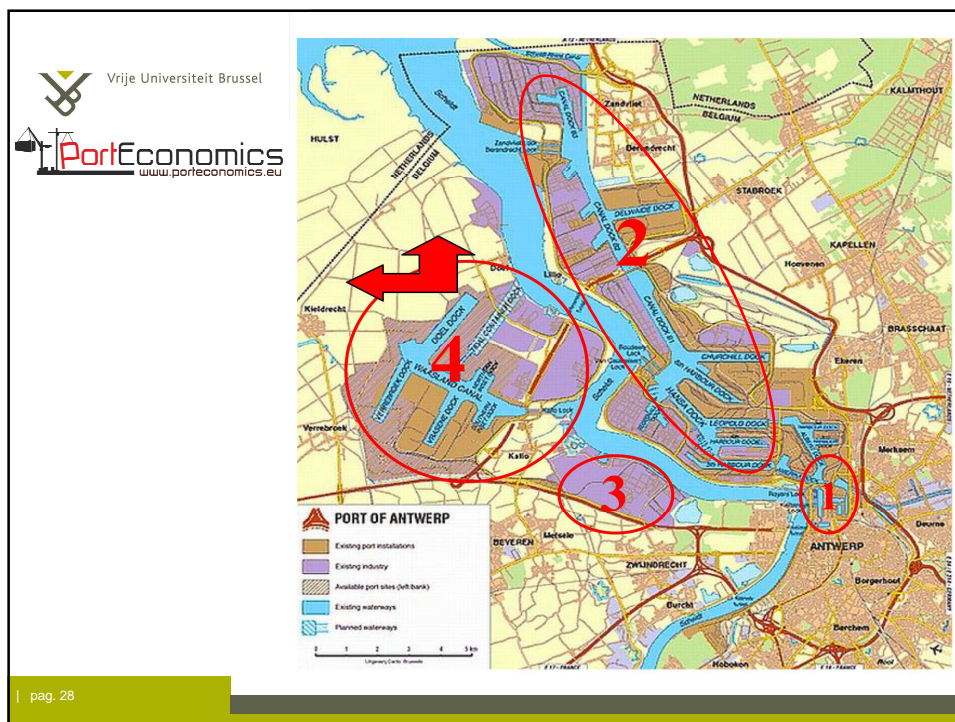
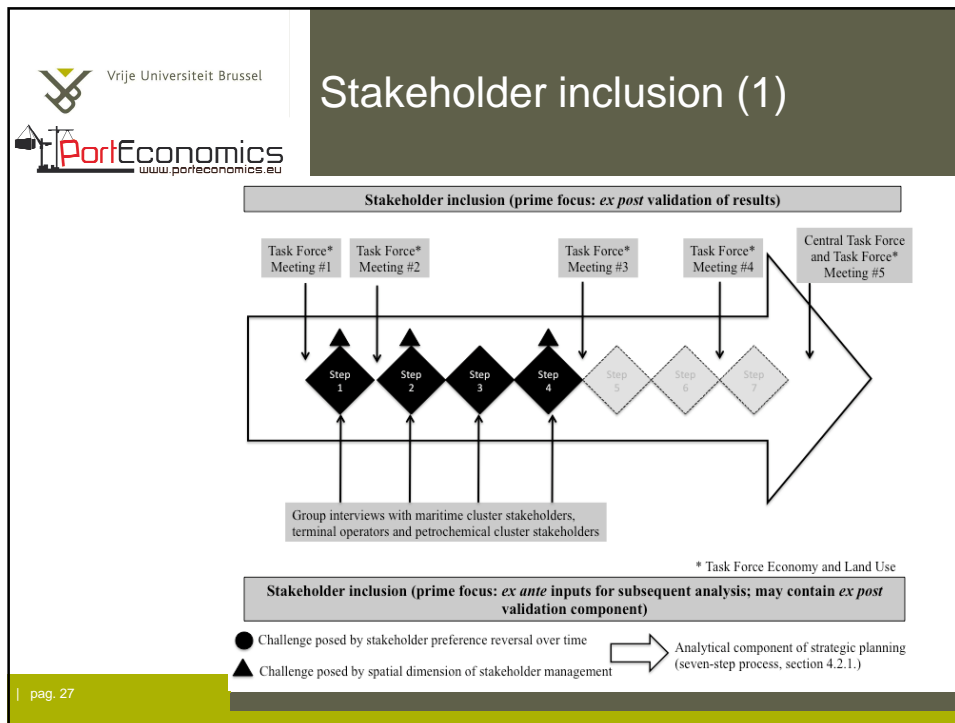
- Secondary modules:
  - Intermodal capacity in the port network, including social and economic impacts;
  - Land requirements for economic activities in the port network (Value Added Logistics, European Distribution Centres), including social and economic impacts;
  - Emissions of the principal sectors based on spatial productivity parameters.

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(Additional impacts in the extended gateway)	High growth		Low growth	
	Horizon 2015	Horizon 2030	Horizon 2015	Horizon 2030
Intermodal capacity demand (in TEU)*	884,346	1,806.816	732,771	1,381,538
Intermodal capacity demand (in net meters)	2,954	5,902	1,979	3,869
Intermodal capacity demand (in net hectares)	33.7	78.3	23.7	54.0
Employment impact intermodal terminals (FTEs)	/	517	/	395
Added Value impact intermodal terminals (million euro)	12.7	25.9	10.5	19.8
Land requirements for VAL - EDC	833	1,218	504	676
Employment impact VAL – EDC (FTEs)	44,763	65,448	27,103	36,328
Added Value impact VAL –EDC (million euro)	4,102	5,997	2,482	3,329

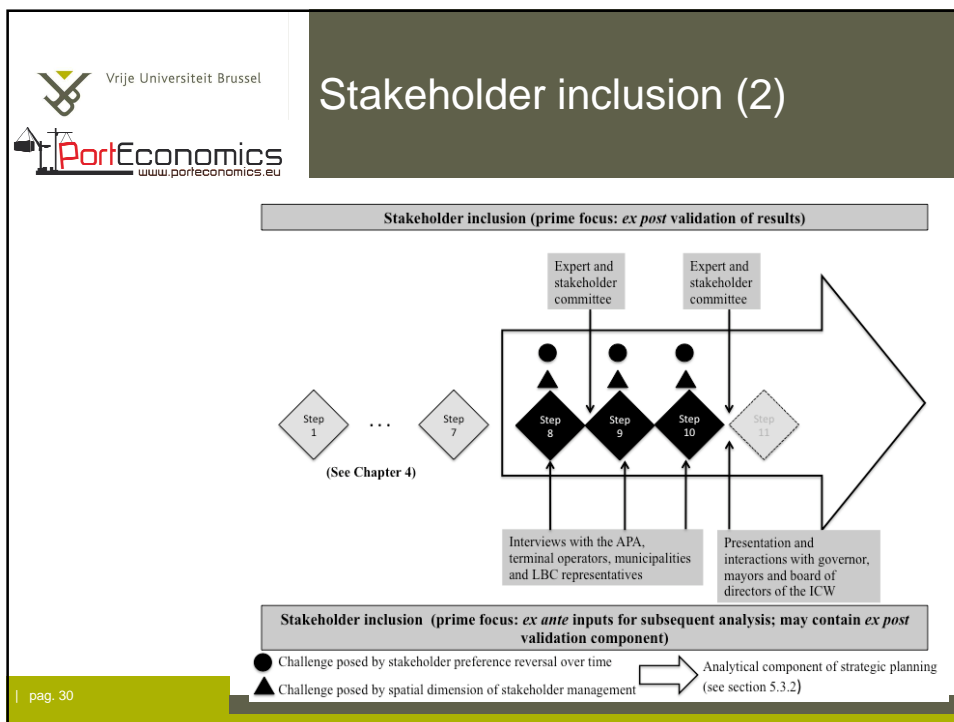
\*Including the demand from the port of Rotterdam affecting the Belgian intermodal barge network (approx. 1/3 of total demand).

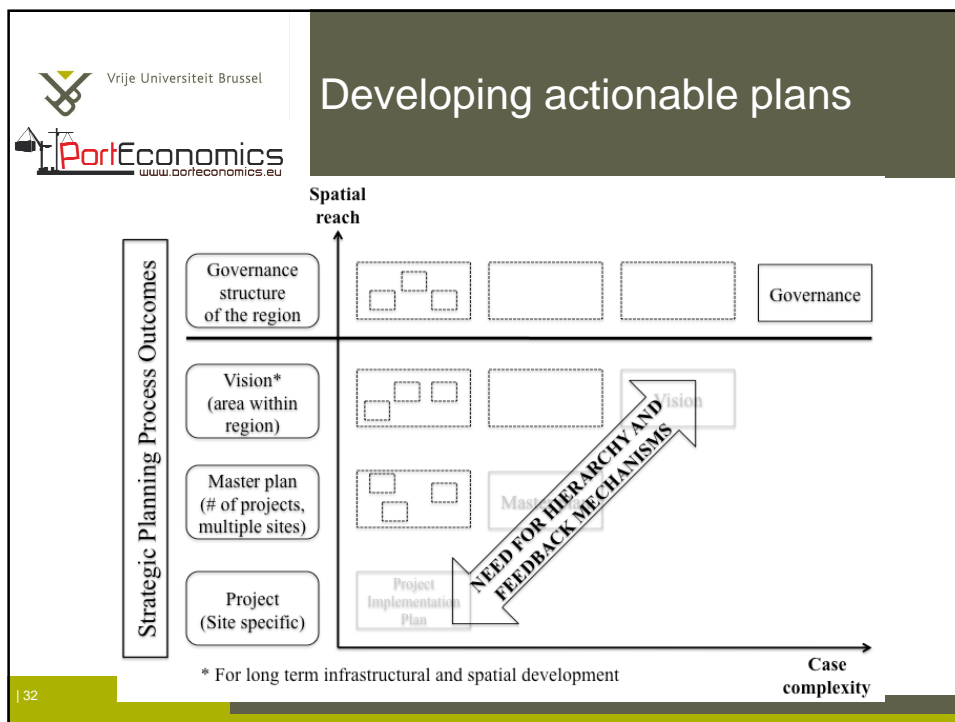
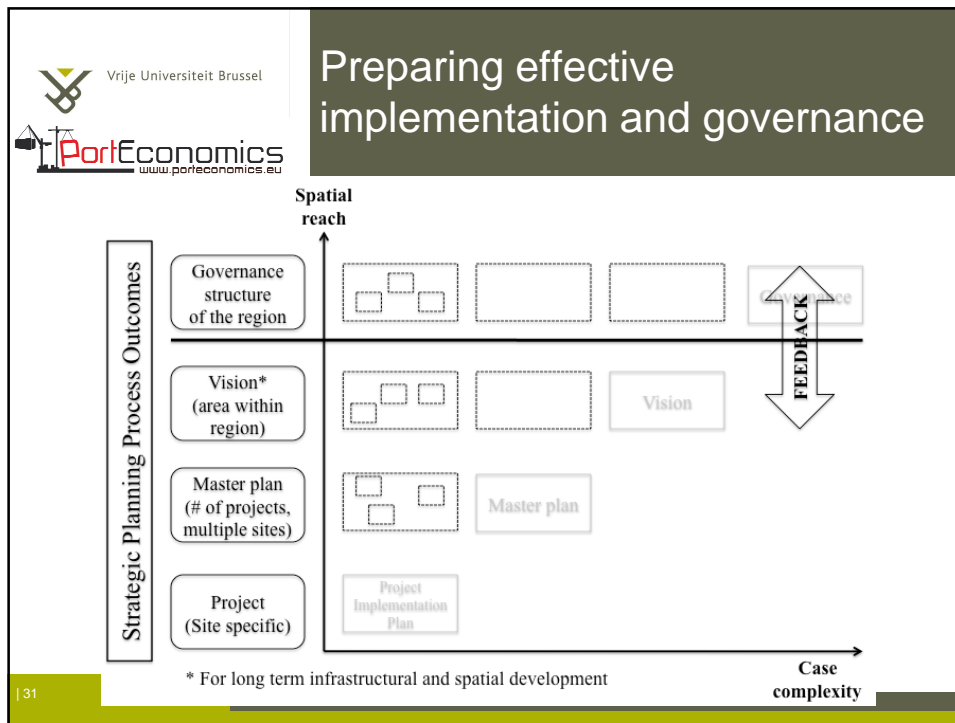
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Expected evolution of the share in terms of impact of the Left Bank compared to the current situation/current governance structure										
Expected evolution of the stakeholders attitudes resulting from the change of impacts over time, without change of governance structure										
Impact	Share of Left Bank	2004/2005**	2030***	Flemish Region	APA	Mun. Zwijndrecht	ICW	LBC	Mun. Beveren	
Traffic Growth	+++	9,50%	49,14%		+++					
Employment (T - I)*	+++	19,7% - 22,9%	45,3% - 33,9%	++	++	+	++		+++	
Added value (T - I)*	+++	22,1% - 21,9%	47% - 33%	++	++					
Port dues (containers)	+++	1%	62,80%		+++					
Concession fees	+++	18%	43%		+++			+		
Dividend flow Left Bank	N/A			+	+	+	+		+	
Municipal fiscal revenue	N/A					0			++	
Low municipal tax pressure	N/A					-			0	
Municipal public infrastructure	N/A					0			+	
Investment costs	++	Qualitative assessment		-	--	-	0	0	-	
Operating costs	+	Qualitative assessment		-	-	-	0	-	-	
Local environmental impact (Ro - Ra)**	+++	7,5% - 8,11%	49,14% - 49,14%							
Local mobility impact (Ro - Ra)**	+++	7,5% - 8,11%	49,14% - 49,14%							
Safety and Security	+++	Qualitative assessment								
Unbalanced subregional growth	N/A					-			-	
Legitimacy governance structure	N/A			0	0	--	--	0	--	
				<b>Total</b>	<b>5+/2-</b>	<b>14+/4-</b>	<b>2+/16-</b>	<b>3+/5-</b>	<b>1+/1-</b>	<b>7+/17-</b>
* = Transport related - Industry related				<b>Legend</b>						
** = Road transport - Rail transport				Very positive evolution						
*** = Values of 2004 or 2005				Positive evolution						
**** = Under the high growth scenario				Moderate positive evolution						
N/A = Not Applicable				Neutral						
APA = Antwerp Port Authority				Moderate negative evolution						
ICW = Intermunicipal Cooperation Waasland				Negative evolution						
LBC = Left Bank Company				Very negative evolution						
Mun. = Municipality										

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## Definition of stakeholders and port zones (masterplanning)

**Number of relevant stakeholder groups**

**"Homogeneity" of the port area**

One      Many

Multiple zones

One homogeneous area

Past

Present / Future


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## Planning methodology (1)

- Methodology for the planning process for a separate port zone:
  - Port area =  $\Sigma$  port zones
- Step 1: Delineation of the zones and definition of stakeholder categories;
- Step 2: Analysis of the existing situation;
- Step 3: Survey:
  - Valid sample of port companies and users;
  - Representatives of local communities.
- Step 4: Iterative SWOT;

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## Planning methodology (2)

- Step 5: Formulation of alternative strategies;
- Step 6: Definition of criteria and weights, refine stakeholder categories;
- Step 7: Profile charts;
- Step 8: Multi criteria analysis, with sensitivity;
- Step 9: Formulation of a definitive strategy;
- Step 10: Implementation:
  - Development of an implementation scheme;
  - Social Cost-Benefit Analysis for well-defined short-term projects (to be realized within 5 years).

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## Stakeholder involvement (1)

- ‘Soft’ involvement (‘ex post’):
  - Validation committees for periodical evaluation and adjustment of the different steps;
  - After step 3: presentation of the results of the survey;
  - After step 8: criteria and weights to assess formally alternative developments options and feasibility;
  - After step 9: implementation scheme (timing).

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## Stakeholder involvement (2)

- ‘Hard’ involvement (‘ex ante’):
  - Key-role of the in-depth survey;
  - Input for SWOT-analysis (collaborative approach);
  - Input for the formulation of alternative strategies (collaborative approach);
  - Involvement in the evaluation of planning alternatives or strategies (via profile charts; criteria and weights);
  - Involvement in the design of the implementation scheme.

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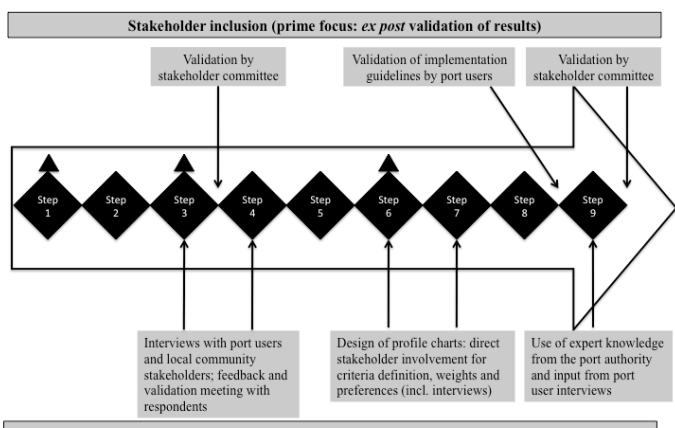
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## Stakeholder inclusion (3)

**Stakeholder inclusion (prime focus: *ex post* validation of results)**




**Stakeholder inclusion (prime focus: *ex ante* inputs for subsequent analysis; may contain *ex post* validation component)**

- Challenge posed by stakeholder preference reversal over time
- ▲ Challenge posed by spatial dimension of stakeholder management


➔ Analytical component of strategic planning (nine-step process, section 3.4.2)

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## Implications

- Enrichment of the planning process;
- Port zone approach seems appropriate to fully integrate stakeholder objectives;
- But...
  - Time-consuming activity;
  - Substantial resources of port authority;
- But...
  - Greater societal acceptance;
  - Acceleration of planning process (validation committees only have to fine-tune; less risk for disagreement or lack of procedural justice).

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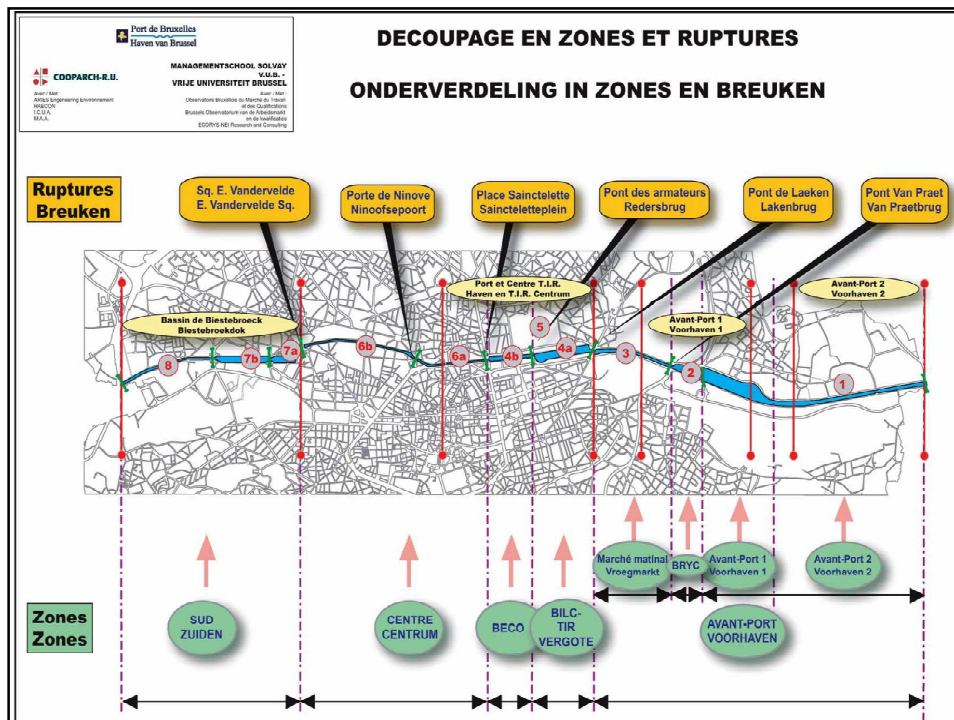


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## Empirical results summary



- Application to six port zones;
- Note: initially 11 zones, brought back to six due to overlap in SWOT-analyses of adjacent zones;

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(Stakeholder/Criterium)	(Port zones)					
	Voorhaven	Vroegmarkt	Vergote	Béco	Centrum	Zuiden
<b>Government</b>	x	x	x	x	x	x
G1. Economic Objectives	x	x	x	x	x	x
G1.1. Added Value	x	x	x	x	o	x
G1.2. Regional Employment	x	x	x	o	o	x
G1.3. Economic Diversification	o	o	o	o	x	o
G2. Spatial Integration and Multifunctionality	x	x	x	x	x	x
G3. Mobility and Transport Network Efficiency	x	x	x	x	o	x
G4. Environmental Performance	x	x	x	x	o	x
G5. Development Recreational Network	o	o	o	o	x	x
<b>Local Community</b>	x	x	x	x	x	x
<i>L1. Inhabitants</i>	x	x	x	x	x	x
L1.1. Safety Perception	x	x	x	x	x	x
L1.2. Visual/Architectural Quality	x	x	x	x	x	x
L1.3. Noise Nuisance	x	x	x	x	o	x
L1.4. Air Quality	x	x	x	o	o	x
L1.5. Odour Nuisance	o	o	x	o	o	o
L1.6. Local Congestion	x	x	x	o	o	x
L1.7. Vibrations	x	x	x	o	o	x
L1.8. Local Employment	x	x	x	x	o	x
L1.9. Local Service Offer	o	o	o	x	x	o
L1.10. Neighborhood Revalorisation	o	o	o	o	x	o
<i>L2. Non-port related businesses</i>	o	o	x	x	x	o
L2.1. Quality Of Work Environment	o	o	x	x	x	o
L2.2. Local Congestion	o	o	x	x	o	o
L2.3. Safety Perception	o	o	x	x	x	o
L2.4. Complementarity with Port Economic Activity	o	o	o	x	o	o
<i>L3. Tourists/Leisure seekers</i>	o	o	o	x	x	x
L3.1. Visual/Architectural Quality	o	o	o	x	x	x
L3.2. Accessibility/ Availability Recreation Zone	o	o	o	x	x	x
L3.2.1. Internal Accessibility / Availability	o	o	o	x	x	x
L3.2.2. External Accessibility / Availability	o	o	o	x	x	x
L4. Development Integrated Recreational Offer	o	o	o	o	o	x

<b>Port Authority</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
A1. Financial	x	o	x	x	x	x
A2. Traffic	x	x	x	o	o	x
A2.1. General Traffic Objectives	x	o	o	o	o	o
A2.2. Short-Sea Shipping Traffic Objectives	x	o	o	o	o	o
A2.3. Container Traffic Objectives	x	o	o	o	o	o
A2.4. Rail Traffic Objectives	o	x	o	o	o	o
A3. Infrastructure Optimization	x	x	x	x	o	x
A4. Spatial Productivity	o	o	o	x	o	o
A5. Local Transport Networks Integration	x	o	o	o	o	o
A5.1. Synergy Airport	x	o	o	o	o	o
A5.2. Synergy Rail	x	o	o	o	o	o
A6. Logistics Chain Position	o	x	o	o	o	x
A7. Image	o	o	x	x	x	x
A8. Zonal Homogeneity	o	o	o	x	o	o
A9. Contribution to Strategic Development Axes	x	x	x	x	x	x
A9.1. City-Port Integration	x	x	x	x	x	x
A9.2. TEN Integration	x	x	x	x	o	x
A9.3. Creation of Added Value Activities	x	x	x	x	o	x
A10. Synergy with BILC	o	o	x	o	o	o
A11. Synergy with Neighboring Activities / Projects	o	x	x	o	x	o
A12. Maintain Accessibility Zone South	o	o	o	o	x	o
<b>Port User</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>o</b>	<b>x</b>
U1. Profitability	x	x	x	x	o	x
U2. Multimodal Accessibility	x	x	x	x	o	x
U3. Synergy Effects	x	x	x	x	o	x
U4. Geographic Position Hinterland / Clients	x	x	x	x	o	x
U5. Institutional Factors	x	x	x	x	o	x
U6. Employment Market Compatibility	x	x	x	x	o	x
U7. Concession Contract Flexibility	o	o	o	x	o	o
U8. Extension Possibilities	o	o	o	x	o	o
	x	Stakeholder/Criterion/Objective present				
	o	Stakeholder/Criterion/Objective absent				
	TEN	Trans-European Networks				
	BILC	Brussels International Logistics Center				

## Empirical results summary

### (3)

- Criteria of the port authority are stable:
  - Overall strategic intent;
  - Unbundling of general criteria in 'active' zones;
  - Other criteria in 'passive' zones.
- Criteria of the port users are stable:
  - Profit-driven firms;
  - Omitted in 'passive' zones.
- Criteria of the local community vary a lot:
  - Less univocal throughout the port area;
  - Decomposition in sub-categories;
- Criteria of government are stable:
  - Economic and environmental criteria;
  - Sometimes specific criteria are introduced.

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## Inclusive stakeholder management implies...

- **Mapping stakeholders** and their interests upfront
- Designing **processes to collaborate**, capturing their interests, ideas and issues in formulating, evaluating and implementing the redevelopment scenario(s)
- Taking into account **dynamic and spatial aspects**
- **Transparent and open communication** throughout the entire process

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## Inclusive stakeholder management also...

- ... takes **time**
- ... costs **money**
- ... requires **adapting** 'ideal' scenarios to stakeholder concerns

**BUT**

- ... **reduces risk** of non-implementation
- ... **avoids** time-consuming and costly **litigation**
- ... **improves** long-term **stakeholder relationships**
- ... **strengthens** the **license to operate**

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## Relevance for management


- Assume the role as **project developer**
- **Acquire stakeholder management capabilities** in the organizations
- **Avoid** communicating a (perceived) or even real preconceived idea about **one specific project development / scenario**
  - Open reflection at the outset is needed with stakeholders, in some cases even evaluating scenario's that we do not want!
  - Balance offer (characteristics of the infrastructure) with economic demand (market for potential economic development)
- Broadly **assess all relevant impacts**, within a clearly predefined, stakeholder-proof structure

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## Additional reading



Michael Dooms

CRAFTING THE INTEGRATIVE  
VALUE PROPOSITION FOR  
LARGE SCALE TRANSPORT  
INFRASTRUCTURE HUBS:  
A STAKEHOLDER MANAGEMENT APPROACH

VUB PRESS

# Thank you!

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# Séminaire EMAR-IFSTTAR

Avec le soutien de la fondation Sefacil

## La planification stratégique des infrastructures portuaires

Michaël Dooms

**Résumé court de la présentation :** Dans le processus de planification stratégique des ports, la coordination entre les intérêts et les capacités des différents intervenants publics et privés constitue un enjeu majeur. Une inadéquation entre les parties en présence représente encore souvent un frein à la réalisation de grands projets d'infrastructure. Dans sa présentation, Michaël Dooms défend cette thèse en s'appuyant sur les résultats de plusieurs études de cas. Il discute en particulier la manière dont les gestionnaires de grandes infrastructures nodales, comme les autorités portuaires, intègrent les objectifs des différents intervenants, au sein des processus de planification stratégique sur le long terme. Sa présentation apporte un éclairage sur la gestion des intervenants et des mécanismes de planification, dans des cadres géographique et temporel élargis. Il propose des pistes afin de faciliter l'intégration formelle des différents partenaires au processus de planification stratégique. Par ailleurs, à la lumière des différentes études de cas, il met en évidence les impacts potentiels des structures de gouvernance portuaire et territoriale sur la construction de la planification.

**Ont participé à l'organisation de ce séminaire :** Romuald Lacoste, Nicole Verdière, Nathan Bounie, David Guerrero.

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