



# PORT-CITY GOVERNANCE

Sous la direction de Yann Alix, Bruno Delsalle et Claude Comtois



17 rue des Métiers, 14123 Cormelles-le-Royal



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# Préface

*Jean Pierre Lecomte*

*Président*  
AIVP

L'AIVP, le réseau mondial des villes portuaires, anime depuis un quart de siècle un débat universel pour que la ville et le port améliorent sans cesse leurs relations. Les défis d'aujourd'hui n'ont pas les mêmes magnitudes que ceux de nos débuts. Changement climatique, montée irréversible du niveau des masses océaniques ou encore aspirations grandissantes de la société civile doivent conduire à l'union des forces urbaines et portuaires. La co-construction de consensus aboutit aux partages de solutions entérinées par toutes les forces vives du territoire de la ville et du port. Échelles de temps, échelles d'espace et échelles d'intérêts se conjuguent pour que l'audace, l'innovation et la liberté s'imposent dans les solutions de demain.

C'est dans ce contexte que l'AIVP a apporté toute son expérience internationale à la Fondation Sefacil pour produire un ouvrage collectif sur les modalités modernes de la gouvernance ville-port. Les nombreux retours d'expériences internationaux résonnent en échos de savoirs académiques et de savoir-faire appliqués. Du Chili au Japon, de l'Europe de l'Ouest à l'Afrique Centrale, de l'Amérique du Nord aux Caraïbes, les contributions démontrent que les « recettes » de l'expérience vécue doivent nécessairement se modeler dans les spécificités locales et régionales. Une ville portuaire est par essence unique ; produit d'une géographie, d'une histoire et d'un mode de vie qui lui appartient. Aussi, la gestion future des relations ville-port nécessite autant de raffiner le passé que de projeter l'avenir tout en conservant la réussite de la relation avec le territoire au présent.

L'ouvrage ouvre les horizons. Prospective, vision et stratégie esquisSENT les contours de gouvernances en phase avec ces nouvelles perspectives ville-port. Gouverner une ville portuaire exige de prendre en compte les visions du plus grand nombre en conciliant l'instantanéité des réseaux sociaux et le temps long des grandes réalisations infrastructurelles. La Smart Port City de demain doit s'incarner dans les modalités de sa gouvernance.

Puisse cet ouvrage de la collection Les Océanides apporter créativité et originalité pour que les villes portuaires mondiales continuent d'être de formidables laboratoires des possibles.

# Chapitre Editorial

*Yann Alix*

*Délégué Général*  
Fondation SEFACIL  
Le Havre - France

## Biographie

*Depuis novembre 2010, Yann Alix occupe le poste de Délégué Général de la Fondation SEFACIL, laboratoire d'idées prospectives sur les stratégies maritime, portuaire et logistique. Il a initié et dirige la collection Les Océanides de la fondation SEFACIL. Les corridors de transport (2012) et La logistique et le transport des vracs (2013) sont disponibles gratuitement sur [www.sefacil.com](http://www.sefacil.com).*

*Yann Alix enseigne dans plusieurs universités et écoles de commerce en France et à l'étranger. Titulaire d'un PhD de Concordia University (1999) et d'un doctorat en géographie des transports de l'université de Caen en France, Yann Alix développe des analyses opérationnelles sur les stratégies managériales des opérateurs maritimes et portuaires internationaux. Il conseille plusieurs directions générales d'autorités portuaires subsahariennes.*

# Les Océanides

Cet ouvrage collectif sur **Gouvernance Ville-Port** s'inscrit dans la continuité scientifique des expériences du tome 1 sur **Les corridors de transport** et du tome 2 sur **Logistique et transport des vracs**. Lancée en 2012, la collection *Les Océanides* de la fondation SEFACIL explore des thématiques en phase avec les problématiques modernes rencontrées dans les secteurs portuaires, maritimes et logistiques. *Les Océanides* produit des contenus originaux qui apportent un éclairage multidisciplinaire et vise à intéresser une très large audience internationale. Les cibles demeurent un monde académique en quête d'expériences de terrain et des praticiens avides de références issues de la recherche fondamentale et appliquée. La collection *Les Océanides* établit une passerelle entre le monde académique/universitaire et les sphères opérationnelle/professionnelle avec une construction méthodologique qui obéit à un double paradigme :

- promouvoir la culture d'une recherche appliquée en langue française; et,
- assurer une diffusion mondiale des productions par la gratuité des supports papier et électronique.

De par sa dimension universelle, la gouvernance des relations ville-port nous a conduits à ouvrir les horizons linguistiques. Sans rogner sur les fondamentaux francophiles de la Fondation, les contributions ont laissé la place à des grands témoins hispanophones et anglo-saxons pour saisir en version originale toutes les subtilités que recouvrent les relations entre un port et sa ville. Les contributions s'articulent selon un effet miroir original puisqu'à la lecture de chapitres de production scientifique/académique/théorique répondent des capsules restituant des pratiques/opérations/retours d'expériences de la part des professionnels, mais aussi d'universitaires ou de gestionnaires qui ont pu éprouver des réalités de terrain lors de leurs expérimentations. Pour ce troisième opus, une dernière partie assume la dimension prospective promue par la Fondation avec des idées ouvertes, pour ne pas dire visionnaires, sur les contours d'une gouvernance en phase avec les défis de la relation ville-port du XXI<sup>e</sup> siècle.

Sur le plan de la méthode, la fondation SEFACIL innove par un *modus operandi* original. Une invitation à produire est adressée directement aux auteurs académiques et aux professionnels praticiens. Une description courte du périmètre, des méthodes et objectifs est adressée au contributeur qui fait une contre proposition. Le tout se trouve entériné par des « allers-retours » entre les contributeurs et un trinôme composé du directeur de la collection et de deux experts internationaux reconnus pour leur savoir dans la thématique centrale de l'ouvrage. Ce mode collaboratif et dynamique garantit une cohérence scientifique et pédagogique.

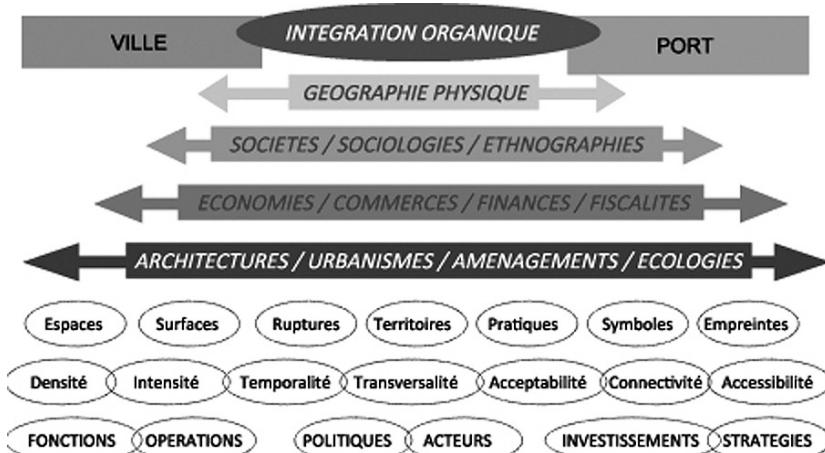
La collection d'ouvrages SEFACIL paraît une fois par an sous forme papier (1 000 exemplaires) et en format électronique téléchargeable sur le site de la Fondation SEFACIL. Plus de 600 ouvrages sont diffusés gracieusement sur les

5 continents auprès des autorités portuaires, les ministères de tutelle, les universités, les écoles de commerce et les centres/laboratoires de recherche ainsi que les chercheurs experts du domaine couvert par la production. Ainsi se construit le réseau mondial de compétences, de connaissances et de diffusion de la fondation SEFACIL sans aucune restriction technique ou financière.

## *Gouvernance ville-port*

Les villes portuaires polarisent et structurent la mondialisation. Depuis 3000 ans, elles cristallisent les adaptations et innovations qui visent à rendre toujours plus attractifs et efficaces ces nœuds incontournables de l'échange international. Formidables laboratoires de consensus, les interfaces entre la ville et le port symbolisent un équilibre subtil entre concertation, conciliation, confrontation et finalement co-production dans le but de faciliter le passage des biens et des personnes. A l'instar de la figure ci-après, les mots ne manquent pas pour tenter de caractériser l'intégration physique et organique de la ville et de son port, du port et de sa ville. Par essence pluridisciplinaire, la gouvernance ville-port mue au gré des contraintes, des opportunités et des synergies communautaires.

**Figure 1 : Intégration organique ou les difficultés d'une appréhension systémique de la relation ville-port**



Source : Yann Alix & Brigitte Daudet, 2011

Aujourd'hui, à l'égal des opérateurs économiques, des gestionnaires ou des aménageurs, les citoyens revendiquent leurs expressions et représentations jusque dans les organes de gouvernance. Transition écologique et enjeux environnementaux, économie circulaire et verte, éducation et expression culturelle sont autant de nouvelles dimensions transversales qui animent une gouvernance nécessairement plus ouverte, dynamique et adaptative des relations entre ville et port.

Ces nouvelles aspirations sociétales éprouvent les modalités connues de la gouvernance, tant pour les autorités portuaires que pour les représentants des villes et des agglomérations portuaires. Elles exigent de la créativité, de l'innovation, de l'audace et du courage pour dégager de nouvelles légitimités absolues.

La gouvernance ville-port implique aujourd'hui de toujours plus imbriquer les échelles. Qu'elles soient spatiale, temporelle, fonctionnelle, virtuelle ou encore électorale, culturelle, symbolique ou historique, les échelles et leurs interactions complexifient les délimitations, les périmètres et les prérogatives. Tout à chacun peut aisément revendiquer son angle de lecture et son échelle de référence. Les contours optimaux d'une gouvernance efficiente se manifestent dans sa qualité « universelle » à satisfaire les *desirata* du plus grand nombre de parties prenantes.

Or, chaque ville, chaque port et *a fortiori* chaque ville portuaire présentent autant de similarités universelles que de singularités particulières ! Toucher à une forme d'universalité consensuelle s'avère utopique vue la pluralité quasi infinie des combinaisons de facteurs rencontrées dans chaque couple ville-port.

Les villes portuaires, lieux mystiques et de mystères, n'ont plus le choix que de révolutionner leur rapport aux autres. Avec le vent nouveau des réseaux sociaux, le port et la ville se conjuguent en dynamiques positives pour convaincre autant un client, un investisseur, un citoyen ou un contestataire. Les convaincre en toute transparence qu'une gouvernance par le plus grand nombre exige de nouveaux cadres, mécanismes et réflexes. Gouverner une chaîne de valeur logistique est-il possible ? Gouverner un espace métropolitain sans frontières est-il faisable, ou même souhaitable ?

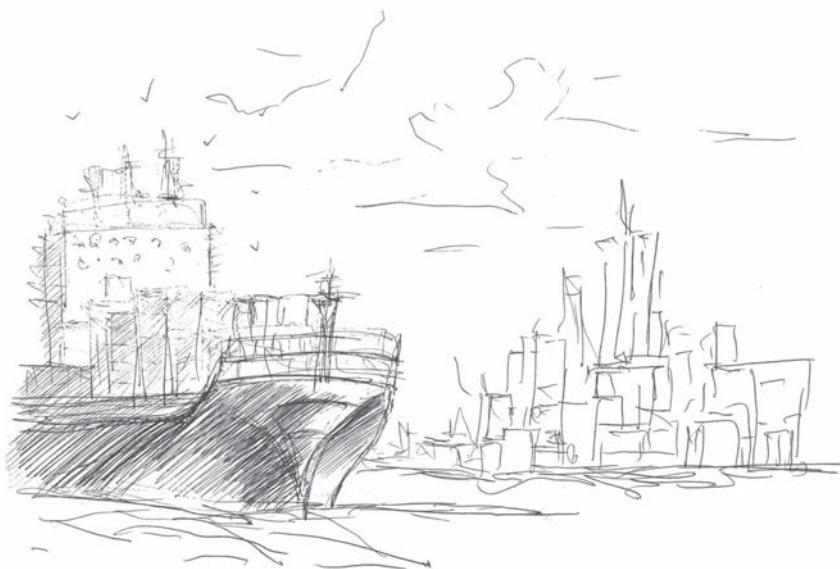
Une gouvernance représentative et unanime doit prouver son efficacité objective afin de légitimer des actions, des positions, des choix et des arbitrages. La ville portuaire et ses organes de gouvernance s'imposent comme des laboratoires sous haute surveillance avec, par exemple, le dérèglement climatique et la montée irréversible des niveaux océaniques. Aucune ville portuaire ne peut s'y soustraire à terme. Dans la chronique moderne d'une catastrophe annoncée, encore trop peu de synergies ville-port se constatent, particulièrement dans la capacité à « co-gouverner » des réponses holistiques et collaboratives.

Ce troisième tome de la collection *Les Océanides* de la Fondation Sefacil propose de réfléchir sur les nouveaux contours de la gouvernance ville-port. L'AIVP, le réseau mondial des villes portuaires est le partenaire de cette réflexion qui sera accompagnée sur le plan scientifique par l'apport de Claude Comtois, Professeur de géographie de l'Université de Montréal.

## *Structure de l'ouvrage*

Cette troisième édition de la collection *Les Océanides* implique vingt-sept grands témoins internationaux dans une vision pluridisciplinaire et globale de la gouvernance ville-port. L'ouvrage s'ouvre avec cinq chapitres d'obédience académique auxquels répondent huit capsules qui confrontent des retours d'expériences internationales. La troisième partie inclut quatre capsules prospectives sur les contours de gouvernances renouvelées. Le présent chapitre éditorial sert d'introduction générale alors qu'un grand témoin international propose le chapitre de conclusion. Trois personnalités « postfacent » l'ouvrage de leur témoignage.

### **Les chapitres de la première partie**



Dessin : Phetxomsouk Manivong

**Jeanne-Hélène Jugie** inaugure cette première partie avec un chapitre qui pose les fondements de la connaissance scientifique et universitaire sur la gouvernance ville-port. Un substrat historique permet de comprendre combien la relation ville-port ne cesse d'évoluer dans le temps et dans l'espace. La gouvernance n'en devient que plus complexe avec des revendications et des expressions qui imposent de renouveler les cadres de pensées et d'action de la gouvernance. Intégration territoriale du port et multiplication des acteurs exigent de l'innovation pour que le couple ville-port continue de créer de la valeur ajoutée, de l'attractivité et du bien-vivre. Jeanne-Hélène Jugie mobilise ses compétences de géographe et d'urbaniste-aménageur pour démontrer combien la planification des développements mé-



tropolitains et celle des ambitions portuaires sont indissociables. La notion de gouvernance collaborative est entamée par la chercheure associée du CIRRELT dans une logique de pérennité et de soutenabilité de la relation ville-port.

**Claude Comtois** complète l'approche urbaine du chapitre précédente avec un développement sur les structures de la gouvernance. Le rôle des institutions ainsi que les mécanismes et les processus mobilisés dans la construction de la relation ville-port sont discutés dans l'optique d'une « bonne gouvernance ». L'auteur insiste sur le caractère dynamique de la gouvernance, dans un exercice d'optimisation continue de la part de toutes les parties prenantes. Dans une approche systémique, Claude Comtois met en exergue la complexité des échelles de lecture afin de saisir les enjeux d'une gouvernance en phase avec les forces du marché. Un décalage grandissant est même relevé entre les politiques publiques et les stratégies corporatives du transport maritime. Il en résulte l'impérieuse nécessité d'innover dans les dessins institutionnel et opérationnel de la gouvernance afin de faire fructifier les atouts indiscutables des villes portuaires face à la mondialisation des marchés.

**Michaël Dooms** aborde la gouvernance ville-port en insistant sur l'irrésistible montée en puissances des revendications sociétales et environnementales dans la gestion complexe des relations entre les parties prenantes. Une autorité portuaire doit faire preuve d'innovation pour intégrer dans son développement l'expression d'acteurs et de citoyens au pouvoir d'expression toujours plus légitime. Le chercheur belge analyse la méthodologie qui permet d'attester la prise en compte de ces dimensions qualitatives. Des indicateurs portuaires sont discutés à travers plusieurs exemples internationaux. L'évaluation de la performance portuaire s'en trouve ainsi modifiée dans une ambition stratégique de disposer d'un consensus global autour des futurs développements portuaires. Les travaux du professeur Dooms posent la question de la capacité objective et scientifique de mesurer les trois P (*People, Profit, Planet*) dans un contexte où les autorités portuaires cherchent de plus en plus à disposer d'une « License to Operate ». Une matrice mise au point par le chercheur est présentée et discutée pour aboutir sur des questionnements méthodologiques mais aussi stratégiques et managériaux sur l'évolution à venir des relations entre parties prenantes dans l'univers ville-port.

Après avoir rappelé les fondamentaux historiques et fonctionnels de la relation ville-port, **Franc J. Pigna** concentre son analyse sur les enjeux économiques et financiers liés aux nouveaux développements du port dans la ville. La valorisation foncière est au cœur de la démonstration avec les impératifs de rentabilité et de création de valeurs sur ces terrains aussi prisés que stratégiques. L'impact économique réel et la capacité des autorités portuaires à produire des dividendes sont au cœur du challenge



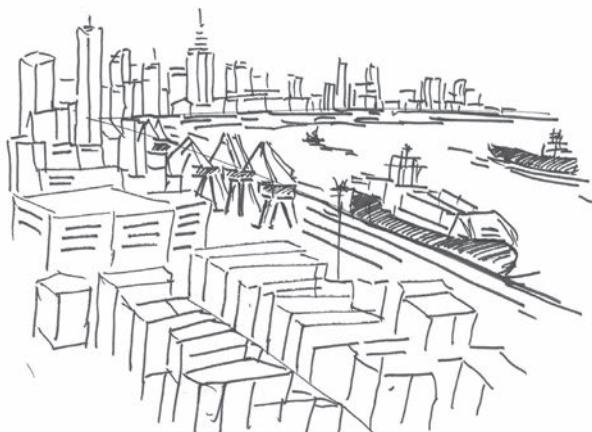
portuaire. L'auteur met en avant le concept de « corporatisation » des autorités portuaires afin qu'elles puissent générer d'avantages de produits économiques, d'autant plus que les prélèvements financiers effectués par les collectivités et des états peuvent s'avérer conséquents. Le spécialiste américain conclut que l'utilisation optimale des espaces est la clé de la compétitivité logistique de la ville portuaire, et que cette compétitivité est cruciale pour les économies nationales. Il propose un nouveau modèle économique impulsé par le port via une véritable union stratégique avec la ville, quitte à changer les fondements régaliens du *landport* pour se diriger vers une autorité portuaire plus commerciale et financière.

**Yann Alix et Brigitte Daudet** concluent cette première partie avec un chapitre



prospectif sur les contours sublimés d'une gouvernance participative en format PPP. Dans un premier temps, les deux auteurs reprennent les enjeux multi scalaires de la gouvernance de territoires métropolitains diffusés sur des corridors logistico-portuaires aux frontières sans limites. Aux EME (*Espaces Métropolitains Elargis*) et aux CLP (*Corridors Logistico-Portuaires*) répondent les expressions et revendications des ACC (*Acteurs Citoyens Consommateurs*). Dans un environnement sociétal en perpétuelle redéfinition, la gouvernance paraît être le défi d'une représentativité optimale et juste de toutes les parties prenantes. Interactif et systémique, le principe même de gouvernance doit symboliser autant l'universalité d'une représentation qu'une agora sans souffrance de légitimité. Fruit de plusieurs réflexions académiques et opérationnelles, cette contribution pose les fondements d'une gouvernance en partenariat public-privé avec l'inclusion pleine et entière des sphères privée et citoyenne. Les travaux en cours de Yann Alix et Brigitte Daudet visent à esquisser un modèle consensuel de gouvernance ville-port en phase avec l'évolution des pratiques, des revendications et des contestations de notre société dans un univers marchand ouvert et compétitif.

## Retours d'expériences internationales de la gouvernance ville-port



Dessin : Phetxomsouk Manivong

**Isabelle M.J. Vries** met en perspective les avancées managériales et stratégiques insufflées depuis quelques années au sein de l'espace portuaire de Rotterdam. La transformation d'un ancien chantier naval en un creuset de la recherche et de l'innovation maritimes est analysée par le prisme d'une gouvernance collaborative originale. La spécialiste néerlandaise rappelle combien cette initiative sort l'autorité portuaire de Rotterdam de ses prérogatives régaliennes. L'auteure décrypte les mécanismes qui conduisent à créer de la gouvernance participative sur des territoires fonciers en complète mutation. À travers la description fine des phases successives du projet, Isabelle M.J. Vries démontre comment une autorité portuaire est devenue moteur d'une gouvernance avant-gardiste au sein de l'espace métropolitain Rotterdamois.



**Ajiv Maharaj & Andrew A. Matters** s'attardent sur le cas de la ville portuaire de Durban en Afrique du sud où l'on constate une concentration anormale de pauvreté métropolitaine en comparaison des autres grandes villes du pays. Employabilité, politique sociale, collecte des taxes municipales et solvabilité économique de la ville s'appréhendent dans un environnement où plus de 100 000 personnes relèvent directement et indirectement de l'activité portuaire. Après quelques éléments historiques, les deux spécialistes sud-africains rappellent combien les liens économiques et sociaux unissent la ville et le port, poussant les institutions urbaines et portuaires à créer dès 2006 le TEMPI pour faire face aux enjeux sociétaux et logistiques. La ville et le port (*via Transnet*) unissent leur force pour une gouvernance concertée des principaux maux constatés dans la plus importante ville por-



tuaire du pays. TEMPI Process a permis de poser les bases d'une planification stratégique à long terme.

**José Llorca Ortega** pose d'emblée la définition de la gouvernance ville-port en Espagne. Les villes portuaires espagnoles de tailles relativement moyennes, ont été confrontées à une spectaculaire accélération de leurs croissances urbaines et portuaires au cours des 20 dernières années. Le Président de Puertos do Estado fait le constat des nombreuses tensions résultant de ces croissances conjuguées. Transformations physiques, logistiques et environnementales ont été accompagnées par des adaptations constitutionnelles dans le but de disposer de gouvernances adaptées autant aux défis de croissance qu'aux conséquences de la crise économique nationale qui impactent en particulier les capacités d'investissements. Les ports espagnols disposent de compétences attestées par la loi afin d'orchestrer leurs destinées en relation avec les parties prenantes. José Llorca Ortega conclue sur l'importance de la dimension environnementale du développement que doivent assumer les autorités portuaires espagnoles et l'auteur conclut sur la légitimité des autorités portuaires à se placer en leader de coordinations planifiées.



**Satoshi Inoue**, ancien Secrétaire général de l'*International Association of Port & Harbors* (IAPH), explique que le symbole japonais d'un port conjugue une vague et une ville. En soi, l'urbanité portuaire japonaise se distingue de toutes les autres par les contextes orographiques, physiques, démographiques et économiques d'un archipel de 3 000 îles ! Les ports japonais sont gérés par des autorités locales (*Port Management Body*)... en priorité pour la prospérité locale. Les PMB ont, dès les années 1970, développé des planifications stratégiques prenant autant en compte les développements économiques que les préoccupations sociétales et environnementales des populations concernées par les activités portuaires. Autre originalité analysée par Dr. Inoue Satoshi, la capacité des villes portuaires à mobiliser des remblais gigantesques comme dans le cas d'Osaka où un nouveau quartier de 26 000 habitants a pu voir le jour à proximité des développements portuaires et logistiques sur l'île artificielle de Sakishima. Sous l'égide et la régulation des PMB, la revitalisation urbaine des anciennes installations portuaires de centre-ville se réalise en « coexistence d'intérêts ». Enfin, l'auteur japonais conclue sur l'évolution récente des structures de gouvernance sous l'impulsion d'une conteneurisation exigeant de l'espace foncier et des moyens financiers d'investissements.



**Yann Alix et Rigobert Ikambouayat Deka** couvrent la problématique des relations ville-port dans l'espace économique et logistique de l'Afrique de l'Ouest et du Centre. Les défis sont à la hauteur des héritages historiques et des croissances économiques récentes. Les au-

teurs reviennent sur les planifications physique, politique et organisationnelle des principales villes portuaires de la rangée Dakar-Luanda. Le décloisonnement total de la gestion de la ville et du port impose l'avènement d'organisations en phase avec les projets de développement. Métropolisation irréversible et inauguration de nouveaux terminaux portuaires constituent pour les auteurs de formidables terrains d'innovations stratégiques et managériales. Afin que les dividendes d'une planification concertée ne soient pas annihilés par les externalités négatives, Yann Alix et Rigobert Ikambouayat Deka font des propositions en prenant le cas du super projet du Port Môle à Libreville en République Gabonaise.



Au niveau de l'espace Caraïbe, la problématique de la gestion ville-port se focalise sur la délicate cohabitation entre les géants de la croisière, les autorités portuaires, les populations et les représentants publics. **Ibrahim Ajagunna** et **Fritz Pinnock** posent le problème des échelles de pouvoir et de décisions dans la durabilité d'une gestion rarement concertée. Les auteurs rappellent que les systèmes insulaires de l'espace Caraïbe constituent des microcosmes où se recomposent les relations ville-port selon la taille des nouveaux navires, le changement des rotations, les prérogatives des opérateurs touristiques majoritairement américains, et finalement la gestion des revenus entre toutes les parties prenantes de la chaîne de valeur de la croisière. Selon les auteurs, les retombées économiques et sociales des activités de croisière internationale peuvent même être inversement proportionnelles à la taille croissante des navires. Alors que la plupart des systèmes insulaires caribéens propose sensiblement les mêmes prestations, la question des retombées directes et indirectes reste posée. Cela s'avère d'autant plus problématique que l'équilibre entre les risques d'investissements des autorités insulaires apparaît souvent disproportionné au regard de l'évolution des externalités positives sur les populations locales... et des externalités négatives sur l'environnement.



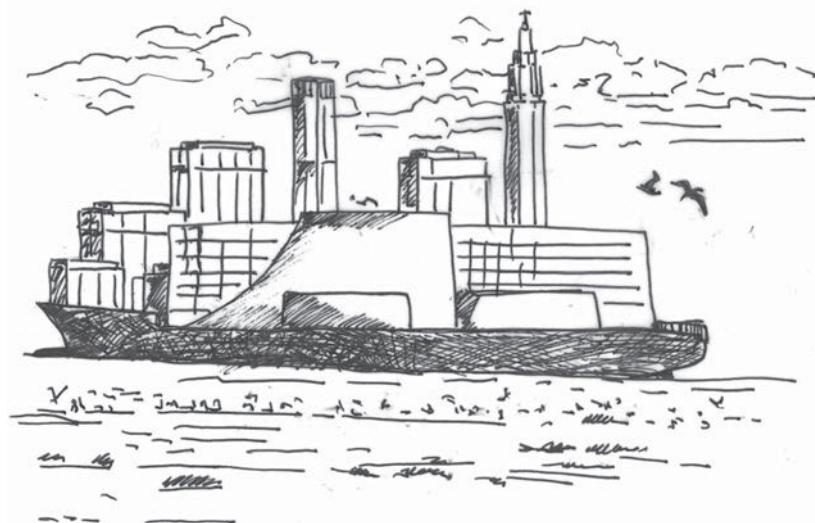
**Harald Jaeger** aborde le cas de Valparaiso au Chili, véritable icône de la relation ville-port. Le directeur général du port chilien place la notion de valeur au cœur de sa démonstration, rappelant d'emblée le rôle éminemment important de l'activité portuaire dans la création de la valeur économique nationale au Chili. Valparaiso a comme obligation de garantir les conditions infrastructurelles indispensables à sa croissance tout en développant un processus de cohabitation encore plus harmonieux avec la ville. La construction d'un projet commun pour augmenter les bénéfices mutuels tout en se garantissant d'une redistribution optimale des dividendes sur la population constitue la base d'une croissance pérenne de Valparaiso. L'auteur dissèque les mécanismes qui permettent aujourd'hui au port de travailler en quasi symbiose avec « sa » ville. Une forme d'engagement en co-responsabilité a été instaurée en impliquant fortement la société civile. Le cas chilien constitue un

laboratoire de l'innovation ville-port. Le concept de valeur partagée résume finalement l'ampleur des démarches entreprises par l'autorité portuaire pour esquisser une forme de nouveau modèle de la gouvernance ville-port.



**Peter V. Hall** concentre son analyse sur l'évolution récente des relations entre la métropole et le port de Vancouver. Les inscriptions physiques et spatiales du port et de la ville apparaissent essentielles pour comprendre l'évolution des organisations en charge de la gestion de l'aire métropolitaine. La fusion de trois autorités portuaires pour former *Port Metro Vancouver* démontre la plasticité nécessaire aujourd'hui pour assumer des organes de gouvernance en phase avec les réalités de la demande de services portuaires et logistiques. L'auteur utilise les résultats qualitatifs et quantitatifs d'une étude pour catégoriser les impacts du développement portuaire ressentis par la communauté métropolitaine. Dans le cas des activités de PMV, les critiques les plus vives et les plus insolubles relèvent de la nuisance croissante des trafics routiers. Peter Hall met en avant combien les municipalités de l'aire métropolitaine adoptent des stratégies différentes en fonction de l'intensité des externalités négatives sur les circulations routières. En guise de réponse, les autorités portuaires cherchent à optimiser l'usage commercial de leurs réserves foncières en anticipant la réduction des nuisances directes subies par les populations riveraines.

### Smart-port city : essais prospectifs sur les gouvernances de demain



Dessin : Phetxomsouk Manivong



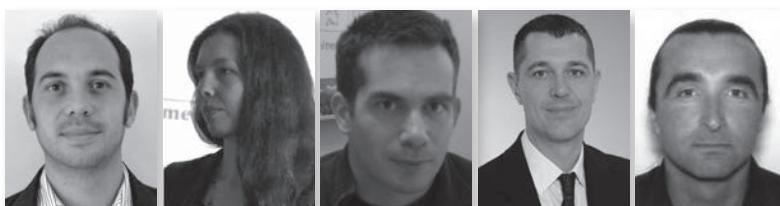
**Marlène Renault** apporte un regard décalé avec le rôle prégnant que pourrait incarner la culture dans la gestion future des relations entre un port et sa ville. A l'instar de ce qui a été mis en avant dans la contribution sur le cas de Valparaiso, les principes collaboratifs sont au cœur d'une créativité synonyme de potentiels d'attractivité pour les territoires investis. L'organisation en clusters culturels sous-tend une action participative avec une citoyenneté culturelle qui pourrait influencer par ses aspirations et ses usages le modelage de la gouvernance ville-port. Marlène Renault remet l'humain et le citoyen au cœur de productions pour lesquelles le sentiment de l'habitant portuaire est moteur de culture. En écho au concept de porosité spatiale abordé dans la capsule suivante, l'auteure édicte que la culture est un liant indispensable des territoires et interfaces ville-port. La culture comme un élément cognitif d'acceptabilité conclut la réflexion.

**Hilda Ghiara, Philippe Demoulin et Greta Marini** insistent sur la perception



citoyenne dans le contexte d'une relation ville-port de plus en plus distendue. La perte de liens entre activités commerciales portuaires et bien-être des habitants ainsi que la multiplication des revendications environnementales et sociétales constituent quelques-uns des facteurs qui ont conduit

à l'émergence de Port-Center. Les auteurs expliquent combien les Port Center ont comme vertus de recréer du sens et de la conscience autour de la plus-value générée par la communauté portuaire peut générer sur les populations locales et régionales. Les exemples internationaux montrent l'impérieuse nécessité de sensibiliser les jeunes générations sur les potentiels et les diversités d'emplois qui s'offrent avec le développement logistique et portuaire. Bien plus qu'un simple outil de communication et de sensibilisation, les Port Center visent à recréer du lien entre le port, la ville et les habitants. Le cas du Havencentrum Lillo à Anvers et celui plus récent de Gènes mettent aussi en avant que les objectifs d'un Port Center peuvent évoluer avec l'expérience et se teinter de spécificités locales selon l'évolution des relations récentes entre le port et sa ville.



**Nicolas Mat, Juliette Cerceau et Guillaume Junqua** du laboratoire LGEI de l'Ecole des Mines d'Alès, accompagnés de **Frédéric Dagnet** et **Hervé Moine** du Grand Port Maritime de Marseille (GPMM) partagent leurs observations sur les développements novateurs de l'économie circulaire au port

de Marseille. Après avoir rappelé les configurations spatiales et organisationnelles de l'espace industrielo-portuaire de Fos-Marseille, les auteurs reviennent sur les cloisonnements institutionnels et la juxtaposition des identités générées par la déconnexion récente entre la ville et le port. La transition vers une société moins tributaire du carbone impose des stratégies d'adaptation et le port a fait le pari de nouvelles opportunités dans l'optique de recréer de la valeur, de l'emploi et du lien avec le territoire et les collectivités. Le collectif marseillais détaille les fondements de la stratégie marseillaise, notamment en matière d'écologie industrielle. Densification des interactions entre acteurs pour une intelligence territoriale dans une gouvernance repensée et réactivée : telle est la réussite en cours d'expérimentation à Marseille aujourd'hui mais aussi ailleurs en France. La collaboration entre chercheurs et gestionnaires atteste d'une vision partagée et co-productrice de nouveaux modèles d'action... et donc de gouvernance. La conclusion démontre que la « porosité spatiale » se valorise par la volonté de partager des expériences, des projets et des résultats dans une ambition métropolitaine collaborative.



Le cas d'étude proposé par **Annette Agerdal-Hjermind** met en avant le rôle prégnant des réseaux sociaux dans la gestion corporative des relations entre un armement et son environnement d'acteurs. La chercheure danoise présente une analyse détaillée sur ce que représente aujourd'hui la puissance des réseaux sociaux dans un univers d'informations instantanées et partagées. La gouvernance paraît complexifiée par le caractère impalpable et très faiblement maîtrisable des réseaux sociaux. Le cas de Maersk Line, leader mondial du transport maritime conteneurisé sert de support à la réflexion. L'image Corporate 2.0 est ainsi disséquée via plusieurs échanges de « communication sociale maîtrisée ». Stratégies d'écoute, de partage et de transparence sont au cœur d'une nouvelle dimension de la communication qui s'adresse à des cibles préalablement identifiées selon des processus quasi scientifiques. Maersk Line innove dans son aptitude professionnelle à diffuser du savoir et de la connaissance vers le plus grand nombre tout en renforçant son leadership, notamment auprès des éditorialistes et des « faiseurs d'opinion ». Cette capsule originale met en exergue combien la gouvernance d'une entreprise aussi dominante que Maersk Line peut se nourrir du pouvoir des réseaux sociaux. Dr. Agerdal-Hjermind met en évidence également combien les réseaux sociaux permettent à la compagnie maritime d'encauser mieux maîtriser les ficelles de sa propre histoire ; ce qui s'avère une intéressante conclusion. Plus le partage semble ouvert, et plus Maersk Line semble avoir le contrôle de sa propre histoire de communication. La chercheure danoise conclue sur les perspectives d'une telle aventure sociale médiatique pour les autorités portuaires et les institutions.



**Olaf Merk** met toute son expérience sur les villes portuaires mondiales dans une conclusion qui pose la question de l'efficacité des politiques de gouvernance de la relation ville-port. Dans quelle mesure devient-il possible de déployer des outils méthodologiques pour qualifier et quantifier si une ville développe d'efficaces relations avec son port, et inversement ? Tel est l'apport du chapitre de conclusion qui reprend les résultats de travaux empiriques réalisés par l'auteur dans le contexte des recherches du Port-Cities Programme de l'OCDE. Les indicateurs développés par l'auteur mettent en avant l'efficacité des politiques de R&D ou des programmes destinés à la facilitation des pré et post-acheminements routiers au sein des territoires étudiés. Olaf Merk conclut cependant que l'efficacité de la gouvernance ville-port exige que des activités portuaires compétitives impulsent de la croissance économique urbaine tout en maîtrisant ses externalités négatives sur les populations locales. Loin de dégager des vérités absolues, les travaux de l'OCDE mettent en garde sur les limites de l'universalité des conclusions de telles démarches. La singularité des politiques et de leur mise en application relèvent de particularismes souvent locaux et régionaux.

# Partie I

## Apports académiques

### Chapitre 1

### L'approche urbaine de la gouvernance ville-port

*Jeanne-Hélène Jugie*

*Chercheure associée*

Centre interuniversitaire de recherche sur les réseaux d'entreprise,  
la logistique et les transports (CIRRELT)

Université de Montréal

Montréal Québec - Canada

## Biographie

**Jeanne-Hélène Jugie** possède une double expertise de géographe et d'urbaniste-aménageur. Elle possède une solide formation de géographie physique et surtout humaine, sanctionnée par l'agrégation externe de géographie française. Elle est chercheure associée au Centre interuniversitaire de recherche sur les réseaux d'entreprise, la logistique et le transport de l'Université de Montréal. Elle poursuit ses recherches sur la logistique et les grandes infrastructures de transports en lien avec l'urbanisation. Elle cherche à croiser les champs d'expertises urbaines et portuaires ainsi que les études régionales. Son intérêt pour la gouvernance ville-port, la logistique verte et inverse, ainsi que la durabilité portuaire, la porte naturellement vers l'écologie politique, les mesures d'atténuation et d'adaptation au changement climatique.

## Introduction

L'urbanisation est un des processus globaux contemporains qui s'opère notamment par métropolisation en ce début de XXI<sup>e</sup> siècle. À l'horizon 2040, le monde comptera plus de 500 villes millionnaires, parmi lesquelles de très nombreuses villes portuaires. Celles-ci ont la particularité de surimposer les grands nœuds de transport et de communication globaux aux liens commerciaux interurbains. De ce fait, la dualité de ces villes est fortement mise à mal par les évolutions technologiques et macro-économiques.

Les relations entre ces deux géants territoriaux n'ont jamais été faciles. Cependant, les évolutions récentes les ont fortement éloignés, sur le plan morphologique comme sur le plan fonctionnel. C'est pourquoi il existe actuellement un grand besoin de redéfinir la gouvernance entre la ville et le port, ce qui pose un certain nombre de questions : Comment les relations ville-port ont-elles évolué ? Quelles en sont les répercussions sur la gouvernance ville-port ? Quels enjeux renouvelés émergent ?

### *L'évolution des relations ville-port*

Les noyaux urbains se sont souvent cristallisés sur une installation portuaire, et ce dès l'Antiquité. C'est finalement la Révolution Industrielle qui distend cette symbiose morphologique et fonctionnelle en forçant le port à sortir de son site urbain devenu trop exigu (Bird, 1963; Hoyle, 1989). Jusqu'alors, la ville est dépendante pour son approvisionnement de son arrière-pays - qu'elle structure

par un réseau routier, ferroviaire et parfois fluvial (Taaffe *et al.*, 1963), et d'un avant-pays maritime ciblé. Avec les débuts de la production de masse, des marchés toujours plus larges s'ouvrent, générant des flux maritimes croissants. Les zones de stockage se multiplient. Les navires eux-mêmes évoluent, leur tirant d'eau augmente et des opérations de canalisation et de surcreusement des ports sont indispensables pour que la ville garde son caractère portuaire, garant de sa prospérité. Pourvoyeur d'emploi majeur, porte d'entrée sur le monde, le port commercial est aussi militaire. Il est indispensable à la ville, et leurs enjeux de gouvernance sont massivement convergents. C'est pourquoi les tensions, qui existent de tous temps, prennent rarement de l'ampleur.

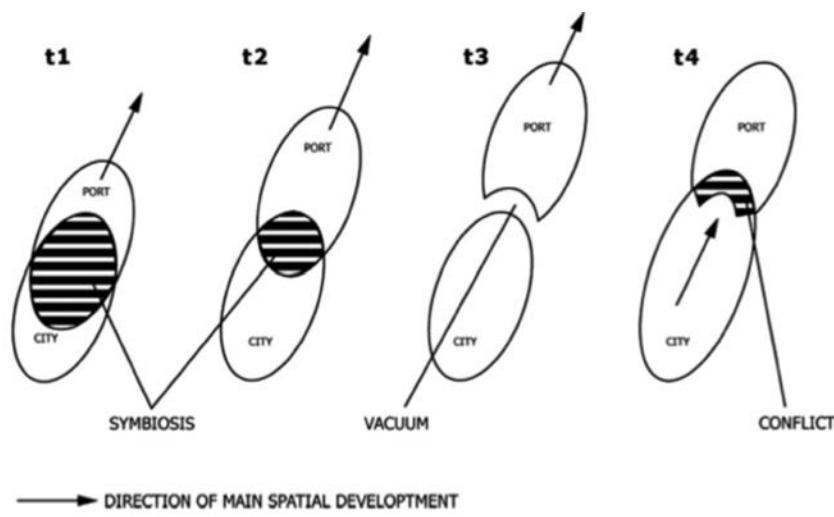
Avec la Révolution Industrielle, les progrès technologiques dans la production et la navigation sont sans commune mesure avec ceux des époques précédentes (Chan et Yip, 2010; Marnot, 2006). Les anciens ports deviennent insuffisants et la ville doit laisser le port s'étendre sur le littoral. Cela se fait soit en milieu urbain, sur des emprises contigües au port originel, soit dans les faubourgs de la ville. Le port se spécialise peu à peu. Ainsi l'affaiblissement du lien morphologique intervient-il dès le début du XIXème siècle, lorsque les quais et les entrepôts urbains commencent à s'avérer insuffisants pour les nouveaux déploiements portuaires. Mais les liens socio-économiques et spatiaux restent forts (Hayuth, 1982; Norcliffe, *et al.*, 1996; Merk, 2013) et les enjeux des deux parties, complémentaires.

La sortie du port de l'espace urbain se confirme dans la deuxième moitié du XXème siècle : la révolution de la conteneurisation, dans les années 1950 et surtout 1960, oblige le port à chercher de vastes emprises aisément accessibles, et des tirants d'eau importants pour répondre au gigantisme naval (Taffee, *et al.*, 1963; Rimmer, 1967; Hoyle, 1989). Le port s'installe en espace périurbain voire, lorsque le milieu physique ne le permet pas, en dehors de la ville. Cela génère de vastes friches portuaires en cœur urbain réinvestis par la ville (Hoyle, 1989; Norcliffe, *et al.*, 1996). La conteneurisation des marchandises entraîne une hausse du trafic de transit et une forte mécanisation de la manutention. Le fret ne fait plus que passer dans le port avant d'être acheminé plus loin, dans l'arrière-pays. L'ascendant du port sur la ville baisse, car les emplois portuaires sont de moins en moins nombreux en ville. L'ascendant de la ville sur le port décroît d'autant, car ses fonctions de bassin de main d'œuvre et de marché sont graduellement remises en question (Merk, 2013; Hesse, 2008). La rupture morphologique s'accompagne donc d'une rupture fonctionnelle.

Les années 1980 et 1990 connaissent d'importants bouleversements macro-économiques qui accentuent ce processus. Le port s'intègre aux chaînes logistiques globales et se déterritorialise. Les enjeux de gouvernance du port semblent dorénavant étrangers à ceux de sa ville-hôte qui poursuit sa propre logique de métropolisation.

L'étroite interdépendance socio-économique entre la ville et son port sur un temps long a permis la création d'une identité portuaire souvent forte, et un consensus social à la hauteur des enjeux communs. Mais la rupture des liens et l'irruption de nouveaux enjeux de durabilité - notamment environnementale - provoquent à présent une hausse des conflits entre la ville et le port. Ces tensions remettent brutalement en cause les relations ville-port dans les années 2000 (Wiegmans et Louw, 2011). La rupture semble à présent consommée (Figure 1). Les liens traditionnels entre la ville et le port doivent donc céder la place à de nouvelles relations, adaptées à cette nouvelle contingence.

**Figure 1.** Modèle de relations ville-port



Source: Wiegmans et Louw, 2011 inspiré de Norcliffe, et al, 1996

## *L'ouverture de la gouvernance*

Dans les années 1980 et 1990, les privatisations se multiplient et les partenariats Public-Privé deviennent la règle dans la gouvernance des collectivités territoriales (Daamen 2010). Parallèlement, les ports sont intégrés dans les chaînes logistiques et ouvrent leur gouvernance à leurs partenaires (Robinson, 2002). Des communautés urbaines et des communautés portuaires se constituent, de sorte qu'il faut à présent composer avec de nombreux acteurs décisionnels, aux multiples perspectives, envergures et enjeux (Merk, 2013; Rimmer, 2007; Woudsma, 2013). Ceux-ci sont fréquemment différents, voire contradictoires, et d'importants enjeux régionaux et globaux se cristallisent à l'échelle locale (Hall, 2008; Hesse, 2010).

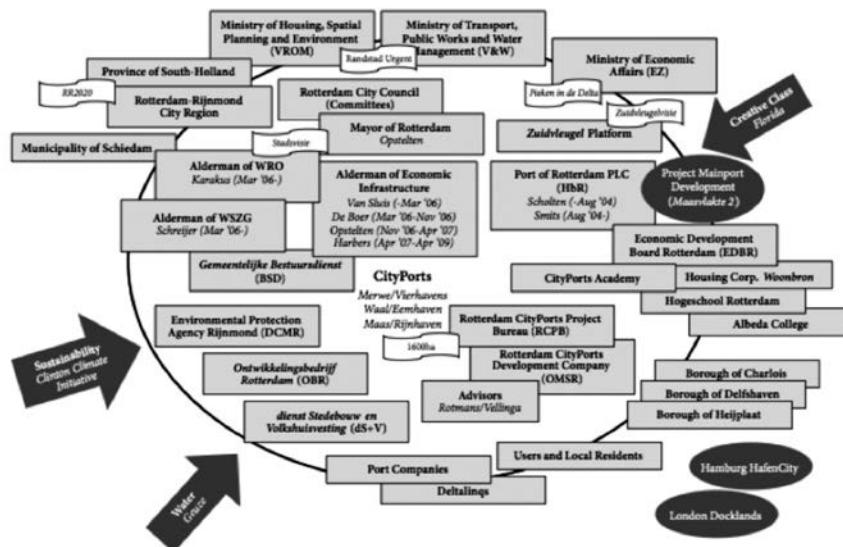
Les activités logistiques, soient le groupage/dégroupage, la consolidation, l'entreposage et la distribution des marchandises, sont de moins en moins opérées au port. Elles se diffusent dans l'espace métropolitain (Bowen, 2008; Cidell, 2010). Cela multiplie les territoires et les populations concernés par l'activité portuaire. Les municipalités concernées sont donc devenues plus nombreuses, ce qui fragmente la gouvernance urbaine face à la chaîne logistique qui, de son côté, est de plus en plus intégrée. Les différentes compétences territoriales sont de plus partagées entre l'échelle locale (la municipalité) et l'échelle régionale (le regroupement de communes et la région ou province). La gouvernance territoriale est donc à la fois d'être fragmentée et multiscalaire. Elle souffre de plus en plus de ses clivages et partages de compétences, voire de ses contradictions (Comtois et Slack, 2005).

Enfin, l'espace de l'arrière-pays portuaire, que les flux soient matériels ou informationnels, ne correspond aucunement à l'espace de gouvernance territoriale, que celle-ci soit l'agglomération ou la région. Tout cela complexifie d'autant la gouvernance ville-port.

La démocratie participative se développe et provoque l'arrivée en force d'un nouvel acteur dans la gouvernance territoriale: l'opinion publique (Oakley, 2011; Hagerman, 2006; Sairinen et Kumpulainen, 2006). En effet, les habitants sont à la fois soumis à des nuisances portuaires de plus en plus nombreuses, et une conscience environnementale de plus en plus développée. Les contestations se multiplient et s'exacerbent, confortés par la régulation publique et le discours ambiant de la durabilité. Les tensions se médiatisent et l'acceptabilité sociale est de plus en plus difficile à obtenir pour les activités portuaires.

La recherche urbaine intègre ces nouvelles dimensions en adoptant de nouvelles méthodes de recherche, notamment les analyses qualitatives basées sur des enquêtes et des entrevues (Hagerman, 2006; Sairinen et Kumpulainen, 2006). Les liens relationnels entre les acteurs sont analysés grâce à la théorie des arènes (Figure 2). Mais les études portuaires ne prennent pas encore véritablement en compte la perspective sociétale.

**Figure 2.** Arène des acteurs ville-port à Rotterdam de mars 2006 à mai 2008



Source: Daamen, 2010

## L'évolution du couple ville-port

Depuis les années 1990, les rôles des acteurs évoluent fortement sous le coup des mutations macro-économiques, technologiques, et de l'ouverture de la gouvernance. Ainsi, Oakley (2011) montre que les villes sont de plus en plus tolérantes aux discours néo-libéraux qui prônent la liberté de marché, et qu'elles tendent à délaisser leur rôle de régulateur au profit de celui d'entrepreneur d'économie de marché. Les partenariats Public-Privé expliquent cette évolution : la compétition ne se fait pas seulement entre les villes mais également entre les acteurs de la communauté urbaine. Les villes adoptent ainsi de plus en plus un mode de gouvernance flexible et contextuelle, pragmatique (Daamen, 2010; Hagerman, 2006; Desfor et Jorgensen, 2004) comme solution à cette complexification.

Pour leur part, les ports adoptent fréquemment un rôle de promoteur immobilier, pour gérer l'installation des activités logistiques dans l'arrière-pays et le développement d'avant-ports maritimes (Rimmer, 2007; Notteboom et Rodrigue, 2005 ; Rodrigue et Notteboom, 2010). Cela leur permet de maîtriser au mieux leur déploiement territorial, enjeu de plus en plus stratégique de compétitivité portuaire. La régulation environnementale croissante, le besoin d'acceptabilité sociale et la nécessité d'innover pour distancer la concurrence les incitent à s'engager dans des projets d'écologie industrielle, d'atténuations et de compensations environ-

nementales (Comtois et Slack, 2005; Bergqvist et Tornberg, 2008). De la sorte, ils intègrent peu à peu la gestion de l'environnement à leurs stratégies d'affaires.

Le rapprochement des rôles de la ville et du port brouille la gouvernance ville-port. L'opinion publique, pour sa part, semble jouer un rôle grandissant de tempérance des velléités libérales des partenaires privés à la fois de la ville et du port. Elle se pose de plus en plus en garant de la vision institutionnelle face à un État qui, en adoptant des politiques de décentralisation, tend à se désengager de la gestion des territoires (Oakley, 2011; Porter et Kramer, 2006).

La gouvernance ville-port est donc soumise à un changement d'échelle majeur, celui de la régionalisation du port (Notteboom et Rodrigue, 2005) et de la métropolisation. C'est à présent ce cadre élargi qu'il faut analyser.

Il existe différents types de villes portuaires en fonction de la trajectoire respective et des caractéristiques de la ville et du port. Hesse (2010) dresse une typologie des villes portuaires: 1) grandes villes diversifiées avec un déclin des fonctions portuaires et de porte d'entrée; 2) villes portuaires stables, avec cependant un déclin du port dans l'économie régionale; 3) villes portuaires qui expérimentent un déclin constant de la concentration portuaire (diffusion dans l'arrière-pays); 4) villes portuaires en gain de compétitivité ou étendant leur arrière-pays, développant des stratégies d'alliance ou des changements institutionnels.

Merk (2013), développant une typologie proche, mentionne à son tour quatre types de couples ville-port en fonction de leurs stratégies territoriales. Ainsi, à Singapour, les fonctions portuaires comme urbaines sont en expansion. La ville bloque tout développement du port sur l'aire urbaine. Cela conduit le port à développer un nouveau site portuaire au-delà. La ville de Rotterdam pour sa part est en déclin alors que son port est en croissance, ce qui conduit ce dernier à étendre son arrière-pays. Dans le cas inverse, lorsque la ville est en croissance et le port déclinant, comme à Baltimore, c'est la ville conquérante qui «revitalise» son front de mer au détriment du port. Enfin, si les deux organismes sont déclinants, comme à Bilbao, c'est la ville portuaire dans son ensemble qui doit se reconvertir. Dans tous les cas, le projet de développement engage les deux parties.

Ainsi la gouvernance ville-port est-elle soumise en permanence à un rapport de force et aux stratégies respectives de la ville et du port. Bien que la gouvernance puisse prendre des directions fort diverses, trois domaines de convergence ville-port (Rimmer, 2007) sont identifiables: 1) le développement économique; 2) la planification urbaine et l'aménagement du territoire; 3) la gestion de l'environnement.

## *Les enjeux renouvelés de la gouvernance ville-port*

Les enjeux de gouvernance pour la ville se trouvent actuellement renouvelés par la reterritorialisation du port et la multiplication des acteurs. Ils tournent autour des effets de milieu générés par le port. Ils sont parfois positifs, mais les impacts négatifs sont en forte augmentation. Tous nécessitent une attention spécifique dans le contexte actuel d'atténuation et d'adaptation au changement climatique (UNCTAD, 2009). Or, le cloisonnement entre études urbaines d'une part, logistique et géographie des transports d'autre part, fragmente les études et opacifie les relations: les villes ne comprennent pas assez bien les contraintes, enjeux, et fonctionnement de la logistique; les entreprises privées mésestiment les enjeux urbains et l'importance de la planification du sol (Hesse, 2008). La localisation du fret dans l'espace urbain est particulièrement sous-étudiée (Bowen, 2008), ce à quoi quelques chercheurs essaient de remédier depuis une dizaine d'années (Hesse, 2008; Daamen, 2010). Les enjeux pour la ville peuvent se résumer comme suit:

### **Générer et retenir la valeur ajoutée portuaire**

La sortie du port au-delà des limites de la ville a de profondes répercussions économiques sur celle-ci: les retombées économiques traditionnelles (emplois directs et indirects, taxes) baissent fortement, au profit de l'arrière-pays. Ainsi, la dépendance économique de la ville envers l'activité portuaire subsiste mais devient moins forte, moins directe et surtout moins apparente, en raison de l'éloignement spatial et de la diminution des emplois urbains portuaires (Merk, 2013; Grossmann, 2008; Ducruet, 2008). En se diversifiant, la ville s'émancipe à son tour du port. Mais il lui faut alors trouver de nouvelles sources de revenus, et s'insérer toujours davantage dans les grands réseaux mondiaux.

Les anciens sites portuaires de centre-ville sont des emprises de choix pour les planificateurs, des opportunités foncières que la ville ne peut ignorer. Si la ville peut annexer ses banlieues, elle est surtout reproductible sur elle-même. Organisme situé, territorialisé, la ville fonctionne par exploitation des cycles de vie de ses emprises foncières. Elle est donc en partie tributaire des cycles économiques pour son renouvellement et sa revitalisation. Délocalisation de l'industrie légère, fermeture des sites d'industrie lourde, libération d'infrastructures ferroviaires et de sites de grands équipements devenus vétustes, tous ces bouleversements dans l'utilisation du sol sont autant d'opportunités pour l'adaptation de la ville moderne à ses enjeux successifs. De grandes emprises ont ainsi été récupérées et sont devenus les laboratoires de l'innovation urbaine de leur époque. À partir de la deuxième moitié du XXème siècle, les anciens sites portuaires représentent donc de formidables opportunités foncières pour réintroduire de l'urbanité en centre-ville. La «reconquête du front de mer» urbain permet à la ville de mener des

opérations de requalification paysagère, de valorisation foncière ainsi que des politiques de durabilité: densification et extension du centre, opérations urbaines de mixité sociale et fonctionnelle, coulées vertes et éco-quartiers viennent ainsi remplacer les friches portuaires (Hagerman, 2006).

Sur le front de mer urbain, l'économie de production portuaire cède la place à une économie de consommation souvent sans rapport avec le port (Oakley, 2011; Grossmann, 2008; Hagerman, 2006; Hall, *et al*, 2006). Les activités à haute valeur ajoutée et des équipements de prestige s'installent dans d'anciens sites portuaires, espaces rares et centraux au prix foncier élevé. Il s'agit pour la ville de renforcer sa visibilité internationale et sa compétitivité. Elle accueille les fonctions qui vont stimuler son processus de métropolisation: économies du savoir, culturelle et créative surtout. Le littoral urbain devient un des espaces privilégiés de la mise en réseaux et de la singularisation de la ville. Les activités urbaines remplacent donc les activités portuaires. Ce faisant, la ville centre est confrontée à deux problèmes: un processus de gentrification (Oakley, 2011; Grossmann, 2008; Laidley, 2007; Hagerman, 2006) et la perte de son identité portuaire (Oakley, 2011; Grossmann, 2008; Collin, 2005; Norcliffe, *et al*, 1996). Parfois, la ville développe des politiques de patrimonialisation (musée portuaire, préservation architecturale, lieux de mémoire, etc.) et multiplie les activités récréatives et touristiques liées à l'eau (nautisme, croisiérisme,...). Mais il lui arrive aussi de désirer oublier son passé portuaire pour se tourner radicalement vers autre chose.

La ville centre continue cependant à bénéficier des opportunités d'innovation portuaire et des emplois les plus qualifiés de l'industrie maritime, notamment dans les services dérivés (banques, assurances, service juridique) et la recherche et développement (Merk, 2013; Jacobs, *et al*, 2011). Plus que sa taille, le profil socio-économique de la ville importe quand il s'agit de redéfinir les liens avec le port: bassin de main d'œuvre, offre de formation, activités complémentaires pour des synergies de branche, etc. La structure économique de la ville oriente la spécialisation du port dans une certaine mesure (Merk, 2013).

Il semble incontestable que la fonction de moteur économique du port pour la ville est de plus en plus remise en question (Merk, 2013; Grossmann, 2008). Mais l'inverse se développe : avec la montée de l'économie du savoir, la ville peut à présent devenir un moteur économique pour le port, en lui offrant les services maritimes supérieurs (Jacobs, *et al*, 2011), la R&D et l'hyperindustrie nécessaire à son développement. Plus que sa fonction de marché, c'est à présent sa fonction d'accumulation des expertises et des connexions à divers réseaux qui rend la ville désirable pour le port. La collaboration économique entre la ville et le port a donc beaucoup changé, mais elle ne s'est pas éteinte pour autant. La fermeture des quartiers de dockers et de marins ne signifie pas que le transport maritime aie déserté la ville: le personnel, plus qualifié, tertiarisé, s'est fondu dans la population générale mais matérialise des intérêts économiques bien réels. Les chercheurs s'entendent pour dire que seul un couple ville-port efficace peut véritablement

générer de la valeur ajoutée (Merk, 2013). Il s'agit là d'une piste importante de renouveau des relations ville-port.

Cependant, en raison de la régionalisation des ports (Notteboom et Rodrigue, 2005), les retombées économiques ont de plus en plus tendance à quitter la ville pour l'arrière-pays et diluent ainsi les retombées économiques. Ainsi, dans l'arrière-pays, des opportunités émergent pour les municipalités, assorties de problèmes nouveaux : la localisation d'activités logistiques dans l'arrière-pays font miroiter aux collectivités des retombées économiques d'autant plus attrayantes qu'elles interviennent souvent dans un contexte de désindustrialisation, de perte d'emploi ou de déprise agricole. Ces nouvelles activités sont fortement désirables pour les retombées économiques dont elles sont la promesse.

Les retombées économiques d'un terminal de transport peuvent être évaluées en terme d'emplois directs et indirects, de taxes, de biens et de services induits et catalysés. Le tout est quantifiable en emplois et en dollars par tonne de marchandise, mais la nature de la marchandise importe : certaines génèrent plus d'emplois et plus de valeur ajoutée que d'autres (Hall, 2004). Or, les activités logistiques portuaires génèrent globalement d'importantes retombées économiques. L'évaluation de ces retombées dans l'arrière-pays est actuellement un enjeu primordial pour les municipalités. Elles doivent trouver le moyen d'évaluer les retombées avant l'installation des activités logistiques, car certains dangers guettent les municipalités candidates.

D'une part, elles peuvent se retrouver prises dans un processus pervers de compétition les unes avec les autres, pour attirer les activités logistiques. La nécessité de diversifier leur fiscalité les rend parfois très vulnérables face aux entreprises, et elles sont amenées à faire de la surenchère dans les exonérations et incitations financières ou le dézonage pour être plus attractives que leurs compétitrices. Cette compétition inter-villes au sein d'une même aire urbaine ajoute à la fragmentation de la gouvernance urbaine déjà forte, et est contre-productive pour le territoire. C'est là une fragilité qui ne peut être combattue que par une réforme de la fiscalité territoriale. C'est une condition *sine qua non* à une gouvernance collaborative entre les municipalités à l'échelle de la communauté de communes ou de la métropole (Woudsma, 2013; de Lara, 2013). D'autre part, les municipalités doivent retenir ces activités portuaires, dont la volatilité augmente fortement.

Les transporteurs prennent de plus en plus le contrôle de la valeur ajoutée et hésitent de moins en moins à délocaliser certaines activités pour des gains de production globaux sur la chaîne. On observe ainsi l'augmentation des locations de terrains par les entreprises. Être locataire permet des déménagements faciles et fréquents, ce qui augmente la réactivité aux changements de conditions du marché. Les cycles de vie des activités se raccourcissent. Par conséquent, l'implication des entreprises à l'échelle locale baisse, favorisant la déterritorialisation des activités prises dans les considérations globales des chaînes logistiques

(Hall, 2008). Pour les collectivités territoriales, cela a l'inconvénient d'augmenter la volatilité des entreprises. Face à cette logique globale, les municipalités, organismes situés, ancrés dans leur territoire local, ont du mal à tirer leur épingle du jeu. Pour fixer durablement les flux de marchandises, les municipalités doivent rendre leur territoire durablement attractif pour les entreprises, tout en préservant leur sol, leur tissu social et leur cadre de vie (Woudsma, 2013; de Lara, 2013).

## Préserver l'environnement et l'équité sociale du territoire

Alors que les villes centres n'ont aucun mal à se régénérer, la situation est très différente dans l'arrière-pays. Les besoins de l'industrie en disponibilité foncière sont très grands et requièrent des localisations à faible coût foncier. Cela fait des petites municipalités périurbaines ou rurales des candidates de choix pour une localisation logistique. Ainsi, en raison des très nombreuses mutations de la logistique et de l'augmentation générale des volumes de marchandises transitant dans l'arrière-pays, certaines périphéries urbaines sont à présent menacées de «*depot sprawl*» (Bowen, 2008). Un des enjeux urbains majeurs, largement sous-estimé par les collectivités et par la littérature, est la raréfaction du sol, ressource limitée des territoires.

Pour être attractive, une municipalité doit allier accessibilité, disponibilité foncière et bas prix foncier, et mais aussi adopter une régulation peu contraignante, notamment permettre l'activité logistique de fonctionner 24/7. Or, les grandes infrastructures portuaires, terminaux et axes de transport, impactent le tissu urbain de façon importante. La proximité d'un port est globalement perçue comme une nuisance qui déprécie l'espace (Grobar, 2008; Woudsma, 2013) et est source d'enclavement, de ségrégation socio-économique et ethnique (Grobar, 2008). Le transport maritime ne concerne les passagers que de façon marginale et ponctuelle (croisières). Les ports ne sont donc pas source d'accessibilité pour les habitants, et ces vastes emprises fragmentent l'espace urbain, enclavent certains quartiers, disloquent les communautés (Woudsma, 2013; de Lara, 2013).

Les externalités négatives sont nombreuses : émissions de GES, pollutions sonores, paysagères, atmosphériques, congestion routière, etc. (Merk, 2013; Wiegmans et Louw, 2011; Daamen, 2010). Les activités logistiques génèrent fréquemment, pour la fonction résidentielle, une dépréciation du foncier dans le voisinage des entreprises, à la mesure des externalités dégagées par les infrastructures de transport (de Lara, 2013). C'est un problème qui touche particulièrement les terminaux portuaires. La nature des marchandises (conteneurs, vracs solides, vracs liquides, etc.) est prépondérante, certaines dégageant davantage d'externalités négatives que d'autres.

Ces dangers guettent plus particulièrement les municipalités pauvres, fragilisées par la désindustrialisation ou la déprise agricole. Elles sont plus que les autres inclinées à attirer les activités les plus polluantes, moins courtisées par les munici-

cipalités bénéficiant d'atouts de localisation plus valorisants (Woudsma, 2013; de Lara, 2013). Ces municipalités en difficulté se retrouvent alors confrontées à des nuisances environnementales qui compromettent la qualité de vie des populations et peuvent à terme annuler les facteurs attractifs de la communauté. Les entreprises, privées des externalités positives qui les ont attirées, peuvent alors se délocaliser et le cercle vertueux du développement local laisse la place à un cercle vicieux de l'injustice socio-spatiale (Bowen et Leinbach, 2011; Woudsma, 2013; de Lara, 2013).

En contexte urbain ou périurbain, la distance aux habitations est un critère majeur (Bergqvist et Tornberg, 2008; Jacubicek et Woudsma, 2013). Les villes doivent adopter des mesures d'atténuation des nuisances locales en isolant les activités polluantes des quartiers résidentiels. Si un processus de dépréciation de l'espace se met en place, des populations pauvres à la recherche de foncier abordable s'installent dans ces quartiers enclavés (Woudsma, 2013). Cela est source de ségrégation socio-spatiale et d'iniquité sociale.

De ce constat, de nombreux enjeux émergent: 1) la préservation des ressources du territoire, notamment le sol et le capital humain, la bonne gestion de l'environnement et le respect de la capacité environnementale; 2) l'intégration des mobilités urbaines et portuaires, pour une meilleure accessibilité et fluidité sur le territoire; 3) la nécessité d'une régulation et d'une planification, aux échelles locale et de l'aire urbaine.

## *Gouvernance collaborative et planification intégrée*

Il existe actuellement une nécessité flagrante de planification concertée entre la ville et le port, non seulement à l'échelle locale (Hesse, 2008; Daamen, 2010; Woudsma, 2013; de Lara, 2013) mais aussi à l'échelle régionale (Notteboom et Rodrigue, 2007; Bowen et Leinbach, 2011). L'étalement des emprises de transport et de logistique est particulièrement important dans les territoires faiblement régulés. En effet, régulation et planification sont des outils à la disposition des collectivités territoriales pour contrôler l'intensité des activités, notamment le stockage des marchandises. Les nouveaux terminaux logistiques, en concentrant ces activités, peuvent limiter le gaspillage du sol. Par le zonage et la régulation associée, les municipalités peuvent favoriser ou non l'installation d'activités logistiques, notamment par l'autorisation d'une activité 24/7. D'autres facteurs limitants sont maîtrisables par les municipalités, tels que la distance aux habitations et, dans une certaine mesure, le prix du foncier et certaines normes de rejets polluants. Le zonage permet de délimiter des espaces-tampons entre les activités et les habitants.

Les schémas d'aménagement régionaux et la planification municipale peuvent également encourager les grands projets public-privé. Les grandes infrastructures de transport, notamment les terminaux terrestres et les corridors intermodaux, sont des outils de structuration de l'urbanisation en milieu périurbain (Comtois, 2012). Elles favorisent des effets de catalyse des activités sensibles au temps. Si dans les années 1950 un corridor était un simple axe de transport, à présent, il constitue un axe de développement urbain structuré par un axe de communications physiques et un chapelet de centres urbains. Les «corridors de développement» actuels sont des pourvoyeurs de richesse et d'innovation (Comtois, 2012). Dans ce contexte, le terminal de transport peut être un moteur de développement (Hesse 2004).

Les nouvelles installations portuaires en milieu périurbain participent au processus de métropolisation des villes. Cela génère de nouvelles formes d'urbanisation: autour des infrastructures logistiques se développe une mosaïque d'espaces urbains et ruraux, calés sur la valeur foncière, d'une part linéairement le long des corridors de transports et d'autre part dans les espaces interstitiels en raison d'effets-tunnel. Mais ces méta-structures ne sont pas du ressort d'une municipalité, ni pour sa planification, ni pour son financement. Divers acteurs privés et publics doivent collaborer à un projet commun, dans lequel les municipalités s'insèrent et apportent leurs atouts territoriaux.

Cela nécessite une gouvernance collaborative, sous la forme, ou non, d'agences autonomes, d'initiative publique, privée ou mixte. Les stratégies de développement territorial permettent également d'intégrer les mesures d'atténuation et d'adaptation au changement climatique. Or, malgré la multiplication des initiatives locales, c'est à présent surtout l'échelle régionale qui est considérée. De plus, le financement d'un projet de corridor logistique, d'atténuation des impacts par compensation environnementale ou d'adaptation au changement climatique dépasse la capacité d'un acteur isolé: c'est à présent par l'économie du savoir, les transferts de compétences et de meilleures pratiques, et la collaboration que peut se faire l'innovation.

La création d'une région logistique d'envergure mondiale (O'Connor, 2010), apte à se placer dans le rang des villes globales de Sassen (1991), passe par la coordination de tous les acteurs, et la mise en concordance de l'envergure et des objectifs des projets de la ville comme du port (Sheppard, 2002; Hesse, 2010; Woudsma, 2013).

## Conclusion

La reterritorialisation des ports oblige les villes à échafauder de nouvelles stratégies pour leur recomposition territoriale. De plus en plus, la gouvernance est considérée à l'échelle régionale et intègre le partenariat public-privé. Les nouveaux corridors de développement et les régions logistiques semblent être les meilleurs outils d'atténuation des effets du changement climatique. Une planification durable, multi-acteurs et multi-échelles, intégrant différentes perspectives, est une gageure à modéliser et expérimenter. C'est pourtant là le défi que posent actuellement les relations ville-port. La complexité et le caractère très contextuel des enjeux (Sheppard, 2002; Hesse, 2010; Woudsma, 2013) rendent indispensable la collaboration des différents acteurs et l'étude préliminaire des forces et faiblesses du territoire, de la détermination de l'envergure d'un projet. La bonne entente ville-port apparaît de ce fait indispensable.

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## **Chapitre 2**

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# **Les échelles géographiques à la gouvernance ville-port**

*Claude Comtois*

*Professeur*

Centre interuniversitaire de recherche sur les réseaux d'entreprise,  
la logistique et les transports (CIRRELT)  
Université de Montréal  
Montréal-Québec - Canada

## **Biographie**

**Claude Comtois** est Professeur de géographie à l'Université de Montréal. Il est diplômé en science politique, possède un M.Sc. en géographie de l'Université Laval et un Ph.D. de l'Université de Hong Kong pour sa recherche dans le domaine des transports. Il est affilié au Centre de recherche sur les Réseaux d'Entreprise, la Logistique et le Transport de l'Université de Montréal (CIRRELT). Il possède plus de 10 ans d'expérience comme directeur de projets en transport pour l'Agence Canadienne de Développement International (ACDI). Il a été professeur invité dans plus de 15 universités étrangères. Son enseignement et ses recherches portent sur les systèmes de transport notamment le transport maritime et les ports. Il agit régulièrement à titre de consultant sur les politiques maritimes, le transport intermodal et l'environnement. Il est l'auteur ou le coauteur d'une centaine de publications scientifiques et de plus de 250 communications. Il a dirigé ou participé à une quarantaine de projets de recherche subventionnés en plus de collaborer au transfert de connaissances et de méthodologies appliquées aux systèmes de transport. Il supervise présentement des projets sur la compétitivité des systèmes portuaires, la configuration des réseaux maritimes océaniques et les mesures d'adaptation du transport maritime aux changements environnementaux.

# Introduction

Les villes portuaires doivent édifier de nouvelles assises pour répondre aux besoins de globalisation des marchés. De récents travaux démontrent l'intérêt qui consiste à analyser les conditions de gouvernance dans la gestion des systèmes portuaires et à « suivre les opérateurs de transport » dans leurs stratégies. Il existe une supériorité implicite dans les stratégies impliquant une coopération entre différents acteurs du triptyque portuaire (administration portuaire-industrie privée du transport-administration urbaine) à la compétitivité des villes portuaires. Souscrivant à cette approche l'objectif consiste à comprendre les conditions de gouvernance des villes portuaires. De façon davantage marquée, il s'agit d'évaluer les principaux enjeux auxquels la gouvernance portuaire est confrontée et de proposer les moyens nécessaires pour améliorer le processus décisionnel de sa mise en valeur. L'évaluation de propositions adéquates de gouvernance aux scénarios de compétitivité pour les ports soulève une série de questionnements. Quelles sont les grandes tendances dans la gouvernance portuaire? Quels sont les principaux défis de gouvernance? Quelles pratiques de gouvernance permettraient d'améliorer le processus de décision? Considérant l'ampleur des défis de gouvernance ville-port, l'analyse de la gouvernance doit être raisonnée et une approche à différentes échelles géographiques est suggérée – portuaire, urbaine, régionale et continentale. Cette démarche nécessite d'abord de conceptualiser le rôle et la fonction des intervenants dans la gouvernance des villes portuaires et d'identifier les principes de bonne gouvernance.

## *La gouvernance ville-port*

### **La structure de gouvernance**

La littérature sur les théories organisationnelles met en lumière que la performance d'une organisation dépend des relations entre les institutions, les mécanismes et les processus de gouvernance. Dans le contexte de la gouvernance ville-port, plus ces relations sont étroites, meilleur sera le niveau de performance du port. Inversement, une faible adéquation entre les composantes de gouvernance est associée à un faible niveau de compétitivité.

Les **institutions** incluent des intervenants des secteurs public et privé. Sur le plan public, un port peut être soumis aux instances politiques de différentes échelles institutionnelles. Sur le plan privé, l'exploitation du potentiel maximal des ports repose surtout sur les connaissances et les compétences des expéditeurs, des transporteurs et des opérateurs de terminaux. Une composante significative du secteur portuaire est la complexité de sa gouvernance. Le secteur regroupe des intervenants publics et privés qui jouent des rôles variés et dont les intérêts sont différents et souvent même divergents ou opposés. La gouvernance désigne

le processus régissant les relations entre ces intervenants réunis pour le développement, le contrôle et la gestion du système portuaire.

Les **mécanismes** facilitent la formulation et la mise en œuvre de stratégies de développement d'un port. Les activités régaliennes appliquées à un port concernent minimalement la définition de la superficie du port par règlements de zonage. Mais les organisations publiques peuvent également prescrire des normes, imposer un niveau de service et établir des standards dans les domaines de la sécurité, de la sûreté et de la protection de l'environnement. Force est de reconnaître toutefois que la complexité des conditions de gouvernance des systèmes portuaires rend l'exercice de ces fonctions administratives très variable. Les intervenants privés disposent quant à eux de la capacité de négocier des transactions commerciales et des accords de transfert dans les structures légales, financières et politiques spécifiques aux différentes régions du monde.

Les **processus** qui régissent les relations entre ces «parties prenantes» pour le contrôle et le développement des systèmes portuaires résultent d'un processus de concertation et d'établissement de priorités entre les législateurs et les intervenants privés. Ces agendas sont fixés dans des plans d'affaires et des plans gouvernementaux qui peuvent être accélérés, modifiés ou retardés en fonction de conjonctures environnementales, sociales, politiques et économiques. Par ailleurs, l'action des gouvernements ne se limite pas à des mesures législatives ou du financement. En outre, les entreprises privées peuvent participer à différentes interventions publiques par le biais de prises de position, de demandes ou de processus de consultations.

Il importe de souligner qu'il n'existe pas de configuration optimale de liens entre institutions, mécanismes et processus. La gouvernance ville-port n'est pas un exercice figé. La conduite d'un système portuaire est dynamique. Elle doit s'adapter aux exigences spécifiques des différents types de marchandises (vrac, cargo, conteneurs), de passagers (croisière, traversier, plaisance) et à leurs fonctions (transit, industriel, marché océanique). Par ailleurs, la direction du changement est influencée par les cycles économiques, les transformations environnementales et les innovations dans le domaine des transports et des communications. Dans ce contexte, la gouvernance ville-port doit s'inscrire dans le cadre d'un processus d'évaluation continue, en fonction de certains principes.

## Les principes de bonne gouvernance

Il existe une vaste littérature sur les principes relatifs à la saine gouvernance (World Bank, 1992; Commission des Communautés Européennes, 2001). Les principaux principes sont la clarté des mandats, la transparence, la représentativité, l'obligation de rendre compte, l'efficacité, la cohérence et la flexibilité.

Il convient de clarifier le rôle de chaque partie prenante au sein d'un port. La clarté des statuts juridiques permet aux parties prenantes de mener les actions

nécessaires au développement et au fonctionnement du port. La structure et le processus de décision au sein d'un port doivent être simples.

Les institutions qui œuvrent au sein d'un système portuaire doivent fonctionner de façon transparente. Les parties prenantes doivent pratiquer une communication active au sujet de leurs activités et de leurs décisions au sein du port. Ces institutions doivent employer un langage accessible et compréhensible pour tous. Ce principe de gouvernance permet d'améliorer la confiance dans les institutions.

L'amélioration de la participation des différents partenaires, incluant la communauté locale, accroît la confiance dans les institutions qui développent, gèrent et contrôlent un port. La participation dépend de façon déterminante de la capacité des institutions d'intégrer les intérêts du port à la compétitivité de la ville.

L'obligation de rendre compte sur les coûts, les revenus et les opérations d'un port réfère aux rôles des parties prenantes et de la responsabilité de leurs actions envers les actionnaires et les autres parties prenantes. Cette obligation demeure un facteur clé du succès d'une ville portuaire. La compétitivité d'un système portuaire repose sur les principes de fluidité et de développement durable. D'une part, quiconque développe ou opère un port doit se soumettre à des indicateurs d'utilisation et de performance des infrastructures et du site. D'autre part, les villes portuaires les plus efficaces sont celles qui adoptent des mesures de performance environnementale.

Les stratégies de développement et de fonctionnement d'une ville portuaire doivent être élaborées de façon à minimiser les coûts de transactions, optimiser les ressources utilisées et garantir un retour sur investissement. Les actions des intervenants dans le port doivent reposer sur des objectifs clairement définis permettant l'évaluation des impacts futurs.

Le principe de cohérence repose sur la définition du rôle et des responsabilités des parties prenantes au sein de la ville portuaire et sur la capacité d'élaborer des politiques et d'entreprendre des actions en lien avec ces rôles et responsabilités. La cohérence s'appuie sur une capacité de conduire le changement et de garantir une approche intégrée du port.

La flexibilité implique l'adoption d'une certaine souplesse dans la mise en œuvre d'un port. Les parties prenantes doivent être en mesure de s'adapter aux transformations de l'économie mondiale, de s'accorder sur l'évolution des objectifs des politiques nationales, de s'ajuster aux conditions locales et de répondre aux défis de compétitivité.

## *Les transformations de la gouvernance portuaire*

A l'évidence, il n'existe pas de modèle unique pour la gouvernance portuaire. Chaque port est soumis aux instances politiques des différentes échelles institutionnelles (municipale, régionale, provinciale, nationale, internationale). Par ailleurs, les modalités d'acheminement du fret maritime relèvent d'une prise de décision du secteur privé. Cette variété d'échelles et cette multiplication du nombre de «parties prenantes» constituent le cadre institutionnel général dans lequel s'inscrivent les modes de gouvernance des systèmes portuaires mondiaux.

### **Sur le plan du port**

La plus importante transformation de la gouvernance portuaire concerne les processus de commercialisation. Pendant la majeure partie du 20<sup>ème</sup> siècle, la forme la plus courante de gouvernance portuaire a impliqué un contrôle de l'État sur l'infrastructure et les opérations (Stevens, 1999). Depuis le début des années 1990, en réponse aux objectifs de réduction des dépenses publiques, les gouvernements ont entrepris une série de désengagements de leurs responsabilités traditionnelles en transport: privatisation des entités publiques, vente ou transfert d'infrastructures, ou du moins transfert de leur gestion à des corporations privées, introduction ou accroissement des tarifications pour les services demeurant sous responsabilité publique, etc. Cette situation a abouti à une introduction croissante du secteur privé dans la gestion portuaire qui s'exprime sous des formes variées de cession et transfert de responsabilités. Les acteurs privés ont ainsi obtenu des concessions à long terme pour exploiter une infrastructure fournie par l'autorité publique. Cette évolution a forgé une distinction entre les fonctions de concessionnaire et de régulateur relevant toujours de l'autorité publique et les fonctions d'opérateurs assurés par les acteurs privés. Alors que l'administration portuaire exerce un rôle dans la conception, la planification et la gestion du port, les stratégies corporatives des opérateurs privés cherchent davantage une meilleure maîtrise de la distribution des marchandises dans le but de capturer de nouveaux marchés d'importation, d'exportation et de transbordement. Compte tenu de ces processus de libéralisation et de commercialisation, les systèmes portuaires ne peuvent être le produit de théories et pratiques de planification centralisées. Désormais la gouvernance portuaire est de plus en plus le résultat de processus de décision décentralisés, menés par les forces du marché.

### **Sur le plan de la relation ville-port**

Le modèle traditionnel d'aménagement urbain fondé sur l'utilisation de la position relative d'une ville construite sur front maritime pour en assurer son développement est insuffisant pour permettre aux villes portuaires de jouer un rôle de puissants vecteurs d'échanges au sein des processus économiques globaux.

Désormais, le succès des processus de gouvernance des relations ville-port dépend de la capacité de la ville à incarner les ressources appliquées aux réseaux de transport maritime dans le cadre de centres de transactions maritimes. Les grandes villes portuaires sont des lieux privilégiés de localisation des donneurs d'ordres et de convergence des informations sur les opérations monétaires, les bourses de marchandises, le prix d'affrètement des navires et les règles d'organisation de l'industrie maritime. Les grands centres d'impulsion des échanges maritimes se distinguent en fonction de leur poids au sein de l'offre de services maritimes mesurée par 1) la présence d'activités bancaires, financières et boursières; 2) le regroupement de compagnies d'assurances; 3) le siège corporatif de transporteurs et opérateurs de terminaux globaux; et 4) l'autorité d'organismes qui imposent des standards à l'industrie maritime. Une analyse comparative à l'international démontre que Hong Kong, Hambourg et New York occupent le premier rang (Verhetsel et Sel, 2009). En Asie, Hong Kong est le principal nœud des informations maritimes et du flux des marchandises. Hambourg remplit ce rôle en Europe et New York en Amérique du Nord. Suivent au second rang les villes de Shanghai, Singapour, Tokyo, Bangkok et Londres. Anvers, Rotterdam et Guangzhou occupent ensemble le troisième rang. Ce sont ces pôles de commandement qui contrôlent le rythme des innovations dans le secteur maritime et qui déterminent l'organisation, le volume et la direction des flux maritimes.

### **Sur le plan de l'interface entre le port et sa région**

Les changements structuraux que provoque la logistique globale annoncent une redéfinition de l'interface entre le port et sa région. Les systèmes de transport sont fondamentaux à la formation des espaces économiques régionaux. Tous les scénarios de développement économique s'appuient sur une croissance du trafic de fret, de passagers et d'information. Mais cette croissance met en lumière la valeur du niveau d'accumulation de connexions entre infrastructures, production industrielle et le parc immobilier de l'environnement construit. Les ports nécessitent une ouverture vers les autres modes de transport. Il existe de multiples rivalités entre la voie maritime, le chemin de fer, le transport routier et les réseaux de conduites. Mais l'établissement de synergies entre tous les modes de transport s'avère critique pour le succès des villes portuaires. De nouvelles infrastructures, plus denses, fondées sur des liens multi-étages, intensifient les conditions de réseaux et les conditions du marché. Dans ce processus, les villes portuaires ne peuvent pas échapper à l'intermodalité. Cette fonction repose sur les plus grands marchés, génèrent les revenus parmi les plus élevés et offrent les plus grandes possibilités de croissance. Par ailleurs, l'organisation des systèmes de transport, liée à l'intermodalité et aux progrès technologiques, repose de plus en plus sur la qualité des services logistiques. Tant les administrations urbaines que les administrations portuaires doivent être conscientes que les plates-formes logistiques sont désormais un élément critique qui permet de dépasser le contrôle des espaces métropolitains traditionnels pour des espaces logistiques et des systèmes

de transport globaux. Ces considérations amènent les autorités publiques à doter les municipalités de moyens institutionnels pour définir une vision stratégique concomitante aux processus globaux en ayant une prise significative sur les enjeux d'aménagement du territoire et des systèmes de transport et en disposant de moyens financiers pour soutenir des activités, équipements et services à vocation supra municipale capables de s'imposer sur l'échiquier international dans le but d'intensifier leur processus d'intégration au sein des chaînes d'approvisionnement et des marchés internationaux et de contribuer ainsi au développement économique régional.

### **Sur le plan des connexions portuaires**

La gouvernance des villes portuaires est de plus en plus influencée par les processus de développement des corridors de commerce. L'objectif consiste à intégrer le système portuaire au sein d'un réseau de transport multimodal dans le but d'améliorer l'accès au marché, la fluidité des échanges commerciaux et le maillage industriel. Les avancées technologiques se concentrent essentiellement à améliorer tous les aspects des infrastructures physiques de transport terrestre, maritime et aérienne. Dans ce contexte, un port doit disposer d'interfaces majeures entre le commerce maritime océanique et les activités économiques des ports et des terminaux intérieurs qui fournissent les structures intermodales et les connexions entre les avant et arrière-pays du monde (Klink et Berg, 1998; Notteboom et Rodrigue, 2005). Mais les transactions commerciales exigent un effort d'adaptation des moyens d'acheminement. Inversement, l'amplification des capacités des modes de transport peut permettre l'expansion du commerce. Ces liaisons de causalité mutuelle sont désormais présentes dans les trafics des villes portuaires. La qualité et la capacité des modalités d'acheminement, des routes et des relais sont indispensables à toute expansion du commerce. Le développement des politiques de corridor soulève d'importantes questions de gouvernance, car leur organisation est marquée par une multiplication du nombre d'intervenants. Le processus régissant les relations entre les différents intervenants pour l'organisation des corridors de commerce demeure critique.

### *Les défis de gouvernance portuaire*

Les ports sont marqués par un décalage grandissant entre, d'une part, les politiques publiques de soutien au transport maritime ou au développement portuaire et, d'autre part, les stratégies corporatives d'acheminement du fret maritime.

### **A l'échelle du port**

Les processus de dessaisissement et de commercialisation portuaire tendent à morceler les problèmes d'amélioration ou de modernisation des infrastructures portuaires en des phénomènes locaux et particuliers. Le découpage de la décision en multiples lieux, secteurs, projets et sujets rend très difficile l'élaboration

d'une ligne politique d'ensemble pour le développement d'un port. Sur le plan de la gouvernance, ces processus ralentissent le développement des infrastructures portuaires. La transformation de la structure de propriété des actifs a mené vers la location de la plupart des terminaux en des termes d'utilisation exclusive. Ces contrats rendent difficile l'entrée de nouveaux transporteurs maritimes sur le marché. Il en résulte que les membres de différentes coalitions d'intérêts font la promotion de circuits de transport particuliers au travers de processus consultatifs ou décisionnels très variés. De toute évidence, cette situation ne permet pas de transformer les ports en axes prioritaires de transport, mais donne plutôt naissance à une liste de projets, souvent cloisonnés, préservant au mieux les intérêts des «parties prenantes».

## À l'échelle de la ville

Eu égard à la capacité transactionnelle des villes portuaires, l'analyse des flux portuaires révèle que les trafics maritimes sont basés sur la demande de différents secteurs de production et de distribution. Mais ce sont les grands donneurs d'ordres dans les secteurs agricoles, industriels, de la distribution ou du secteur des services à l'échelle internationale qui décident des modalités de participation du port dans les processus d'acheminement du fret. Ainsi Cargill, Bunge, Groupe Louis Dreyfus, multinationales du secteur agro-alimentaire, contrôlent le négoce du grain, les volumes de trafic et les choix de ports d'escales sur les réseaux portuaires d'Amérique, d'Europe et de Chine. Les décisions des grandes corporations agro-alimentaires canadiennes de rediriger la direction du marché du grain des Prairies canadiennes vers les marchés asiatiques ont considérablement modifié le volume de céréales manutentionnées dans les ports du système Saint-Laurent. L'adoption d'un plan de fermeture de plusieurs industries sidérurgiques européennes par Arcelor Mittal modifie profondément le trafic de minerai de fer tant sur le Rhin qu'en Méditerranée. Cette situation s'apparente aux processus de rationalisation des opérations des aciéries de la compagnie Dofasco Inc. située à Hamilton, Canada à la suite de son acquisition par Arcelor Mittal en 2006. En Chine, ce sont les stratégies de Baosteel Group Corporation qui fixent l'agenda du transport de charbon sur le Yangtze. L'industrie pétrochimique mondiale est également en pleine mutation. Aucune raffinerie n'a été construite aux États-Unis et en Europe depuis 30 ans. Celles existantes sont mal adaptées aux pétroles lourds. Certaines raffineries n'offrent plus de potentiel de croissance. La fermeture de plusieurs sites pétrochimiques en Amérique et en Europe est déjà programmée depuis plus de 10 ans. Les stratégies induites par les processus économiques globaux ont des impacts imprévisibles sur les trafics portuaires. Les volumes de fret sont davantage déterminés que déterminants. Le commerce de marchandises est largement dominé par les expéditeurs, transporteurs et opérateurs de terminaux internationaux. Leur décision d'utiliser un port en particulier est influencée par la position relative de ce port au sein de leurs réseaux globaux. Le développement de nouveaux trafics dépend largement des activités du secteur privé qui doit répondre à des objectifs

de performance financière. La réglementation a très peu d'effet pour assurer une offre continue de service de transport maritime, pour garantir un seuil d'activités portuaires ou pour assurer un minimum de revenus aux grands donneurs d'ordre.

## À l'échelle de la région

Le désengagement du rôle de l'État central au sein des ports a accru l'importance des régions, notamment en termes d'accessibilité et d'utilisation du sol. La décentralisation portuaire permet aux régions, via les schémas directeurs, et aux villes, par le biais des plans de déplacements urbains et des plans locaux d'urbanisme, d'exercer un impact sur les infrastructures portuaires ou le développement des fronts maritimes. Une analyse de l'interface entre un port et sa région repose sur une compréhension de la localisation des terminaux –élément clé du système de transport de fret. Mais force est de reconnaître que les intérêts urbains prédominent souvent sur les besoins maritimes. Les instruments de gouvernance des municipalités en termes de fiscalité, d'aménagement urbain ou de cohabitation entre les fonctions portuaires et urbaines répondent difficilement aux besoins d'accessibilité des ports qui leur permettraient d'atteindre un haut niveau d'efficacité. Les villes, en état de centralité, sont confrontées à un étalement urbain vers des municipalités limitrophes et conséquemment assistent à une détérioration de leur capacité fiscale. Les différentes initiatives proposées pour créer un esprit régional entre une métropole et ses municipalités contigüës ne permettent pas de composer avec les coûts reliés à la présence d'équipements et de services supra locaux et au vieillissement d'infrastructures sur le territoire. L'élaboration d'une vision d'ensemble des enjeux excédant le territoire de chaque municipalité tarde à se concrétiser. Conséquemment, les firmes logistiques entreprennent une tendance de délocalisation centrifuge des installations de distribution et de transbordement et un étalement des espaces logistiques. Ce déplacement favorise le camionnage et force une réévaluation de la pertinence des entrepôts portuaires.

## À l'échelle des arrière-pays

Le modèle des corridors de commerce, imposé au processus de gestion des ports, est gouverné par différentes règles dont certaines sont politiques et d'autres reposant sur des considérations économiques. Un corridor est une structure d'échanges qui se produit le long d'un réseau linéaire d'artères de transport entre un chapelet de villes. Mais l'unité de plusieurs corridors de transport doit être nuancée. Certains corridors urbains contournent les villes portuaires. Des villes portuaires affichent des limites à répondre à la complexité des chaînes de transport multiples articulées à plusieurs échelles géographiques. La volonté de transformer un port en plate-forme logistique pour l'acheminement ou l'écoulement de fret le long d'un corridor de transport repose d'abord sur la capacité de conquérir les parts de marché de son arrière-pays. Force est de reconnaître que certains ports ne jouent qu'un rôle marginal dans les échanges continentaux par rapport aux corridors de transport terrestre et n'affichent pas de forts taux de

croissance dans ce segment de marché en raison notamment de la difficulté à répondre aux logiques de production et de distribution en flux tendus. Plusieurs villes portuaires tardent à être considérées comme des éléments intégrateurs majeurs des corridors de commerce continentaux.

La ville exerce un profond déterminisme sur le développement portuaire. Sous la **dimension portuaire**, plusieurs administrations municipales méconnaissent l'ampleur des aménagements portuaires nécessaires pour s'adapter aux exigences de l'économie et du trafic maritime faute de quoi il décline. Ce manque de collaboration entre le port et la ville ne permet pas d'aboutir à une organisation raisonnée de l'espace péri-portuaire capable d'entraîner autour du port d'autres formes d'activités dérivées ou connexes. Sous la **dimension urbaine**, les villes ont une connaissance très ponctuelle de l'impact économique d'un port, de la capacité des activités portuaires à répondre aux fonctions de transit, de marché et d'industrie ou de la part de valeur ajoutée des services portuaires sur laquelle chaque citoyen peut compter pour participer à l'économie maritime. Sous la **dimension régionale**, force est de reconnaître une absence de valorisation de ces trafics qui freine considérablement le financement et la gestion des infrastructures de transport de l'agglomération urbaine dans leur ensemble. Il en résulte un manque de synergie entre le port et la ville sur la gestion des équipements de voirie qui traverse le territoire urbain dans les liaisons avec l'arrière-pays. Sous la **dimension des arrière-pays**, il existe une méconnaissance des bénéfices que le trafic des marchandises destinées ou en provenance de l'arrière-pays d'un port, car les services payés par les clients de l'arrière-pays aident à l'amortissement des équipements utilisés au port et contribuent aux revenus de l'agglomération urbaine.

Les administrations municipales doivent reconnaître que les activités d'un port représentent un facteur exceptionnel de rétention et d'attraction d'entreprises, un levier privilégié pour les exportations internationales, un outil remarquable pour valoriser le transport intermodal et dans certains cas un engin de croissance de l'industrie touristique.

## *Des trajectoires de gouvernance portuaire*

Force est de reconnaître que les ports et les villes ont des ambitions communes de croissance. Mais la compétitivité d'un port est fortement compromise par une série de problèmes. Les modes de gouvernance des systèmes portuaires ont évolué vers une imbrication des sphères publiques et privées dans la gestion des infrastructures portuaires. Sur le plan de la gouvernance, l'analyse des relations ville-port révèle que le soutien au développement et à la compétitivité du port repose sur un ensemble d'arbitrages. Les défis précités mettent en lumière la nécessité de faire concilier le support public au port avec la participation des parties prenantes aux interventions gouvernementales.

Les trajectoires s'adressent à l'ensemble des communautés maritimes pour inciter davantage l'administration portuaire, les transporteurs maritimes, les communautés locales et régionales à appliquer des stratégies de soutien et de développement aux activités portuaires. Plusieurs pratiques de mise en valeur des systèmes portuaires peuvent être identifiées.

## **Sur le plan de la gouvernance portuaire**

Les grands systèmes portuaires combinent des infrastructures physiques et des infrastructures non-physiques. L'infrastructure physique comprend le transport, les réseaux de télécommunication et les installations. L'infrastructure non-physique comprend le capital, les connaissances, la main-d'œuvre et les ressources appliquées aux réseaux physiques. L'exploitation du potentiel maximal des systèmes portuaires repose sur les connaissances et les compétences des expéditeurs, des armateurs et des opérateurs de terminaux. Trois orientations peuvent être considérées.

Premièrement, les administrations portuaires doivent considérer une gestion centralisée des terrains portuaires. Il existe un avantage indéniable à disposer d'infrastructures portuaires multifonctionnelles. Mais dans plusieurs ports, la gestion est affectée par la complexité des juridictions, les partages de trafics, la diversité des pratiques d'aménagement compatibles à l'équilibre des écosystèmes qui représentent des obstacles à la compétitivité portuaire. La gestion centralisée des terrains portuaires permettrait 1) une allocation efficace des investissements en infrastructure; et 2) une meilleure coordination des stratégies d'innovations.

Deuxièmement, les administrations portuaires doivent accroître la commercialisation et l'autonomie financière de tous les terminaux. Les relations de travail sont un aspect fondamental de la performance portuaire. La poursuite des réformes portuaires peut impulser un nouveau modèle de relations de travail fondé sur une réduction de l'arbitrage public. La relance portuaire repose davantage sur un partage des responsabilités financières entre les acteurs publics et les acteurs privés. Les partenariats publics-privés peuvent représenter une bonne option sous deux conditions. D'une part, les processus de consultation doivent permettre une meilleure compréhension des contraintes et obligations des parties et le développement d'actions concertées. D'autre part, il doit y avoir une distinction entre les infrastructures à être supportées par le secteur public et les superstructures financées par le secteur privé.

Troisièmement, les administrations portuaires doivent entreprendre des missions de démarchage dans le but d'accroître la présence d'autres transporteurs océaniques et opérateurs de terminaux. La présence d'actionnaires internationaux dans la gestion des terminaux portuaires est devenue impérative. L'objectif consiste à maintenir ou développer les activités portuaires sous la domination de capitaux étrangers. Ces investissements seraient consentis suite à l'instauration

d'un climat de confiance durable entre les acteurs, qui aurait pour effet de créer de nouveaux emplois pour les manutentionnaires locaux de fret par l'élargissement de l'éventail de routes maritimes et de ports d'escale en lien avec le port.

## **Sur le plan de la relation port-ville**

La priorité d'une ville portuaire, eu égard au transport des marchandises, concerne essentiellement la gestion du transport de fret desservant l'économie locale. Le trafic portuaire ne peut se développer qu'à la condition que la continuité organisationnelle des chaînes multimodales de bout en bout soit assurée et que le port soit intégré aux réseaux de transport de frets urbains. Les limites ou réductions d'emprise des zones d'activités limitrophes au port sont des choix préjudiciables pour le transport maritime. Les administrations municipales sont conscientes de la nécessité de contrôler ou favoriser les activités du port en raison de l'impact du transport maritime sur l'économie urbaine. Mais les politiques publiques ont surtout un impact indirect sur la mobilité du fret maritime. La plupart des intervenants publics sont préoccupés par des objectifs: 1) de sécurité; 2) d'accès public aux ports et aux autres infrastructures; et 3) de protection de l'environnement. Dans ce contexte, trois stratégies sont suggérées.

Premièrement, les représentants municipaux doivent davantage intégrer le port au sein des plans généraux de planification urbaine. Tous les agents économiques tentent de réduire les coûts de transactions. Ces coûts sont particulièrement marquants dans le secteur des transports en milieu urbain où il y existe une réglementation modale, une législation sur la structure des prix fonciers, un contrôle environnemental sévère et une rigidité dans les degrés d'accessibilité terrestre. La coïncidence entre les nœuds du réseau maritime et ceux du réseau de transport terrestre offre un immense potentiel pour l'élaboration de plans de développement concerté pour l'organisation de l'espace logistique d'une ville.

Deuxièmement, les administrations municipales doivent modifier les critères de subventions aux entreprises. Les municipalités disposent d'importants leviers pour le développement de nouveaux services portuaires. Deux axes d'intervention sont possibles: 1) offrir des avantages fiscaux aux entreprises qui désirent s'installer au sein d'anciens sites industriels riverains pour le développement de nouvelles entreprises de transformations; 2) inscrire dans les critères d'admissibilité de financement des entreprises, l'obligation pour les compagnies œuvrant dans le secteur des activités économiques secondaires de faire usage du port lorsque c'est possible.

Troisièmement, les administrations municipales doivent favoriser le développement de la logistique verte. La massification des flux induite par les processus globaux exerce une influence sur la multiplication des interfaces maritimes, des services de transport ports/ports secs et des opérateurs des frets spécialisés. Une des implications concerne l'augmentation des émissions polluantes et des

risques liés aux changements climatiques. Différentes initiatives sont élaborées pour limiter les émissions de CO<sub>2</sub> dans les réglementations de circulation et d'accès des camions. L'augmentation des prix de l'énergie associée à de nouvelles politiques environnementales, et plus généralement celle du coût généralisé du transport routier de marchandises, améliore la position concurrentielle relative de la voie d'eau. De nouvelles filières dont la grande distribution, la collecte et le traitement des déchets ont aujourd'hui recours au mode fluvial. La capacité de massification des flux du transport maritime s'intègre aux chaînes d'approvisionnement et d'écoulement de transport logistique vert. Les ports affichent un potentiel unique et privilégié sur l'utilisation de la voie d'eau pour le transport de matières dangereuses, des ordures et du matériel recyclé et des produits de la biomasse.

## **Sur le plan de l'interface entre le port et la région**

Les ports sont des centres économiques et de transport majeur. L'augmentation prévisible des flux commerciaux de conteneurs offre des opportunités en matière de création d'activités à haute valeur ajoutée par le biais de la logistique. Dans plusieurs cas, les activités logistiques sont établies sur des sites individuels de façon dispersée dans les franges des régions métropolitaines, entraînant une diffusion des activités logistiques et diluant les bénéfices économiques potentiels. Les conséquences sont doubles. Premièrement, cette diffusion des activités logistiques amenuise la performance économique des villes au profit de compétiteurs dans la centralisation croissante des activités de logistique et de distribution. Deuxièmement, l'absence totale de masse critique entraîne une domination du transport routier dans la desserte logistique, contribuant aux problèmes de congestion et de dégradation environnementale de la région. Trois mesures sont possibles.

Premièrement, les régions doivent faire la promotion de plates-formes logistiques en lien direct avec les activités portuaires. Les régions doivent développer un plan d'utilisation du sol qui comprend une offre foncière pour le développement de parcs logistiques répondant aux besoins du port. Un des éléments clés de la réussite du projet est de lier les grandes compagnies maritimes aux manutentionnaires locaux de fret. À cet effet, les différents niveaux de gouvernement disposent de plusieurs dispositifs permettant de faciliter la mobilisation de la part du privé dans le financement d'un projet d'une plate-forme logistique (i.e. garanties de l'État, offres partielles et ajustables). Des éléments de preuve à l'international démontrent que la visibilité économique internationale d'un chantier logistique permet d'attirer l'investissement privé.

Deuxièmement, les régions peuvent mettre en œuvre une politique tarifaire équitable entre le transport routier, le transport ferroviaire et le transport fluvial qui tient compte des externalités environnementales négatives. La connaissance des externalités de l'ensemble des modes de transport est fondamentale pour promouvoir le transport maritime et les activités portuaires. Or, il existe une profonde

inégalité des conditions de concurrence entre tous les modes de transport. Si rien n'est fait, le transport maritime pourrait perdre ses avantages comparatifs sur le plan environnemental.

Troisièmement, les gouvernements peuvent développer un indicateur de compensation environnementale au sein des stratégies régionales de développement durable. La comptabilité des pratiques d'aménagement des systèmes portuaires avec le maintien de l'équilibre des écosystèmes repose de plus en plus sur des techniques compensatoires. Certaines mesures de compensation environnementale permettent de réhabiliter des sites contaminés, de créer de nouveaux écosystèmes et de lutter contre les changements climatiques, notamment en ciblant sur la création de puits de carbone par la plantation d'arbres à croissance rapide et sur le développement de tourbières. Mais les enjeux liés au développement du transport maritime et des activités portuaires nécessitent l'adoption d'un cadre régional ou national de compensation environnementale. Les gouvernements doivent explorer le développement d'indicateurs de compensation environnementale qui tiennent compte du rapport, exprimé en mètres carrés, entre la surface de terrains décontaminés, récupérés, valorisés ou créés, et la surface de terrains aménagés à des fins de développement portuaire ou de transport fluvio-maritime. Les indicateurs permettraient ainsi de réduire les craintes de rupture d'équilibre d'ordre écologique des actions d'aménagement des zones fluviales ou côtières.

### **Sur le plan de la gouvernance des connexions portuaires**

La propriété et la gestion des infrastructures portuaires reposent sur une variété de combinaisons publiques-privées. La gouvernance des connexions portuaires relève d'une variété d'agendas de priorités. Ce cumul de mandats empêche le développement d'une vision intégrée des connexions portuaires. L'élaboration d'un plan d'intervention mobilisateur et rassembleur pour le développement d'un port est caractérisé par un morcellement d'intérêt public et privés en matière de planification et de coordination des activités liées au transport maritime de fret. Trois orientations sont suggérées.

Premièrement, il est possible d'introduire une nouvelle orientation dans la planification des ports qui reconnaît la nécessité des innovations dans les environnements physique, économique et construit. Les corrélations étroites entre performance environnementale et capacité concurrentielle de l'industrie suggèrent que des percées technologiques permettent de surmonter certaines contraintes environnementales tout en réduisant au minimum les effets externes négatifs. Sur le plan économique, les améliorations apportées aux pratiques portuaires dépendent du leadership régional motivé par la libéralisation dans l'organisation des systèmes de transport. Les cadres dirigeants qui soutiennent le développement du port et du transport fluvio-maritime, obtiennent souvent le soutien des gouvernements et la participation de partenaires pour concevoir des politiques et faciliter l'élaboration de stratégies. Sur le plan de l'environnement construit,

l'introduction d'innovations est associée à l'ajout d'infrastructures nouvelles et plus denses pour moderniser les réseaux portuaires existants et renforcer les capacités de transport des activités commerciales.

Deuxièmement, chaque ville doit impérativement entreprendre conjointement avec l'administration portuaire un programme de jumelage avec d'autres villes portuaires. La dimension institutionnelle d'un port doit reposer sur une ouverture sur le monde et une régulation de l'économie par le marché. La massification des flux constitue la priorité majeure pour les chargeurs, les prestataires logistiques et les utilisateurs finaux. Conséquemment, le développement d'un port doit être associé à une accentuation des processus d'intégration économique et à la mondialisation des marchés. Cette démarche représente une des conditions essentielles à l'accroissement des trafics maritimes en améliorant les logiques organisationnelles entre les acteurs qui participent à la chaîne de transport.

Troisièmement, il importe de réviser le cadre fiscal du transport maritime sur courte distance. Les coûts d'opération du transport maritime sur courte distance en termes de manutention, remorquage, douane, etc. sont les mêmes que pour le transport océanique. Ces coûts sont quasi immuables. Le volume minimum de fret nécessaire à un navire pour couvrir ses frais d'opérations est 50 fois plus élevé que pour le camion. L'augmentation des volumes permet de rendre le transport maritime sur courte distance concurrentiel. Les gouvernements doivent introduire un programme d'abattement fiscal minimum par tonne-kilomètre, réglementé et garanti, auquel un expéditeur aurait droit pour avoir utilisé la voie d'eau.

## Conclusion

La structure de gouvernance ville-port doit d'abord et avant tout offrir des opportunités d'affaires. Les meilleures pratiques sur le plan de la gouvernance reposent sur: 1) des processus de concertation dans l'établissement de priorités entre les « parties prenantes »; et 2) une décentralisation de la prise de décision. L'étude de la gouvernance ville-port met en lumière le décalage entre politiques publiques et stratégies corporatives privées. L'emboîtement des échelles géographiques permet de souligner la multiplication du nombre d'intervenants suite au processus de dessaisissement de l'État. Une analyse des conditions de gouvernance ville-port à l'international démontre que le secteur privé joue un rôle pivot dans la gestion portuaire lui permettant de réagir rapidement à l'évolution des conditions du marché et de favoriser l'innovation dans les pratiques de logistique.

Bien qu'il n'existe pas de compréhension commune sur la stratégie idéale de gouvernance ville-port, l'analyse suggère quelques caractéristiques particulières.

Premièrement, il importe de comprendre le rôle des corporations privées et leurs stratégies au sein des réseaux globaux en raison de leur contrôle sur les flux et la gestion des chaînes de production. Deuxièmement, le port demeure très dépendant des niveaux de gouvernements pour garantir l'accessibilité terrestre et maritime. Troisièmement, les liens entre le port et son arrière-pays sont menacés par des sites affichant des forces organisationnelles plutôt qu'une proximité physique au port. Quatrièmement, le rayonnement géographique d'un port s'étend au-delà de la zone portuaire et est associé à l'expansion des services maritimes entre des navires-mères de la grande navigation océanique et des navires-navettes pour le transport maritime sur courte distance.

Un nouvel environnement de concurrence forge le paysage portuaire. Cette tendance devrait se poursuivre dans un avenir rapproché. Les trajectoires de gouvernance qui sont proposées reconnaissent qu'un port ne peut être considéré de façon isolée. Les villes portuaires disposent d'atouts exceptionnels qui font l'envie de nombreuses administrations urbaines à l'international. Le port peut catalyser la croissance économique. La participation du secteur privé aux interventions gouvernementales de soutien aux activités portuaires d'un port offre un immense potentiel d'innovations. Dans ce contexte, les villes portuaires peuvent devenir des pôles dont le développement pourrait être créateur de richesse pour l'ensemble du globe.

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## **Chapitre 3**

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# **Integrating ‘triple P’ bottom line performance and the license to operate for ports: towards new partnerships between port cluster stakeholders**

*Michaël DOOMS*

*Assistant Professor*  
Solvay Business School  
Vrije Universiteit Brussel (VUB)  
Brussels – Belgium

## **Biography**

**Michaël Dooms** (*MSc Management Engineering, 2001; PhD, Applied Economics: Business and Technology, 2010, Solvay Business School, University of Brussels*) is affiliated as assistant professor with the Solvay Brussels School of Economics and Management at the University of Brussels (VUB). He is program director of the MSc in Management and the MSc in Bedrijfskunde.

At the VUB, he teaches courses in Management and Strategy, Organization Design & Change and is responsible for the internship program and the foreign trade mission. He won the 2011 Palgrave MacMillan MEL PhD Competition (4th edition) with his PhD Thesis. He is an associate member of PortEconomics.eu and a member of the Port Performance Research Network (PPRN), where he co-animates the port authority strategy group. His other research interests are in the fields of complex project evaluation (of large scale infrastructure projects), internationalisation strategies and corporate strategy. He teaches courses at the Institute of Transport and Maritime Management (ITMMA) in Antwerp as well as the

*Erasmus University Rotterdam, as coordinator of the port management 1&2 modules of the MEL programme.*

*He has worked as a project manager and researcher on several research and consulting projects, which need a multi-disciplinary (integration of technical, economic and environmental criteria) and multi-stakeholder (public and private sector, local communities) approach. In the field of strategic management and organizational development, he was closely involved in the development and implementation of a strategic plan for the Belgian rail infrastructure manager Infrabel (2006-2010). In the management of the University of Brussels, he was vice-chairman of the Board of Directors during 2005-2008. He is co-founder and director at €SPACE, a university spin-off company. From 2013 onwards, he leads the PORTOPIA project ([www.portopia.eu](http://www.portopia.eu)), a large EU-FP7 collaborative research project on port performance measurement.*

## Introduction

Port managing bodies are increasingly scrutinized by local community stakeholders on the generation of positive and negative impacts by the various port and industrial activities taking place within the areas they govern (Notteboom and Winkelmanns, 2002; Moglia and Sanguineri, 2003; Dooms et al, 2013). While port operations and development have been historically justified on the sole basis of positive socio-economic impacts such as direct and indirect employment, as well as contributions to gross added value and fiscal revenue for local and regional governments, environmental and spatial impacts have since the 1990s received an increasing weight in the societal debate on port operations and development (Haezendonck, 2007; Dooms, 2010)

From a local community perspective, improved knowledge and awareness on the existence of negative externalities (e.g. noise, traffic congestion, emissions, waste generation, visual intrusion, etc.) has led to an increasing amount of lawsuits and other legal procedures aimed at either reducing the amount of port activity in a region, or demands for a standstill on further port development based on environmental, spatial or mobility concerns. Examples of such blocked developments include flagship port projects in well established port clusters in Western Europe, such as the Deurganckdok project in the port of Antwerp, the Maasvlakte 2 project in Rotterdam and the Dibden Bay project in Southampton, which were substantially delayed (Deurgankdock, Maasvlakte 2) or not implemented at all (Dibden Bay). Furthermore, infrastructures aimed at improving port area connectivity outside of the port area are also increasingly under pressure on environmental and spatial grounds. Examples include rail and barge links (e.g. the envisaged barge connection for the port of Zeebrugge in Belgium), which in many cases explicitly aim to improve the modal split and thus result in a reduction of negative environmental externalities by increasing the use of alternatives to more polluting road transport.

All these negative experiences faced by port managing bodies within their core business (i.e. managing and developing infrastructure), have pushed these organizations towards adapting their (communication) strategies towards local community stakeholders (Parola et al, 2013; Satta et al., 2014), and adopting broader marketing strategies, including outreach to the local communities (Pando et al., 2005, Cahoon, 2007). Based on both literature and practical examples, three developments within port strategies stand out.

First, port planning has been reengineered towards a more stakeholder inclusive process, taking explicitly into account environmental, mobility and spatial impacts when designing and evaluating port development strategies (Moglia and Sanguineri, 2003; Dooms, 2010). Interest groups representing the local communities and environmental groups are now invited at the start of planning

processes so their concerns can be integrated within the societal decision process.

Second, many port authorities, in partnership with local governments and other selected stakeholders, have supported the creation of so-called 'port centers', i.e. permanent infrastructures serving as information stands and meeting places for both local community stakeholders, outside visitors from the broader region and foreign tourists. This development has even led to an international learning platform of port center representatives sharing best practices on how to engage local community stakeholders, e.g. the Port Center Network (PCN) managed through the IACP (International Association of Cities and Ports) (IACP, 2014).

Third, on the level of port performance measurement and disclosure, an increasing number of port managing bodies have recently shifted from reporting solely traffic, financial figures and in some cases employment creation on their websites and annual reports, to a broader exercise on sustainability reporting, with the objective of giving an objective account of sustainable port performance. Sustainability reporting entails a real focus on 'triple P' bottom line (TBL) performance, translating People, Profit and Planet (Elkington, 1997) into relevant indicators for port performance, and thus highlighting the role of the port cluster as a driver for sustainable development. Since 2010, examples (non-exhaustive) of port managing bodies publishing sustainability reports include Los Angeles, Antwerp, Hamburg, Valencia and Gothenburg.

However, at present, it is not clear whether the actual implementation of these strategies, in particular sustainability reporting, has really contributed to an increase of the more subjective notion or perception of 'societal support' by local communities for port activities. Therefore, in this chapter, we particularly focus on establishing the strategic link between on the one hand objective TBL performance and on the other hand the subjective or perceived element of the 'license to operate' (LTO) – sometimes also called social license to operate (SLO). By linking both dimensions into one framework, we will be able to identify four generic strategic positions of a port cluster towards local community stakeholders. We investigate both the practical implications of the implementation of the framework, as well as the conversion of the outcome in strategic recommendations.

The chapter is structured as follows. First, in section 2, we discuss recent tendencies in port performance measurement and how port performance management moves towards a more integrated assessment and disclosure of TBL performance. More particularly, we pay attention to how TBL performance is measured and disclosed, and which are the associated challenges for port managing bodies and their stakeholders. Second, in section 3, we discuss the concept of 'license to operate' (LTO) in the port context and how this dimension could be measured and disclosed. Both discussions will use currently used practices by leading port managing bodies, with a focus on Western Europe.

Third, in section 4, we introduce a framework under the form of a matrix linking both performance perspectives and explaining the various generic positions of a port cluster in the matrix. We also discuss some practical and methodological implications on the level of implementation of the framework. We conclude with research and managerial implications in section 5.

## *Towards 'triple P' bottom line performance management for port managing bodies*

Until the 1990s, port cluster performance disclosure on a yearly basis was merely restricted to annual traffic growth figures. Besides traffic figures, basic socio-economic indicators such as the creation of direct employment and contribution to the region or country's GDP were produced rather irregularly, mainly in connection to expansion studies and their socio-economic justification towards stakeholders. The calculation methods used for these impacts, as well as the extent to which employment and added value could be attributed to port activity, have been the subject of many debates during the last decades (Waters, 1977; Chang, 1978; Gripaios and Gripaios, 1995; Hall, 2004; Dooms et al, 2014). Societal support for port projects remained largely a matter of executing a Social Cost Benefit Analysis within a rather technocratic environment, in particular for the public authority financing the expansion project, and was mainly based on economic elements with as main parameter Social Net Present Value. Today, the SCBA technique for socio-economic project evaluation is still widely in use, but it has been complemented (1) by the integration of other quantifiable impacts in monetary terms (on the level of environmental, spatial and mobility impacts), (2) by compulsory Environmental Impact Assessments (EIA's) and, in some cases, (3) by stakeholder-based or also Eclectic Multi-Criteria Analysis (De Brucker et al, 2013). However, project SCBAs or other project evaluations are not really suited to consistently report on port performance, but have undoubtedly contributed to the refinement of calculation methods e.g. on specific socio-economic indicators.

Since the 1990s and the start of the corporatization process of many port managing bodies (Ng and Pallis, 2010), which has led to increasing (financial) autonomy and accountability (together with a retreat of governments concerning port investments), annual reporting has been driven increasingly by certified financial reporting, next to the market and traffic report. This evolution can be explained, *inter alia*, by (1) the legal obligation arising from the independent corporate status and (2) the increasing need for private financing by commercial banks to support infrastructure development. Hence, the main users of these annual reports remain shareholders (mainly government representatives in the board of directors) and investors. However, recent empirical research on the Port of Rotterdam (Satta et al., 2014) has shown that in terms of 'issues' treated and stakeholder groups targeted in annual reports, an increasing number of environmental issues related to local communities is mentioned in these

reports since 2009. Besides the rather traditional annual report, some port managing bodies have also started to produce so-called sustainability reports, treating a wider variety of indicators, showing the port cluster performance from different perspectives and from a multi-stakeholder angle, and even allowing stakeholders to compile their own tailor-made port sustainability report based on their interest through a dedicated website (e.g. Port of Antwerp).

From an external perspective, both the evolution of port managing bodies towards more entrepreneurial ‘cluster managers’ (Verhoeven, 2010) and increased pressure from various societal groups, support this evolution towards a multi-stakeholder perspective of performance disclosure. From an internal perspective, the increase of strategizing activities by port managing bodies (van der Lugt et al, 2013) and the associated need to monitor the performance of strategic initiatives, as well as the availability of more powerful ICT processes generating performance data in various fields, has increased the need and availability – at least from an internal perspective - of performance data and indicators.

However, at present, while there is a large amount of academic literature available on container port performance (e.g., Roll and Hayuth, 2003; Tongzon, 2001; Lin and Tseng, 2007; Wu et al, 2010), mostly based on terminal efficiency (Langenus and Dooms, 2014), little or no research (both broad approaches and specific case-studies) has been undertaken on the indicators that are actually used on the so-called internal ‘scorecards’ of ‘dashboards’ of the executive committees of port managing bodies. More particularly, it seems that commercial and political sensitivities, coupled to a general lack of a culture of transparent performance reporting, are influencing the limited disclosure of performance indicators from a multi-stakeholder perspective.

Furthermore, when cluster performance is considered (e.g. the CO2 footprint of the port cluster), the responsibility for this performance is mainly to be attributed to private companies executing the port operations, rather than the port managing body itself. The port managing body merely sets the conditions and regulations to operators generating the actual impacts, e.g. through concession schemes (for an overview of recent practices in the European context and the importance of the environmental dimension, see Notteboom et al, 2012). As a result, it could be argued that they remain quite defensive in terms of reporting total port cluster performance from a multi-stakeholder perspective. Also, the hybrid character of port managing bodies under a landlord regime, i.e. the challenge to combine public tasks and objectives with a commercial strategy in terms of attracting cargo in a highly competitive environment (Koppell, 2003; Van der Lugt et al, 2013), may provide a further explanation to the difficult stance that these organizations take towards public disclosure of performance data.

As a result, the access of the academic research community has been largely restricted to rather anecdotal evidence on which Key Performance Indicators

(KPIs) are monitored on the executive level in port managing bodies. E.g., the Port Authority of Rotterdam (PoR) mentions in its annual report and on its website the yearly CO<sub>2</sub> footprint evolution as the sole environmentally disclosed indicator (as modal split is not really considered as an environmental impact indicator). On the PoR website, under the heading where the port strategy and land use is discussed, an objective of 45% increase in spatial productivity by 2030 is mentioned, thereby suggesting a yearly monitoring of this indicator. Based on several interactions with senior management staff and an examination of the Annual Report 2013, we obtained the main following indicators that are measured on a corporate level (with some of them still under development), with most of them also reported in the Annual Report<sup>1</sup>, which is a quite unique feature among land-lord ports. In table 1, we list the most significant KPIs.

**Table 1: Selection of KPIs currently used by the Port of Rotterdam**

KPI	Remark(s)
Revenue per m <sup>2</sup>	Not in the annual report given commercially sensitive
Travelling time on the A15	Important access road to the port
Nautical Safety Index	
Safety and Environmental Index	
Port Authority CO <sub>2</sub> footprint	Organizational level, not the total cluster (although cluster performance reported on the website)
Infrastructure project realization (%)	
Modal Split containers	
Market Share	
% Transshipment containers	
HR reviews in the organization	
PoR International milestones	Measures the progress of projects aimed at international investments by the PoR
Profitability of project investments	

*Source: based on the Port of Rotterdam's Annual Report 2013 and interaction with senior managers (February 2014)*

At present, based on interactions with senior port managers, the PoR is also moving towards the creation of a comprehensive sustainability report, in line with other world ports (such as its main competitors, Antwerp and Hamburg).

Therefore, it is worthwhile to briefly discuss the difference between the PoR's 'integrated' annual report presented above (i.e. including more KPIs than merely financial figures and traffic) and the current practice of sustainability reports. In

<sup>1</sup> The 2013 PoR annual report shows 19 KPIs out of 34 in use; some are commercially sensitive (9), under development (5) or not applicable to an annual report (1) (Port of Rotterdam, 2014).

table 2, we summarize the perspectives and indicators offered by Antwerp and Gothenburg.

**Table 2: Selected indicators/categories taken from sustainability reports (Antwerp and Gothenburg)**

Perspective	Antwerp	Gothenburg
People* (Social**) (All indicators on Cluster level)	Characteristics of employment (fulltime, long-term); Local share of port employment in total employment	Port Authority level: Number of Employees
	Gender, Education level, Number of training hours	Gender, Turnover, Age, % of immigrant workers
	Absences (illness), Number of work accidents, Fatalities	Absences (illness), Occupational injuries, Fatalities
	Performance of organization of common transport for port workers; safe home-work travel indicator	Cluster level:  Number of direct/indirect employees in cluster
		Number of general public taken guided tours
		Number of external visitors
Planet* (Environment**) (7 KPIs)	Energy use per production unit Differentiated port dues performance Oil Calamities	Onshore power KPIs (7 KPIs) Differentiated port dues KPIs (7 KPIs) Immediate environment (7 KPIs), incl. complaints received
	Waste flows, Water use and quality, Emissions and air quality (CO2, SO2, NOX, PM10), Soil quality	Shipping Emissions (5 KPIs) and Climate and energy consumption (17 KPIs)
	Installed capacity renewable energy	
	Indicator on land use evolution for nature	
Prosperity* (Financial**) (8 KPIs)	Capacity (land use and availability, liquid bulk storage capacity) (4 KPIs)	Financial indicators (8 KPIs)
	Volumes (5 main traffic categories) and modal split	Volumes and market share (16 KPIs) incl. modal split
	Number of services and ship calls	Services development (7 KPIs)
	Direct and Indirect Gross Added Value	Production KPI (Maintenance)

	Direct and indirect employment, turnover and productivity	
	Investment volumes, including R&D	
	Number of AEO (Authorized Economic Operator) certificates	
	Number of illegal persons registered	

Source: Own summary based on Sustainability Reports 2012 from Port of Antwerp and Port of Gothenburg (\*As named in the Antwerp report; \*\* As named in the Gothenburg report)

Both the port authorities of Gothenburg (PoG) and Antwerp (PoA) have published multiple Sustainability Reports. In the case of the PoA it consists of a biannual exercise, with currently two reports available (2010 and 2012). In the case of the PoG, the report is published yearly, according to the Swedish law on government owned companies. Both reports show a substantial increase in performance indicators reported, towards a variety of stakeholders, in comparison to their annual reports. In the case of the PoA, the report is certified according to GRI standards<sup>2</sup>, including a so-called 'attestation'<sup>3</sup> of a large amount of indicators by an independent auditor as not all information sources originate from the port authority. While both reports provide a large amount of performance data in similar perspectives (although somewhat named differently), they differ quite substantially in terms of actual reported data and indicators, as well as the level on which performance data are reported.

First, certain similar performance indicators are assigned to different perspectives of the TBL. E.g., some employment related indicators are reported either in People (Gothenburg) or in Prosperity (Antwerp), or within both (Antwerp). Second, while the performance indicators of the PoA always refer to port cluster performance as a whole, the PoG also includes performance indicators relative to the own organization (in particular employment related indicators). Third, while People and Planet indicators seem to show overlap between both ports, the Prosperity/ Financial/Profit dimension shows a wide variety of indicators (market, services and volumes being the common category). Fourth, it might be debatable to include modal split under the prosperity category, given the clear environmental objectives attached to the increase of the use of alternative transport modes for hinterland transportation. Finally, some indicators are mentioned in both reports, but are not calculated, e.g. given the lack of stakeholder agreement on publication (e.g. % of

<sup>2</sup> The GRI (Global Reporting Initiative) is one of the most widely used standards/certificates for sustainability reporting. GRI is mainly developed and used for multinational firms, but recently other organizations have shown interest, as well as differentiated approaches towards specific industries (e.g. through sector supplements).

<sup>3</sup> Attestation meaning a somewhat lighter version of a true audit, i.e. data providers outside the port authority are interviewed by independent auditors to assess the quality of the data collected/reported. This is conform ISAE3000 standards for the attestation of non-financial information.

immigrant workers in the Antwerp port cluster), or the lack of data or high costs to obtain valid data (e.g. gross added value in Gothenburg). This is particularly valid for socio-economic indicators on the port cluster level, which has been confirmed in previous studies (Dooms et al., 2014). On the level of Planet indicators, we observe the wide diversity of environmental challenges that ports needs to tackle in function of their geographical location and economic profile, leading to different approaches towards certain KPIs such as emissions, waste and water quality. Furthermore, stakeholder cooperation is a key element to gain credibility and to increase the amount of data available: the case of the PoA highlights this as the Sustainability Report is a full fledged collaboration between multiple stakeholders (including the port user association Alfaport), with the proper inclusion of a large amount of other stakeholders through formal feedback groups.

The analysis of both reports reveals multiple challenges for port managing bodies and communities if sustainability reporting for ports is to reach a standard, including helping local community stakeholders understand the competitive position of their port cluster vis-à-vis other port clusters. More particularly towards a more generalized assessment of TBL performance (e.g. a type of TBL index), we observe a lack of standardization of definitions and calculation methods for the indicators, limiting the potential for meaningful comparison. One of the main future questions for academic research and practitioners in the field might be the development of a toolkit under the form of a weighted index, leading to a more standardized view of TBL performance across ports. Also in the light of industrial policy on the supranational level, such as the European Port Policy, this might improve the discussion basis between both industry and policy stakeholders on whether policy interventions are needed, and their subsequent monitoring<sup>4</sup>.

This promises to be a challenging task, as elements and stakeholder sensitivities on the local port level in terms of sustainability would need to be aligned with a more global approach between and across port communities. However, based on the common ground between both examined reports, we could suggest three areas where alignment might be sought, and which would provide a solid common base for a weighted index, reflecting objective TBL performance:

- People: Employment indicators and Health and Occupational Safety indicators and their evolution;
- Planet: Air quality and emission indicators
- Profit/Prosperity: Market, volumes and services indicators

As a main limitation, we could call for a further analysis, increasing the number of analyzed sustainability reports in the sample, to increase the validity of the above suggestion. However, as a GRI certified report and winner of several national

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<sup>4</sup> Towards this end, during the period 2013-2017, a European Commission funded R&D project (PORTOPIA) under the Framework Program 7 scheme is executed, with the participation of the port industry.

and international awards (inter alia, the World Ports and Trade Summit; Bronze Environment Award at IAPH, Best Belgian Sustainability Report), we believe that the Antwerp report, together with the Gothenburg report as a reference, provides a sound basis for an exploratory reflection as presented here.

## *Defining the 'License to Operate' for ports*

While TBL performance, if supported by GRI certification and attestations for non-financial reporting, could be considered as an objective measure for the contribution of a port cluster to sustainability, it does most probably not reflect the more subjective and perception based 'license to operate' (LTO) from local community stakeholders (sometimes also referred to as the 'Social License to Operate'). Here, an interesting parallel can be drawn with so-called user perception measurements of the user satisfaction of port services (Brooks et al., 2011; Brooks and Schellinck, 2013), where the actual (subjective) perception of the user of the quality level of the services offered by the port, could differ from objective measures (e.g., congestion levels, turnaround times, connectivity in terms of infrastructure characteristics and number of available services). In line with a more or less standardized measurement of user perceptions, which is not a common practice among ports<sup>5</sup>, we also observe a lack of interest in structured approaches to measure the strength of the more subjective notion of the LTO within the local community. In line with user perception measurement, it might involve costly exercises (surveys), with substantial methodological challenges in terms of defining an unbiased sample, contacting the sample, and guaranteeing the objectivity and independence of the research.

Furthermore, for user satisfaction, the diversity of economic activities needs to be taken into account as not all market segments define service quality in the same dimensions (or put a different weight on service dimensions). Accordingly, any development of a tool or methodology to measure local community perceptions on the LTO would probably entail similar conceptual and methodological challenges, given the diverse geographical locations of ports and their spatial relationship with local communities (e.g. ports located within or adjacent to densely populated cities versus coastal ports in less populated areas). Next to the definition of the 'local community' (e.g. permanent residents, or including also temporary visitors, tourists, leisure-seekers, non-port companies, etc.), a common understanding needs to be found on the actual concept of the LTO and its translation to the managing body of a port cluster.

A commonly used definition stems from the seminal work of Post et al. (2002): *"The legitimacy of the corporation as an institution, its 'license to operate' within*

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<sup>5</sup> With the exception of the American Association of Port Authorities' (AAPA) Costumer Service Initiative.

*society, depends not only on its success in wealth creation but also on its ability to meet the expectations of diverse constituents who contribute to its existence and success"*

This definition confirms the principle that while objective success in wealth creation (profit, or alternatively the triple P bottom line performance) provides the corporation legitimacy in society, a more subjective dimension of contribution to 'expectations from stakeholders' as a defining element of legitimacy is also present within the broader concept of the 'license to operate'. In other words, next to objective TBL performance, a measurement of the perception of the local community of the port managing body (or port cluster manager) as a responsible, accountable corporate citizen is needed. Given the influence of local communities on the (non-)granting of exploitation or expansion permits, substantial attention is required to this stakeholder group and the subjective perception of the LTO by this particular group.

Exploratory research performed by Deforche et al. (2013), commissioned by the PoA, has highlighted a number of elements, which play a role in shaping perceptions from a local community perspective:

- Transparency of the port cluster managing body
- (Quality of) communication of and with the port cluster managing body
- Commitment of the port cluster management body towards participation
- Local community experience of both positive and negative impacts of the port cluster

This so-called "experience study" was based on more than 20 interviews with stakeholder group representatives (local and regional governments, user associations, unions and various other interest groups) as well as focus group discussions with 50 randomly selected individual citizens (divided in subgroups of ca. 10 people). The overall objectives of the study were (1) to identify how local communities and individual citizens experience the port cluster (both positive and negative) and (2) to identify strategies and actions to increase participation from citizens. Furthermore, the report suggested a longlist of 64 indicators to measure citizen experience, in view of potential integration in future Sustainability Reports. Concrete proposals (not operationalized yet) can be categorized in two groups (Deforche et al., 2013), according to table 3.

**Table 3:** Suggestions for indicators measuring citizen's experience

<b>Group 1: Indicators on commitment and participation</b>
Number of opportunities for societal reflection
Investment in social/human capital for participation purposes
Public character and transparency of information on the port cluster activity
Reduction of distance / Increase of identification with the port cluster activities
<b>Group 2: Indicators related to impact experience</b>
Anticipation on citizen complaints and treatment of complaints
Actual experience of impacts by the local community

Source: Author interpretation and selection of Deforche et al.(2013)

While the first group mainly consists of leading indicators expressing resource commitments towards strengthening the LTO, the second group identifies a number of lagging indicators effectively evaluating the strength of the LTO, which are potentially better suited for measuring actual strength (in particular the number of complaints received/treated and the actual experience of the port cluster by the local community). Evidently, the above reflection is only the start of a research process on the identification, evaluation and implementation of these indicators on LTO strength. However, based on the results of the exploratory research conducted in the Antwerp case (Deforche et al., 2013), we were able to identify two guiding principles regarding the implementation of future, more standardized 'experience' studies in ports.

First, four main themes of experience by citizens were identified through the research by Deforche et. (2013): experience (or perceptions) in terms of (1) Economic importance and employment (2) Traffic generation and mobility impacts (3) Environmental impacts and (4) Governance complexity and transparency. While the first 3 domains are treated in most Sustainability Reports for port clusters, the last domain requires particular attention as the legitimacy of an organization (in this case even a set of organizations defining the port cluster, with a management body supporting it) also aligns with the clear identification and communication of responsibilities. From the research in the Antwerp case it emerged that a significant amount of citizens had difficulties identifying who or what was responsible for the management of the port cluster. As result, the transparency and clear communication of governance structures towards local communities is an important element to address (and potentially an element of perception to measure). These rather bottom-up conclusions on 'experience themes' are also in line with currently applied instruments on the social license to operate (SLO) in the mining industry (Boutilier and Thompson, 2011).

Second, when interacting with citizens, organized structures are preferred over unstructured or unorganized interactions (Deforche et al., 2013). This element is particularly important if future surveys or other data collection initiatives are

organized on the perception of the strength of the 'license to operate'. Most ports already benefit from either an ecosystem of local interest groups and/or a Port Center, which have structured interactions with citizens. As a consequence, implementation of these indicators might best be organized through existing structures, rather than creating new structures and/or ad-hoc approaches. Alternatively, if a port cluster is not endowed with a local system of citizen interest groups, it might be worth while, as a proactive stakeholder strategy, to facilitate the set-up of an ecosystem to start a structured dialogue with citizens.

## *Linking triple P bottom line performance to the license to operate*

Based on the previous sections, the legitimacy of a port cluster towards citizens can be expressed both in objective (TBL performance) and subjective (perceived LTO strength) terms. When considered separately in the context of the formulation of port strategy towards local citizens, each dimension is characterized by important limits. First, in order to be meaningful, both dimensions need to be analyzed in a relative perspective, i.e. benchmarked to relevant peer ports, in order to create learning opportunities. Here, multiple issues arise in terms of selecting the appropriate peer port group for a selected indicator (or dimension), standardization of calculation methods, and potentially large transaction costs in order to generate and share data in a secured environment. Second, and even more significant for the individual port level towards relationships with the local community, we suggest that an above average TBL performance might not be paired with a strong LTO. At least anecdotal evidence seems to suggest that some ports with above average TBL performance face ongoing and increasing difficulties to receive approval of critical planning documents safeguarding their long-term future. An example is the port of Antwerp where substantial difficulties remain on the level of the approval of main spatial planning documents, as well as discussions around the necessity and characteristics of future expansion plans as foreseen in these planning documents. Furthermore, important historical tensions between Left Bank and Right Bank stakeholders remain latently present (Dooms et al, 2013). Differently put, the hypothesis that a stronger TBL performance of a port cluster, as evidenced by e.g. positive evolutions of TBL indicators in a sustainability report, leads to a stronger LTO perception by the local community, might not hold under all circumstances.

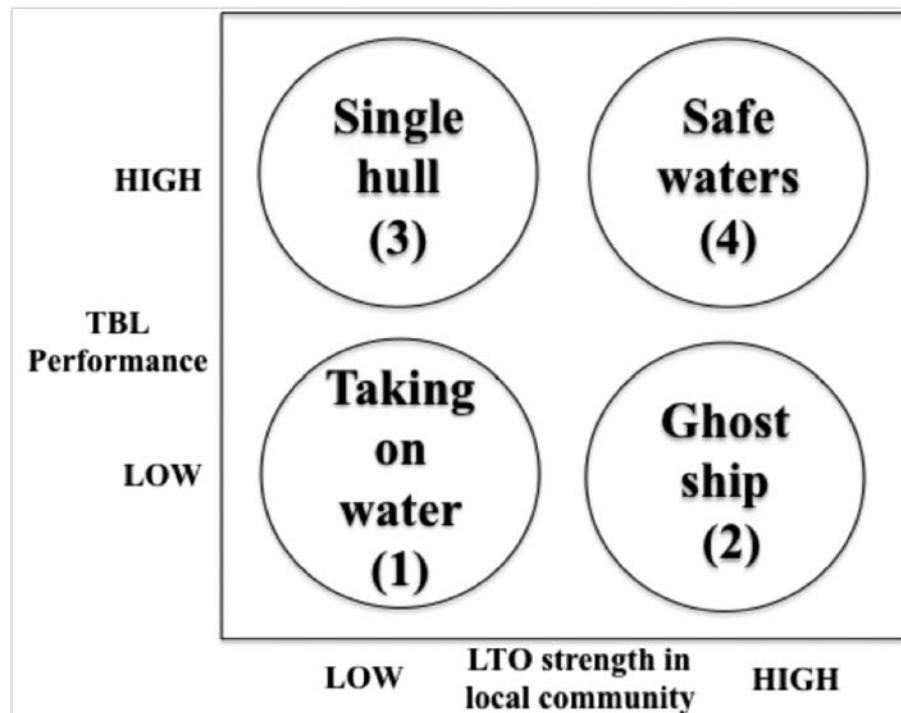
Therefore, we suggest a broader framework based on a 2 x 2 matrix showing diverse situations port managing bodies might face in terms of both TBL performance and LTO strength. Figure 1 shows the matrix and 4 potential quadrants of joint TBL/LTO strength combinations. Each quadrant is characterized by a different situation and managerial implications for the port managing body. Two situations arise where the TBL performance is in line with the LTO strength.

In quadrant 1, the port cluster is characterized by a relatively low TBL performance, as well as a weak LTO from a local community perspective. This could be considered as a high-risk situation, given that the objective performance measurement on the TBL (thus including economic performance) is weak. Coupled to a weak LTO, this implies that strategies consisting of infrastructural development in the shorter and longer term, necessary for the survival of the port cluster, might be confronted to fierce opposition in the local community. As a result, a real risk exists that TBL performance will further go down, continuing a negative spiral. This situation, in ship terms to be characterized like 'taking on water', warrants simultaneous attention towards improving TBL performance and the LTO. Strategically, and within a context of scarce resources, actions leading to short-term improvements of TBL performance might require more immediate attention from the port managing body than actions towards LTO strengthening, as these objective performance improvements might be used within e.g. communication strategies to increase the LTO (e.g. dialogues with citizens). At the same time, an investigation is needed into the functioning of crucial elements shaping the relationship with the local community, such as the transparency of governance structures of the port managing body and the presence of interaction and participation possibilities. Resources of the port managing body and economic actors in the port cluster might be reallocated to short-term actions rather than long-term investment projects in infrastructure, realizing concrete impacts on the TBL and investing in the development of structures and processes strengthening the relationships between local actors. As such, a dynamic development path towards a lower risk situation (quadrant 4) would rather run through quadrant 3 rather than moving first to quadrant 2.

Quadrant 2, here referred to as a 'ghost ship' situation, also represents a high-risk situation. Here, the port managing body carries a strong LTO (and a high level of trust), although not supported by superior TBL performance (and thus a low level of objective credibility in terms of being a 'sustainable actor'). In this situation, local community stakeholders, provided they are able to gather, process and analyze information on the TBL performance of better performing ports, could withdraw their societal support and bring the port to a quadrant 1 situation. Given the increasing disclosure of port sustainability reports, available on public websites, this situation represents a short-term risk for ports already engaged in sustainability reporting. While the current lack of standardization of Sustainability Reporting for ports could potentially 'protect' the port cluster to move towards quadrant 1, given the existence of a strong LTO (which implies well functioning governance and real dialogue structures), short-term actions, jointly defined with local community stakeholders, influencing TBL performance, or even the way TBL performance is defined, measured and communicated, need to be assessed. In this case, the port managing body might need to embark on the development of a strategy contributing to superior TBL performance in the long term. Based on an assessment of what matters most in terms of 'experience' by

local communities (People, Planet or Prosperity), choices might need to be made in the path towards superior TBL performance to achieve a strengthening of the LTO in line with the TBL performance in the shorter term.

**Figure 1:** The TBL performance/LTO strength matrix for port authorities



Quadrant 3 represents a medium-risk situation where the port cluster is characterized by superior TBL performance (or high objective credibility), but is lacking a strong LTO (low trust). Differently put, a 'single hull' ship. Here, a strategy needs to be designed and resources allocated to improve communication and dialogue towards local communities by investigating (1) the existence and adequate use of communication and dialogue channels (2) the transparency of the governance and participation structures from a local community viewpoint. A continuous situation of a weak LTO might lead to the absence of local community support for current and future infrastructure projects necessary to sustain the superior TBL performance. As a result, in the longer term, the port cluster could move towards the high-risk situation of 'Quadrant 1'. However, in this situation, the risk is assessed as medium as the superior TBL performance provides a cushion which is probably not likely to degenerate in the short term. It also appears that investments in the strengthening of the LTO (communication, governance and participation) might be less resource consuming and bound by uncertainty than more fundamental strategies of TBL improvement, which often require substantial

resource commitments and are highly uncertain in terms of impacts given that they do not uniquely fall under the port managing body's responsibility (e.g., developing hinterland strategies with other stakeholders, develop and implement an environmental strategy, foster employment creation) – explaining the higher risk profile of Quadrant 2.

Finally, quadrant 4, referred to as 'safe waters', shows a situation where both TBL performance and the LTO strength are on a high level. Here, port managing bodies are expected to closely monitor both elements and explore further learning opportunities and strategies to maintain and consolidate this favorable situation. A key element within this quadrant should be the continuous dedication of resources to monitor new and upcoming concerns in terms of experience elements by the local community, which are not covered by TBL performance dimensions (or sub-dimensions). Overall, we expect positions in the matrix to be highly dynamic, as research in the port industry has shown that stakeholder issues may vary substantially across time and space (Dooms, 2010).

In terms of the actual implementation of this framework, there are two main options explore.

First, in a situation where sustainability reports and LTO measurements would be harmonized and standardized, port clusters could be mapped within the matrix, allowing assessments of the strategic position of each individual port cluster compared to similar port clusters worldwide and/or competing port clusters within the same port range (in line with some existing concepts of user satisfaction measurements). Based on the strategic positions, learning networks between port managing bodies and port communities as a whole might be set up to transfer best practices between port communities, in particular when information might be shared on (non-commercial) strategies and actions proven to increase either TBL performance or LTO strength. Such an application would open potential avenues of research in terms of e.g. the impact of Port Centers and other features of structured communication and dialogue with the local community on the strength of the LTO, as well as the broader relationship between superior TBL performance and LTO strength.

Second, we believe that the framework could also be operationalized for individual port clusters. Such implementation would entail that both a credible, structural and yearly sustainable reporting process is present, as well as a yearly measurement of LTO strength. This would however require an initial investment or at least the presence of appropriate and structural participation and communication mechanisms towards the local community. In this kind of situation, an initial position in the matrix could be defined based on a stakeholder dialogue supported by initial performance measurements and ad-hoc meaningful benchmarks with other port clusters, including even the definition of a joint path to improve performance along both dimensions, providing additional learning

opportunities along the way (in terms of creating a joint understanding about which actions work within both performance perspectives). Hence, the individual implementation of the framework also offers opportunities for more intense and joint strategy making and monitoring of port managing bodies with other local actors.

## Conclusion and managerial recommendations

In this chapter, we started from the observation that local communities increasingly influence the long-term development potential of port clusters, in particular through their support for (or opposition against) infrastructure projects aimed at port capacity expansion. An important element of generating societal support is the showcasing of superior TBL performance to a variety of stakeholders. To that end, we have analyzed currently applied practices of sustainability reporting by well-known Western European ports. However, showcasing superior TBL performance in an objective manner (e.g. GRI certified, independent auditor attested), and objectively generating credibility, is not necessarily aligned with the rather subjective experience of local communities from the impacts that the port cluster generates, and which could be considered as the main driver of the real 'License To Operate' (LTO), a more subjective trust factor which facilitates current operations as well as future port development. Therefore, we also analyzed a recent 'experience' study executed in the port of Antwerp (Belgium), which provided insights on the perception (or experience) of port activities by the local communities. Based on the combination of both TBL and LTO dimensions in a matrix, we were able to distinguish 4 generic situations, which require different strategic responses from port managing bodies to sustain their operations and development. We presented this as exploratory research based on a grounded case-study approach, which requires substantial further conceptual and empirical development. Interactions with both port experts and researchers have led to following additional insights on the value, further development and application of the framework.

First, the application of the framework requires a strong autonomy and preferably local ownership or embeddedness of the port managing body. In larger countries with central government intervention and limited local autonomy of the port authority, distances of executive committees and decision-makers towards local communities might be too large to warrant attention to the local license to operate. Second, indicators within a Sustainability Report need close alignment and identification with stakeholder objectives. Experience studies on the LTO

could contribute to further improve TBL performance reporting, in particular on the alignment of such reporting with strategic objectives of the local community. Third, the definition of indicators underlying both dimensions warrants particular attention on the level of the separation between on the one hand objective, credible indicators on TBL performance and one the other hand more subjective perception indicators in the LTO. While indicators in TBL performance are widely available (but not standardized across port clusters), additional research is needed into the development of perception-based indicators underlying LTO strength. Fourth, to offer more insights into the four generic positions in the matrix, the potential pathways moving from one position to the other, and the managerial recommendations attached to them, we need more insights into the currently implemented strategic actions underlying improvements on both TBL performance and LTO strength. More particularly, we expect that strategic actions aimed at increasing TBL performance (increasing credibility) might be characterized by substantial stakeholder complexity and uncertainty (and thus resources expenditure), as opposed to actions strengthening the LTO (increasing trust). Especially in a situation of scarce resources and an unfavorable position in the matrix, further research is needed on this particular trade-off, and whether investing in longer term credibility (i.e. TBL performance) is more appropriate/effective than shorter term investments in trust (i.e. LTO strengthening by installing appropriate local community participation and governance mechanisms). Finally, in order to capture learning opportunities through meaningful comparisons, both TBL performance and LTO strength measurement could benefit from more standardization across port clusters and port regions.

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## **Chapitre 4**

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# **The City-Port Relationship: Its evolution, changing dynamics and challenges for port authorities**

*Franc J Pigna*

*Managing Director  
CRE, FRICS, CMC  
Florida USA*

## **Biography**

**Franc J Pigna** is the Managing Director of Aegir Port Property Advisers. Aegir is a pioneer, port property consultancy specialising in meeting the unique property challenges faced by ports and the maritime industry through practical, market driven, port property strategies using a port's largest asset – property – in more strategic ways.

Aegir is allied with London based Drewry Maritime Advisors, a globally recognised provider of commercial, economic, supply chain and technical consulting services to the international shipping, ports, related maritime industries. Together they bridge the property and maritime industries providing comprehensive analysis and advice to ports, their users and investors.

Pigna has been meeting property challenges worldwide on behalf of clients in the port, shipping and related logistics sectors and financial, investment and corporate real estate industries for over thirty years. He is a member of the Counselors of Real Estate in the US and is a Chartered Management Consultant and Fellow of the Royal Institution of Chartered Surveyors in the UK. Pigna is a frequent speaker at major trade conferences and has published articles on a range of subjects related to port properties, infrastructure port finance and Public Private Partnerships.

## Introduction

This chapter investigates the evolution of the city – port relationship, where it finds itself now and where it might be going. The city – port relationship is one that has gone through various phases ie, discovery, interdependency and spatial and strategic separation.

Due to a convergence of many factors such as the increasing globalisation, more intense competition for cargo throughput based on achieving ever higher economies of scale, a more challenging financing environment for much needed global infrastructure remediation and expansion, increasingly difficult financial positions of major cities and growing ecological constraints a re-assessment of the city – port relationship is being called for. Amongst other things, this is calling to question everything from the structure of port authorities to what the realistic expectations of their shareholders should be.

Navigating the road ahead will certainly be full of challenges for both cities and ports. It is also a road with many opportunities for both cities and ports, collectively and individually, if they reach an effective common ground together.

The responsibility of showing the way forward to transform the city – port relationship into a more productive one today rests primarily on the shoulders of ports. More strategically managing this relationship for ports is now critical; it is in fact one of the most important challenges ports in cities face today, if not the most important one.

### *Evolution of the city-port relationship*

'The first and simplest emotion which we discover in the human mind is curiosity' (Edmund Burke). In this regard, ports, or what would become ports, were motivated by man's curiosity and became launching pads to new frontiers. These land-sea interfaces and thereafter bridge points evolved into crossroads of cultures and eventual hubs of commerce, ensuring, largely, that they would eventually evolve as cities.

Most non-sessile (ie, mobile) animal species engage in exploration, especially man. From the times of the Phoenicians to today, man was by nature born to explore. Generally, exploration is searching for the discovery of information, resources or, in some cases, survival. Today, many believe space exploration is driven by man's penchant for both exploration and survival. What is the connection of all this with 'city-ports'? Ports originally, launching pads for exploration, increasingly became for many cultures necessary for growth and in fact survival.

Almost without fail, most ports in the Old and New Worlds started as mere link points inland to larger population centres. In Western Europe ports evolved as

coastal gateways to larger inland population areas while in North America ports became connections to land bridges from coast to coast. While in Asia, the evolution of primary population centres started at or near the coast with relatively little inland population centres developing and consequently low hinterland coverage, which is, for the most part, the case today.

Today most major coastal population centres, have become 'city – ports' of some magnitude. Over time, this prompted what once might have been the relevant question of which came first, the city or port. For a number of reasons this relationship is rapidly changing as ports increasingly are losing the historically central focal point their host cities and citizenry had for them. At this point, the question has become irrelevant; what is relevant is what Goss (1990) argued, which was, 'it serves no useful purpose to ask which functions came first or are the more important: they go together.' Ports in cities in the 21st Century have their work cut out for them to ensure that they will in fact, 'go together'.

As city-ports evolved, the separation between the city and port was indistinguishable from one another and co-dependent in most respects, with their relationship clearly being thoroughly symbiotic. Until the 19th Century, the port represented for the cities the nerve centre of all transport routes, which was anchored solidly in the city (Pinna 2007). The evolution of port cities briefly went from being defence fortresses in medieval times to centres of trade, warehousing and manufacturing. In the 1850's, port expansion started taking the port's boundaries beyond city boundaries but the relationship between the city and port remained very much an interdependent one. That is until the advent of containerisation in the 1960's.

In addition to containerisation, there are additional elements that are affecting the viability of ports in port-cities one of these elements is the intensified competition for cargo. In this regard the location of ports relative to the East West circumnavigation trade routes (Ducruet 2010) and the consolidation of the shipping and logistics companies globally (ie, shipping lines, freight forwarders, logistics agents, third party logistics companies, etc), will increasingly dictate which port facilities will be used to access relevant supply and logistics chains.

## *Separation of city - port interests*

Since the early 1970's, the relationship between ports and cities have experienced substantial changes and greater friction and divide; changes which have been closer to revolutionary than evolutionary (Hoyle and Hilling 1984). This has been primarily caused by advances in shipping technology, increasing demand for vast back up land required by modern terminals to process the required greater throughput and attain the needed velocity to meet financial thresholds and the need to be able to better access inland transport networks to attain a deeper reach into the hinterland.

There were other developments, which accelerated both the economic and spatial divide between cities and ports, resulting in this relationship increasingly becoming adversarial in many instances due to technological and managerial changes in global transportation (Hoyle, 1989).

One such development is the ever-increasing size of ships and the advances in ship technology to attain economies of scale across the board. These larger ships require greater depth alongside the quayside, deeper navigation channels and additional land at and near dock. Without this, they will not effectively be able to handle and process larger amounts of containerised cargo and offer better access to and from the port from inland transportation companies. This is pushing terminal development downstream to deeper water and more, less expensive, land, rendering the 'old' city docks functionally obsolete.

Most city-ports today are or will eventually reach a point of becoming land constrained as the city continues to grow around it. The advances in shipping and logistics technology and the eternal quest for economies of scale, also has a common demand element – land. Although technology can address this to a certain point, by being able to process more tonnage and containers from the same footprint, at some point additional land banks will be required. This and the aforementioned is resulting in many ports located in inland, urban areas becoming functionally obsolete and requiring their expansion further downstream towards deeper, open water.

Additionally, containerisation and the increasing automation of terminal operations has resulted in a decline in the overall complement of workers at ports and will continue to have an impact on the numbers and types of workers at terminal and port related facilities as well. This has significantly changed most ports from being centres of major direct employment to centres of high technology logistics distribution, where the direct employment numbers, no longer have the same community impact as they once did.

Another factor negatively affecting the city – port relationship was the relocation of port operations downstream, leaving behind large swathes of empty, blighted, rat infested heavy industrial urban land in city centres, negatively affecting the city – port relationship. In many cases, these blighted, industrial, waterfront areas remained abandoned eyesores for the cities for decades until relatively recently when the city's population growth, urbanisation and demand for additional commercial and retail space created viable markets for their re-development. Today examples of this can be seen Europe in such urban waterfront re-development projects as London's Canary Wharf and Docklands, Hamburg's HafenCity, Rotterdam's Kop van Zuid and Amsterdam's IJ oever. While in the Americas New York's South Street Seaport, Baltimore's Inner Harbor, Boston's Faneuil Hall, San Francisco's Embarcadero and Buenos Aires' Puerto Madero are prime examples of ex-port lands being redeveloped and re-incorporated into the urban fabric of their respective cities.

This disequilibrium between cities and ports has been occurring for some time now. Cities have been downplaying the role and position of ports in their urban landscape for decades. Back in 1977, James Bird stated, 'Port function is considered as disturbing the regularity of the "central place theory" (Bird 1977)'. This is a theory created by German geographer, Walter Christaller (Central Places in Southern Germany (1933)), that attempted to explain the number, size and location of human settlements within an urban system; essentially stating that settlements functioned as 'central places' providing services to surrounding places. Some of the main criticism surrounding the 'central place theory' though was that it was too static and did not well account for the diversified services and distribution networks of industrial and post-industrial areas . Although 'central place theory' is today not applicable in the modern world, this does strongly indicate that even decades ago the schism between city and port was becoming a major issue. We may now have arrived at a point worldwide where the city - port relationship has tilted away from the port as the challenges ports now face from their city hosts and its respective citizenry are outweighing the synergies between cities and ports, both real to some point but more importantly perceived ones.

Additionally, as cities grew in population, their commitments to their citizens in areas of education, safety, security, and social entitlement programmes, along with requisite infrastructure expansion and maintenance grew exponentially as well. This, coupled with cities worldwide typically not managing their finances in a disciplined fashion, has resulted in operating deficits and strains on city budgets far outpacing their ability to fund them. This and the increasing need for additional funds has led cities to aggressively increase their traditional sources of 'revenue' (ie, mainly through higher taxation), but also to seek new sources of revenue as well, for example from ports whose trustees or shareholders happen to be cities or their respective municipalities.

Decades ago, when most ports were structured to follow the operating model, their goals and objectives were, besides handling cargo, the creation of jobs and other direct contributions to economic and community development. With the landlord model being followed by most ports today (where they no longer operate ports but are their asset managers), ports are no longer directly involved in hiring large numbers of workers as technology has significantly reduced the relative complement of cargo handling staff at ports worldwide. This said cities and their government shareholder counterparts have not abandoned the use of ports as vehicles to execute their social and economic agendas. Now though port authority shareholders (eg, cities, municipalities) do this in a more indirect fashion by setting up non-port related initiatives under the guise of 'economic development' to be funded by ports. This while ports increasingly have had to become more financially self-reliant as their government shareholders' budgets can no longer afford to fund their capital requirements for port infrastructure expansion and modernisation.

Under this environment, cities and ports took decidedly divergent courses. While these divergent courses still prevail today, they are under significant pressure to change and some of the reasons for this follow herewith.

## *The argument for alternative use of port lands*

For cities with growing populations, the pursuit in the last few decades of increasing affordable housing stock, cleaner environments, job creation and creation of quality urban, especially waterfront, environments and expansion of the tax base has become paramount. Ports on the other hand increasingly face growing regional and international competition, further, expensive integration into the supply and logistics chains of their respective hinterlands and dealing with dynamically changing port technology and port operating structures. However, the most important challenge ports face is the growing threat of economic obsolescence.

Economic obsolescence is defined as 'the loss in value resulting from influences external to the property itself, which may be international, national, industry-based, or local in origin'. As it relates to ports and their shareholders, various external factors affecting potential economic returns and having a direct impact on the 'market value' of an asset or property (typically a port's largest asset class), can be alternative uses of the asset that will result in higher revenues and value for the shareholders. In the case of ports, an alternative use of the port land for the development of say, high-density residential, commercial, retail and other urban community uses.

Most ports located in cities were and are located in central, strategically located areas. Over the years, as cities expansion to the suburbs reached major constraints based on land, water and transport infrastructure shortages, along with physical constraints and changing demographics, the city's core became a more attractive development area for housing and consequently more densely populated. This type of development in the city has started to encroach in and around port areas in very significant ways. This encroachment in and near the port, along with the growth in cargo traffic at the port, has taxed existing transport infrastructure and created increased levels of traffic congestion and air, noise and light pollution levels.

Additionally, as surrounding land has been used for non-port related uses, ports are becoming land constrained, which has made them less efficient in processing cargo at or near the port, an issue that with the increasing size of ships, is becoming critical for ports.

There are a number of issues today making cities and their respective citizen's question whether a port use is the 'highest and best use' of what increasingly

are becoming very valuable city located port lands<sup>6</sup>. Some of the issues being juxtaposed by cities are the increasing spatial separation between port and city (resulting from increasing security requirements) and the negative impact on the environment, city transport infrastructure and traffic congestion resulting from a port use when compared with the potential for a wider tax base and increased tax revenues, more direct employment and an overall cleaner use than alternative commercial, residential and other uses might represent.

Some of the commonly discussed alternative uses cities contemplate for port lands are the re-development of the urban waterfront into urban residential, commercial, retail and touristic centres and community focal points. In this manner, cities would produce much needed additional housing stock, centres of employment, expansion of the tax base, new tax revenues from increased property values, new projects and tourism, undertake urban renewal of certain blighted areas and create catalyst for additional development. In short, cities on the surface seem to have a compelling case against the expansion and possibly the continuation of port use on valuable central city land.

There are of course numerous reasons that can counter weigh the aforementioned city arguments by a wide margin. Some of these are: the port may be a major transport node in a nationally critical supply and logistics chain to inland hinterlands; the port is of national strategic importance at its current location from an economic and defence standpoint; there are no ecologically acceptable alternative sites to duplicate the role and capacity of the current port (and this will probably be one of if not the most important reasons for the long term survival of city-ports); the 'real economic impact' that the port produces throughout its sphere of influence is far greater than a city might envisage; there is no funding available to undertake a greenfield port project; and the potential revenues and capital that could be unleashed from the port's assets for the port's shareholders may be larger than thought possible.

## *Ports as national strategic assets - the Australian example*

Notwithstanding the divide that has occurred between cities and ports, some national governments have stepped up to defend and protect ports and their land assets based on a wider set of national priorities beyond that of the city in question.

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<sup>6</sup>'In public appraisal and tax appraisal, that use of land which would be the most economically advantageous over a given period of time, while at the same time being legally, financially and physically possible.' The Complete Real Estate Encyclopedia by Denise L. Evans, JD & O. William Evans, JD. Copyright © 2007 by The McGraw-Hill Companies, Inc.

Notwithstanding the divide that has occurred between cities and ports, some national governments have stepped up to defend and protect ports and their land assets based on a wider set of national priorities beyond that of the city in question.

One example is the recent (2012) National Ports Strategy developed by Infrastructure Australia and the National Transport Commission (Australia) for Australia ports. The reason for developing such a strategy seems to have been twofold: 1. Australia firmly believing that ports and landside logistics chains are critical to Australian business competitiveness, economic growth and productivity and 2. The premise that Australian ports and related landside logistic chains face major challenges from growth in trade (Infrastructure Australia – National Ports Strategy 2011).

As a backdrop to the development of a national ports strategy one needs to understand that in Australia the urbanisation of major cities (most of which are port- cities), has grown at an exponential pace. Recently a report commissioned by Ports Australia, in partnership with the Western Australia Freight and Logistics Council and Ports WA, Leading Practice: Port & Supply Chain Protection, outlined steps that need to be taken to protect the nation's ports . The report states that Australia will pay a high price in lost productivity if development encroachment of lands accessing port areas is allowed. The report went on to state that the dwellings in the Central Business District near ports have increased fivefold in value since 1986, placing significant pressure on urban waterfront land for alternative uses to ports.

The port and supply chain report stated that to successfully protect key port facilities, freight nodes and infrastructure corridors the following needs to occur: identification and preservation of new port facilities and freight and infrastructure corridors and statutory protection of existing port facilities and freight nodes and infrastructure corridors from 'inappropriate' land uses, encroachment and conflicts with non-transport and logistics uses.

The report identified that there is a critical need for 'improved freight and industrial planning'. Ports Australia's Chief Executive, David Anderson, was quoted in an article in Transport and Logistics News, stating that the productivity and competitiveness of Australia's economy was highly dependent on its ability to reduce unit transport costs . In this vein he went on to further state, 'Our landside access corridors and our shipping channels are of equal importance in the overall performance of our freight networks and we seek a strong focus on the need to protect, maintain and develop these key elements of our supply chains.'

Australia is looking to rationalise its port and landside logistics assets in order to ensure that there will be adequate capacity through the reconciliation of all interested parties that are important to ports. In this manner Australia hopes to accomplish a

number of goals, such as: the more efficient delivery of Australian exports to market; facilitate removal of barriers to trade, reduce transaction costs, increase competition and provide important links to domestic and global value chains; and attract private sector investment into the national ports and logistics sectors.

Australia has also historically recognised its dependency on maritime trade and the importance of its ports as gateways to the world for its exports and imports. Consequently, it should be of no surprise, considering the aforementioned and the economic and social importance of its ports systems that Australia would take such an innovative, national and comprehensive approach to addressing its ports and related infrastructure challenges through, amongst other things, protecting its port assets as being of national strategic importance.

Some of the most important goals of the Australian National Port Strategy is the recognition of the importance of striking a balance between land planning, freight requirements and corridor preservation with societal and amenity needs. It is clearly stated in the document (*Infrastructure Australia – National Ports Strategy 2011*) that the freight community sees 'encroachment' as one of the largest challenges they face, a challenge that the Australian government is taking seriously. One of the many goals of the strategic plan is the careful reservation of transport corridors and 'relevant and required lands'. One of the most interesting aspects of the Australian National Ports Strategy is how the country seeks to reach the optimum balance between its ports, transport corridors, the public and private sectors and the needs of the various communities.

Another goal Australia is looking to achieve is the protection of port and related and required lands, as evidenced by a number of action items. As it relates to ports and their respective land holdings, some of the action items contained in the strategic plan include: the identification of relevant maritime spaces ('to be treated as part of the relevant ports'); identification of landside access routes to be designated as national freight corridors; identification of each metropolitan area's requisite inland intermodal terminals and related warehousing space; and the identification of any national interests relative to port from a national defence and security purpose.

Unfortunately, this holistic approach at addressing the myriad and sundry challenges faced by ports and cities, especially at a national level, is not a widespread undertaking by the shareholders of most city ports worldwide – yet. However, the time is nearing when there will be little, if any, choice but to undertake this challenge in a similar, if not parallel manner as it has by Australia. The convergence of increasing cargo throughput at most strategically located ports, the lack of adequate public sector funding for port modernisation and expansion and the major ecological constraints existing for the development of new ports in greenfield sites will dictate the continued use of existing port facilities, but in infinitely more efficient ways.

## *Motivation for the city – port reconciliation*

There are also a number of developments currently occurring which could be catalysts to bringing the city and port into closer co-operation and possibly into a renewed partnership. The burden for making this happen though will rest predominantly on the shoulders of ports.

Notwithstanding the worldwide 'Great Recession' at the end of the first decade of the 21st Century, the outlook for the global Gross Domestic Product and international trade in the next decades still remains positive. Mature economies will grow on average from 2013 to 2025 by 1.4 percent per annum and emerging market and developing economies will grow at 3.2 percent per annum, respectively.

In 2012, according to the World Bank, trade, as a percentage of global Gross Domestic Product, was approximately 60.58 percent; this is expected to continue to grow. It is also generally accepted that more than 90 percent of global trade is carried over water. Therefore, the need for expanded and modernised port facilities will continue to grow, albeit under a very challenging financing environment. This is and will continue to result in the rationalisation of port assets and facilities and a consolidation of gateways. All of this will result in more intense competition between gateway ports and supply chains for cargo throughput and will require a concerted joint effort between ports and cities to remain competitive and capture market share and all of the economic and logistical benefits this represents for cities and their respective regions.

Cities, municipalities and other government entities that are shareholders of port authorities were once banking the infrastructure funding for ports. For the most part these were poorly veiled government subsidies given under the premise of 'economic development' and job creation. This has now dramatically changed with the typical budget deficits that these government entities are now running. Instead of funding ports, they have now become demanding shareholders. As such, these government shareholders are now looking for ports to fund various 'economic development' initiatives ie, the ongoing and supported programme by policy makers and communities to promote help and make better a general level of health, economy, security and business in a community or region - usually requiring public funding, subsidies and collaboration between government and private sector entities.

In many cases, municipalities have manoeuvred 'economic development' projects above the 'bottom line' of the port's income statement. This is highly counterproductive for ports and their financial performance as it clouds both management's and the industry's ability to gauge the true financial performance of the port authority. At some point, the shareholders of the port will need to acknowledge this and make changes to facilitate and enhance senior management's ability to perform better financially. After all, port authorities

operating in a more transparent manner and better performing by increasing their revenues and consequent dividends to their shareholders will afford the shareholders more funds to undertake any initiative they seem fit. However, this will more likely happen if the funds are distributed from below the bottom line.

## *Evolution of the port authority structure*

These changes are already occurring at major gateway ports through the corporatisation of the port authority. Essentially, this requires changing the structure of the port authorities' statutes, which will allow it to operate as a 'for profit' entity by, amongst other things, updating their core business mission for 21st Century realities. It also de-politicises the port authority, allowing it to concentrate on its core business through such changes as a board made up of experienced business individuals (rather than political appointees).

The Port of Rotterdam is a prime example of a port that successfully was 'corporatized' and whose financial and operating performance benchmarks significantly increased afterwards.

Based on the massive need for infrastructure investment worldwide and in ports more specifically, along with most governments' inability fund needed infrastructure investment properly, the corporatisation of port authorities will become more prevalent in the industry. This in turn may very well lead to the eventual privatisation of many port authorities, as has been the case with many port authorities in Australia recently (Pigna 2014).

In the long run cities will have to come to the realisation that their investment in ports will need to be managed differently than it has been if the port authority is to compete and generate the maximum revenues possible. To accomplish this several things will need to take place. First, the recognition by cities that ports, most now following the port landlord operating model, have as main sources of revenues a combination of fixed and variable rents (ie, property based rent and cargo throughput based rent, respectively). Therefore, to succeed as a landlord the port authority must focus on producing the maximum amount of revenues and enhance the value of the port, through its major asset – property. To accomplish this it must facilitate and promote its tenants and the entire port-centric business community's ability to attract and handle greater cargo throughput. In this manner, with more profitable tenants and greater cargo throughput the port authority will be able to generate more property based variable and fixed rents, respectively. Secondly, the port authority will need to operate under a heightened sense of commercial transparency and under a structure facilitating it to act as an entity 'for profit', including their meeting with financial performance thresholds such as return on asset, return on investment and others.

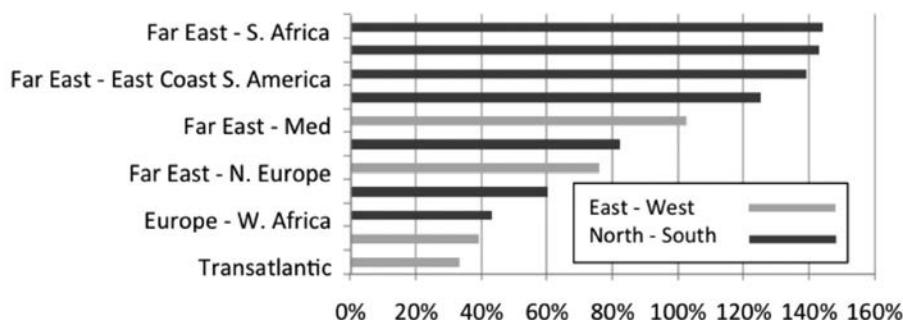
Third, ports are operating under increasingly global economy and under an intense competitive environment, where competition is no longer between countries or regions but between global cities and supply chains. To compete in this environment ports will need strong city partners.

## *Market and industry challenges for city-ports*

In addition to the challenges and conflicts currently impacting the relationship between many cities and ports, there are a number of other challenges that are market and industry based. One of these is the increasing size of container ships and the impact this will have on ports and their respective gateway status and supply chains.

In the mid 1990's the largest container ship was the Regina Maersk at 7,400 teu's (twenty-foot equivalent units). Today we have the Maersk Triple E class at approximately 18,000 teu. By 2018, carriers may have in their fleet 22,000-teu size ships. The following table shows the substantial rate of growth in the size of ships from 2006 to 2013 in the major trade routes.

**Figure 1: Increase in average container ship size by trade route, 2006-2013**



Source: Drewry Maritime Advisors

As it relates to the scope of this chapter, the focal point of ultra large container ships, and in fact any of the other larger ship type coming on stream, is how their business models will impact the ports industry. For these ships to be maximally productive they need to be constantly operational as their business model is based on achieving major economies of scale. To accomplish this they need to make as few ports-of-call as possible. These ports will need to have the infrastructure in place to be able to process large numbers of containers, not only at and near dock, but also well into the hinterland. This will require extensive and costly infrastructure to accomplish this along with large land banks. Ports located in cities are, for the most part, land constrained. To obtain the necessary land banks now required to process the type of cargo throughput the larger ships

will produce will require a well-planned logistics corridor strategy incorporating connections between the port and inland container freight stations, distribution centre and other port related facilities. One of the key elements will be to remove any non-cargo throughput related activity off port and inland into less expensive, more abundant land banks.

Another development resulting from large ships will be further consolidation of and bigger alliances in shipping. The following graph shows the relationship between the size of ships, shipping alliances and port calls. The main objective of this consolidation is to achieve significant reduction in costs by optimising assets between the major shipping routes (ie, Asia/Europe, Asia/US and Europe/US). Recently, Maersk announced the establishment of the '2M' alliance between them and MSC, following the failed 3P alliance. According to Drewry analysis, 2M already exceeds European Union consortium regulations by exceeding the allowable threshold of 30 percent by two percentage points. Drewry believe that although 2M will be the largest alliance in the Europe/Asia route, the EU will allow it as it will significantly reduce costs.

### Bigger ships and bigger alliances

No reduction in the list of ports called at, but greater peaks

- ▶ Typically the same number of ports called at per loop, but less frequently
- ▶ Fewer port calls by bigger ships = greater peaks and troughs at terminals (shipside and landside)



Source: Drewry Maritime Advisors

As it relates to ports, the ramifications of this carrier consolidation and increasing ship size are significant. Some of the quantifiable results we are now seeing of this are fewer vessels at sea. In the first half of 2014 the industry experienced its first decline in number of vessels in two decades. According to Drewry forecasts, an increase of six percent per annum in the size of the global fleet just through the increase in the average size of ships will occur, along with a further concentration of volume at fewer ports with less frequent service.

There is no question that the environment ports operate in will become even more competitive. Looking at this from the shipper's and shipping lines' side one needs to realise that for them, it is all about delivering the fastest, cheapest and deepest reach into the hinterland for their clients. Ports fully understand this; most cities do not. It therefore is in the future best interests of ports to ensure that their host cities are educated on the ramification these challenges represent to their respective communities, as the most effective way ports will be able to compete will be with the support of and in partnership with their host city.

The port's industry for decades was in state of slow evolution. In the 21st Century, this has accelerated to one of revolution. In this dynamic state of change there are going to be winners and losers. The relationship between a city and a port remaining relatively static can no longer be either assumed or taken for granted by ports. To do this simply places the port's competitiveness and viability at an undue disadvantage.

## *The road ahead*

The road ahead holds many areas of opportunities for city - port partnerships that will position themselves to capture them.

A recent Boston Consulting Group study (The Shifting Economics of Global Manufacturing: how cost competitiveness is changing worldwide – 2014) stated that low cost manufacturing centre perceptions are out of date. In this study BCG concluded that China, Brazil, Russia and the Czech Republic are no longer less expensive manufacturing centres than the United States; that China's manufacturing costs are now running about six percent greater than those in Mexico; and Mexican labour is approximately 13 percent less expensive, adjusted for productivity, than China's.

The study states that most economies in their manufacturing index fall into four distinct patterns of change: under pressure, losing ground, holding steady and rising global stars. The rising stars are ones with improved competitiveness compared to others based on moderate growth, sustained productivity gains, stable exchange rates and energy cost savings. From over twenty countries analysed as manufacturing centres there were only two rising stars: Mexico and the United States. An indicator of Mexico's rising manufacturing comparative advantage is its automotive sector, where this year it surpassed Brazil as the largest carmaker in Latin America. Does the shifting economics in global manufacturing present both opportunities and threats supply chains and ports? Without question, especially in the Americas.

Issues like changing manufacturing centres, the widening of the Panama Canal, shifting manufacturing in Asia, making the Suez route more viable, and other factors are certainly going to impact the decline, growth and establishment of

new supply and logistics chains and represent opportunity for some ports and major threats to others. This all raises a multitude of critical questions and issues, which need to be addressed, such as: port authorities revamping core business missions and being restructured in order to operate in a more transparent, efficient and profitable manner; ports needing to take a more regional leadership approach throughout their respective supply and logistics corridors in order to make them all more competitive and attractive to shippers and shipping lines; and ports needing to make further commitments to become exemplary corporate citizens.

## Conclusions

The relationship between cities and ports over time could easily be described as one having gone through the phases of discovery, marriage and divorce. The critical question now, for both cities and ports, is whether they will enter a new phase of 'reconciliation'.

Ports today are under attack from a multitude of sectors ranging from increasing globalisation and competition between supply chains to a very challenging deficit of capital funding for much needed infrastructure investment worldwide. Cities need to let ports better compete in the marketplace and become more self-sufficient financially. This is a matter of mutual need, as cities can no longer fund port capital requirements and increasingly will need dividends from ports to fund the ongoing deficits in their budgets.

Ports will also need to leverage off their 'nexus' capabilities to become more proactive leaders throughout their respective supply chains and logistics corridors, adding a significant layer of relevancy to their role locally.

Ports will need to embrace the environment even more robustly than they have as leaders and innovators in this regard, as environmental constraints are an ally to a port's current location.

Finally, to survive, ports will need to take the lead in educating their city partners in the challenges they face individually and collectively in the dynamic global economy both live in and prove that by working closer together in partnership the potential for achieving their respective goals, individually and collectively exponentially increases.

Ports need to be infinitely more strategic in the manner they manage the port – city relationship. This is the 'call to action' for city ports today.

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## **Chapitre 5**

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# **CLP, EME, ACC : Pour une reconsidération de la gouvernance ville-port**

*Yann ALIX*

Délégué Général

Fondation Sefacil

Le Havre - France

*Brigitte DAUDET*

Enseignante-chercheure

Ecole de Management de Normandie

Le Havre - France

## **Biographies**

Depuis novembre 2010, **Yann Alix** occupe le poste de Délégué Général de la Fondation SEFACIL, laboratoire d'idées prospectives sur les stratégies maritime, portuaire et logistique. Il a initié et dirige la collection *Les Océanides de la fondation SEFACIL*. **Les corridors de transport** (2012) et **La logistique et le transport des vracs** (2013) sont disponibles gratuitement sur [www.sefacil.com](http://www.sefacil.com).

Yann Alix enseigne dans plusieurs universités et écoles de commerce en France et à l'étranger. Titulaire d'un PhD de Concordia University (1999) et d'un doctorat en géographie des transports de l'Université de Caen en France, Yann Alix développe des analyses opérationnelles sur les stratégies managériales des opérateurs maritimes et portuaires internationaux. Il conseille plusieurs directions générales d'autorités portuaires subsahariennes.

**Brigitte Daudet** is an expert on Land Issues and Processes in Urban Management. She holds a postgraduate degree from the University of Caen Lower Normandy, and was a lecturer at the University of Caen Lower Normandy (MRSN, C RESO). After a career in consulting firms, she was appointed as the Head of Urban Policy at Luneville, and was later the Director of Large Projects for the Urban Community of Troyes, in charge of managing urban renewal projects.

She joined EM Normandie in 2007. She has lectures in Territory Development Management and has conducted seminars on the Management of Large Projects. She created in 2009 professional conferences in Caen on territorial issues. Her research is both on Urban Management and Territorial Development issues. She is currently working on the research methodology to apply to the management of relationships between cities and their economic environment. (with the AIVP : International Association of Port-Cities, with AURH : Planning agency of the Le Havre area, with FNAU : National federation of agencies planning, with Sefacil Fondation.

## Note :

Cette contribution est une version actualisée des travaux suivants des deux auteurs :

2014 - West & Central Africa Port-City: Not waiting until 2050 to turn governance into practice. *International Conference Urban Future-Squaring Circle: Europe, China and the World in 2050*. November, 10th & 11th, Lisbon, Portugal.

2013 - De l'héritage des relations ville-port... aux enjeux de gouverner des espaces métropolitains et des corridors logistico-portuaires pour le « bien-vivre » d'acteurs-citoyens. *Revue PortusPlus N°3*. RETE Asociación para la colaboración entre Puertos y Ciudades. 18p.

2012 - Gouvernance des territoires ville-port : empreintes locales, concurrences régionales et enjeux globaux. *Organisation et territoires*. Volume 21, numéro 2 et 3. 12p.

2012 - Quelle(s) gouvernance(s) portuaire(s) sur l'Axe Seine pour survivre dans une industrie oligopolistique des transports?" *Congrès ASLOG 2012 – Logistique et territoires*. 27 et 28 Novembre 2012. Le Havre – France.

2011 - Les corridors maritimes et les villes portuaires : mégatendances, problématiques et solutions applicables. *Rencontre internationale de Québec : définir la relation ville-port de demain.* 10 au 12 Avril 2011. Québec – Canada.

2010 - Grands projets urbains et portuaires : pour une reconsideration des conciliations, concertations et confrontations. *12th International Conference Cities and Ports.* 15/19 Novembre 2010. Buenos-Aires & Rosario. Argentina.

## Introduction

Echelles de temps, échelles de valeurs, échelles d'intérêts, échelles d'espace : la problématique qui ne cesse de se complexifier est bien la question de l'échelle à laquelle il convient désormais de considérer la relation entre une ville et son port, entre des terminaux et leur environnement métropolitain.

### **La conjugaison des échelles est impossible**

Le temps de l'infrastructure est trop souvent incompatible avec le temps du mandat politique. La dilution de la valeur logistique sur une chaîne «déterritorialisée» est trop souvent incompatible avec l'échelle du territoire administratif. L'échelle de la décision sur un grand projet infrastructurel structurant est trop souvent incompatible avec l'échelle de temps du riverain payeur de taxes. L'échelle du retour sur investissement d'une concession portuaire est trop souvent incompatible avec l'échelle de l'employabilité locale.

Tel que mis en perspective par les spécialistes académiques des trois premiers chapitres, aujourd'hui et plus encore demain, la gouvernance ville-port doit se réinventer dans des environnements sociétaux en mouvance perpétuelle.

### **L'universalité d'une approche-type est aussi impossible**

A Los Angeles-Long Beach, la gouvernance ville-port affiche une forme de maturité pragmatique quand il s'agit de déployer le corridor ferroviaire de l'Alameda dès la fin des années 1980. A Rotterdam ces dernières années, l'imbrication des destinées portuaires et urbaines a définitivement intégré les riverains dans les desseins d'une gouvernance partagée. A Libreville, les aménagements urbains sur le territoire foncier du port démontrent que la gouvernance ville-port reste un concept très flou. A Shanghai, les terminaux conteneurisés se désolidarisent de la mégalopole en modifiant de manière irréversible l'environnement naturel. Aux Samoa, les populations s'interrogent sur leur avenir proche alors que le port et la ville sont menacés par la montée prévisible des eaux.

La présente contribution cherche à considérer comment des Espaces Métropolitains Elargis (EME), des Corridors Logistico-Portuaires (CLP) et des Acteurs-Consommateurs-Citoyens (ACC) sont les trois piliers d'une gouvernance nécessairement protéiforme pour être en phase avec la rapidité des mutations économiques, sociétales et environnementales. Une première partie vise à contextualiser le déploiement des trois acronymes dans les environnements contemporains dans lesquels s'inscrit le binôme ville-port. Une deuxième partie tend à démontrer par l'exemple combien les actuelles interactions dynamiques entre EME, CLP et ACC doivent constituer les fondements de la gouvernance ville-port de demain. Une dernière partie ouvre la discussion sur l'aptitude à gouverner et rendre gouvernable. Une réflexion pose la question de la légitimité et de la représentativité pour gouverner. L'adaptabilité et l'efficacité à gouverner apparaissent en conclusion pour soulever le problème autant sémantique que pragmatique, opérationnel ou politique des futurs contours d'une gouvernance nécessairement participative.

## *Des Espaces Métropolitains Elargis, des Corridors Logistico-Portuaires et... des Acteurs-Consommateurs-Citoyens*

### **Quelques constantes peuvent constituer finalement le point de départ d'un consensus**

En premier lieu, les humains ne cessent d'être toujours plus urbains pour ne pas dire métropolitains. 2008 marque un tournant de l'Humanité puisque le nombre d'urbains dépasse le nombre de ruraux à l'échelle planétaire. Que l'on soit dans les pays les plus développés ou dans les pays les moins avancés, l'investissement des façades littorales ou fluvio-maritimes est un fait avéré, avec toute la déclinaison possible de conséquences que l'on peut imaginer. Il y déjà plus de 100 villes millionnaires dans la seule République de Chine Populaire et les processus de métropolisation littorale continuent de s'accélérer en Asie, dans le sous-continent indien et en Amérique latine. Seule l'Afrique subsaharienne reste faiblement urbanisée aujourd'hui mais un cinquième de la population urbaine mondiale de 2050 sera africaine... et majoritairement littorale !

Ensuite, 80% des échanges planétaires se réalisent par voies maritimes et donc, mécaniquement, empruntent des ports encore majoritairement situés au sein d'espaces métropolitains. Le triptyque *avant-pays maritime – port – arrière-pays terrestre* du géographe maritimiste français André Vigarié ne cesse de se confirmer avec la croissance des flux manutentionnés à l'échelle planétaire. Le cap symbolique des 10 milliards de tonnes métriques doit être franchi en 2014 ou en 2015. Les villes portuaires demeurent des pivots de la mondialisation des échanges. Hong-Kong, Singapour, Dalian, Hambourg, Rotterdam, la quasi-totalité

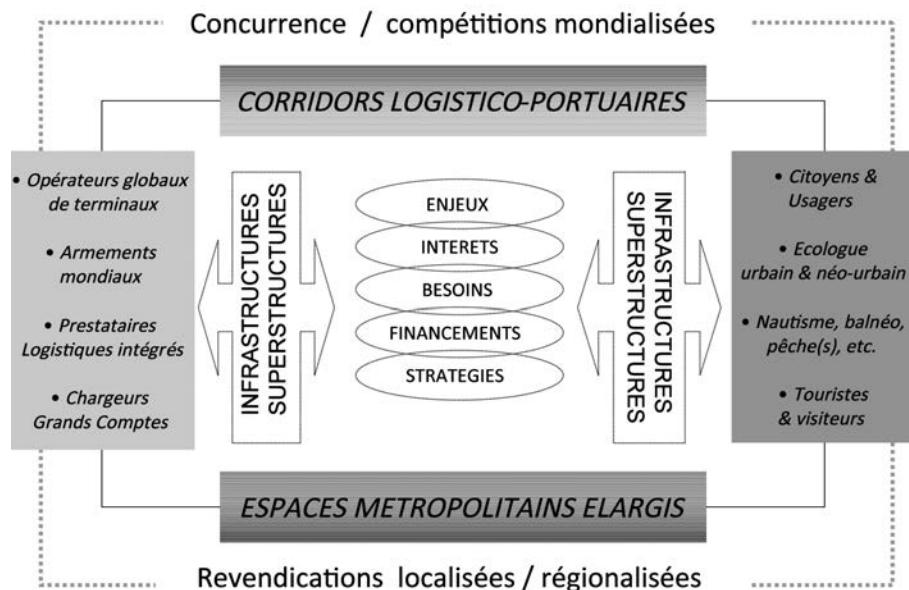
des villes portuaires subsahariennes, les grandes villes du pourtour méditerranéen, Sydney, Buenos-Aires, Valparaiso, Kingston, Vancouver, Dubaï, Djibouti; toutes se nourrissent de manière indéniable des activités commerciales et stratégiques de leurs terminaux portuaires. Ces mêmes villes portuaires, au-delà de symboliser des points de passage de toutes les natures de marchandises, s'imposent tout autant comme des centres de production, de transformation et de stockage des marchandises. Zones industrialo-portuaires, centres logistiques ou simples entrepôts façonnent les paysages de la ville-portuaire.

Ensuite encore, la compétitivité et l'attractivité des villes portuaires mondiales s'évaluent autant par ses potentialités locales que par ses connectivités aux corridors multimodaux structurés pour mailler des territoires d'envergure continentale, voire transcontinentale. La ville et le port d'Anvers sont investisseurs logistiques à Chongqing, capitale économique de la Chine centrale (située sur le *Upper Yang-Tse*). Le port de Dakar est partie prenante dans des entrepôts stratégiques situés à la confluence des territoires sénégalais et maliens. Les connectivités ferroviaires sur le centre névralgique de Chicago sont au cœur de toutes les attentions logistiques des communautés portuaires de Vancouver, de Los Angeles, de Montréal ou de New-York.

Enfin, à des niveaux de maturité très différents selon les continents, l'expression de la revendication citoyenne n'a jamais été aussi manifeste et audible dans l'histoire ville-port. L'habitant de la ville portuaire s'exprime, s'organise, se ligue pour que ses propres aspirations soient prises en compte dans les stratégies de développement de la ville, du port ou des deux. Internet et les réseaux sociaux bouleversent les rapports de force et les groupes d'intérêts de la société civile prennent une place prépondérante dans les destinées urbano-portuaire modernes. Acteur-consommateur-citoyen : l'individu est une partie prenante à part entière aujourd'hui.

L'interpénétration des intérêts particuliers et collectifs de toutes ces parties prenantes dans une forme aboutie de gouvernance est le cœur du défi (figure 1).

**Figure 1. L'expression citoyenne dans les développements de la métropole portuaire : laboratoire de consensus “glocaux”**



Source : Yann Alix & Brigitte Daudet, 2012

La pondération de la représentativité des parties prenantes (publiques, privées, collectives, individuelles, civiles) dans une gouvernance unanimement accepté peut relever de l'utopie (Figure 2). L'ensemble des mécanismes ouverts pour que soit exprimée la voix du plus grand nombre trouve une certaine limite quand est venu le temps de classer et de hiérarchiser toutes les formes de revendications, de contestations et de propositions.

Dans une gouvernance participative, pour ne pas dire « supra-démocratique », l'arbitrage des consensus est au cœur de la problématique dans les choix finaux retenus. Le design du projet final s'en trouve généralement transformé ; parfois à la marge, parfois en profondeur. La souveraineté d'un développement portuaire ou urbain peut aller jusqu'à être remise en cause par des parties prenantes individuelles ou collectives. Recours, dépôts de plaintes, demande de referendum sont autant de processus mobilisés pour que la voix des plus petites parties prenantes soit entendue par les promoteurs ou « grands décideurs ».

**Figure 2.** Expression et représentativité des parties prenantes au cœur du processus d'une gouvernance participative renouvelée

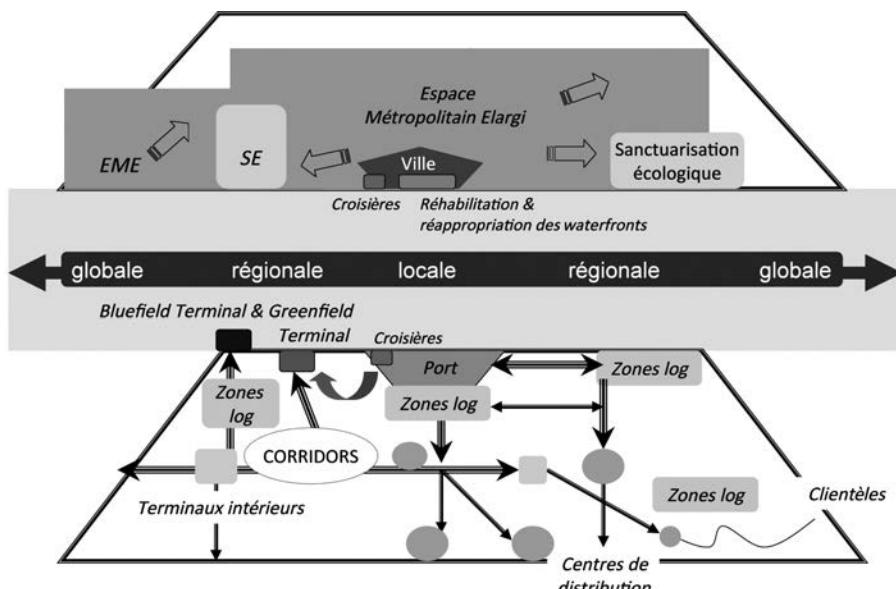


Source : Yann Alix & Brigitte Daudet, 2012

La problématique d'une gouvernance en mode « ouvert » place ces limites de l'expression individuelle et collective au cœur d'une nouvelle méthodologie, innovante et adaptée aux changements actuelles de notre société. Les outillages académiques et universitaires pour répondre à ces défis de méthode exigent de l'innovation et de la créativité. L'accumulation des expériences et l'analyse des retours d'expériences restent les ferment de l'innovation en matière de gouvernance. Tenter et tester des innovations en matière de gouvernance n'est pas chose aisée tant les inerties et les risques se télescopent pour (et par) les parties prenantes.

La délimitation territoriale et fonctionnelle d'une autorité supérieure disposant des pouvoirs régaliens et financiers pour l'arbitrage, le consensus et la décision relève une fois encore d'une gouvernance qui reste à inventer (figure 3). Les EME et les CLP s'étalement sur des territoires aux multiples gouvernances publiques dont toutes les strates cherchent à pérenniser l'avenir économique et social des espaces administrés. Les élaborations stratégiques et les projections prospectives de ces territoires sont très rarement multi scalaires et ne trouvent généralement pas de consensus général.

**Figure 3.** Interpénétration des échelles pour une lecture complexe de la gouvernance ville-port



Source : Yann Alix, 2013

Les circonstances temporelles effraient d'autant plus l'exercice de la prospective. Le temps de l'élu politique se concilie difficilement avec le temps des grands travaux et encore moins avec la durée de vie d'une infrastructure lourde. Le temps très court du riverain se surimpose aujourd'hui par des expressions souvent très structurées. Le tout s'inscrit dans des mouvances qui tantôt encouragent la décentralisation politique, tantôt l'autonomisation des territoires régionaux, tantôt (re)centralise les capacités et les autorités de gouvernance. Centralisation, décentralisation, dessaisissement conduisent à un mouvement de balancier des responsabilités et des moyens publics ; le tout dans un environnement économique où les intérêts privés tendent à de plus en plus peser dans l'enveloppe globale des investissements et des opérations.

Les EME et CLP s'inscrivent dans un marché de transport ouvert avec une très forte concurrence internationale. Les déréglementations et réformes institutionnelles ont conduit à une plus grande compétition entre les EME, les interfaces portuaires et leurs CLP. La conteneurisation a accéléré le transfert des responsabilités commerciales et opérationnelles depuis la sphère publique vers la sphère privée. Une marchandisation des opérations conteneurisées s'impose partout grâce à la systématisation des partenariats public-privé et des mises en concessions des destinées conteneurisées pour au minimum un quart de siècle. Il en résulte que le poids économique et financier des firmes multinationales dans cer-

tains environnements sociétaux et politiques peut paraître démesuré. *De facto*, l'impact des choix stratégiques des puissantes multinationales du transport et de la logistique pèse sur les modalités complexes de la gouvernance des EME et CLP. Aujourd'hui, le problème d'une gouvernance publique de la relation entre EME et CLP se trouve dans la coupure opérée avec des firmes privées dont certaines sont investies de manière simultanée sur plusieurs EME et CLP immédiatement concurrents.

Cette problématique est essentielle. D'un côté, les EME et CLP se confrontent les uns les autres au gré de compétitions globalisées. De l'autre, difficile de ne pas penser l'intégration d'opérateurs privés dans le dessein des futurs organes de gouvernance de tels territoires. La perspective d'esquisser les contours d'une gouvernance élargie en partenariat public-privé est une idée qui ne peut se défendre qu'avec l'adhésion pleine et entière de l'expression citoyenne. Aux EME et CLP s'ajoutent donc les ACC puisque le riverain devient acteur omniscient. Se pose en filigrane la question du poids respectif de chacune et chacun, à titre individuel ou collectif, dans l'exercice d'une gouvernance participative et dynamique.

Réappropriation de certains espaces urbano-portuaires, prise de conscience environnementale ou encore surinterprétation sociétale sont quelques-unes des expressions de l'ACC que nous avions relevées dans nos travaux. Les échelles locale et régionale y reprennent tout leur sens. Les dualités de convergence entre un port et ses riverains peuvent se complexifier jusqu'à des points de rupture où des projets créateurs d'emplois, de valeurs et d'activités peuvent être refusés par la population. Un déphasage peut même se construire et aliéner à proprement parler le port de son environnement humain et urbain. Le pouvoir pris par certaines parties prenantes lors des débats publics met en évidence ces creusements psychologiques et culturels. Des dissonances de minorités ont souvent un poids considérable dans le design final d'un grand projet portuaire et métropolitain.

Rotterdam, Le Havre, New-York, Sydney... les exemples contemporains ne manquent pas. Néanmoins, les ACC concrétisent une nouvelle envergure de l'expression collective avec des manifestations de citoyens parfois non concernés physiquement par des développements métropolitains et/ou logistico-portuaires. Réseaux sociaux, internet et ONG sont au cœur de la révolution de l'expression citoyenne. Cela change les pratiques d'une gouvernance nécessairement plus dynamique et participative. La réactivité, voire la spontanéité et l'instantanéité, doivent cependant se canaliser dans des organes de gouvernance construits pour porter une vision stratégique et planificatrice à long terme. Une fois encore, l'interpénétration des échelles devient quasi insoluble. L'Acteur Consommateur Citoyen dans toute sa diversité peut difficilement être représenté par des personnalités garantes de l'hétérogénéité des sensibilités. L'aboutissement de « collèges d'intérêts et d'envies » légitimes au sein des ACC constitue *en soi* un véritable défi managérial et citoyen. L'expression multiple et mélangée des ACC peut devenir cacophonique au point qu'un brouhaha compact et protéiforme n'effraie

toute sorte de consensus en matière de gouvernance.

Enfin, un nouvel élément de complexité vient s'ajouter dans la maîtrise des échelles de temps et surtout d'espace. Ce sont les regroupements stratégiques d'entités portuaires sur des territoires plus vastes afin de renforcer leur attractivité collective dans un univers de tensions concurrentielles. Un exemple parmi d'autres : Le Havre; Rouen et Paris avec des profils métropolitains et portuaires aux caractéristiques très différentes. Trois entités portuaires aux vocations commerciales plus complémentaires que concurrentes. Des CCI aux Agences d'urbanismes, des villes aux ports, des ministères aux Régions et Départements, du Commissariat général pour le développement de la vallée de la Seine au Conseil de coordination interportuaire de la Seine... toutes les forces vives publiques ont été mises à contribution pour aboutir au consensus économique et politique du Groupement d'Intérêt Economique portuaire HAROPA. Et l'ACC ? Hormis de grandes messes médiatiques organisées tour à tour dans les trois entités, aucune adhésion citoyenne ne se retrouve ou ne s'exprime dans la gouvernance de cette nouvelle entité logistico-portuaire. La plus grande diversité sociale et sociétale se retrouve dans les millions de métropolitains parisiens, rouennais et havrais sans oublier les habitants des espaces qualifiés d'intersticiels le long de la Seine. Pour esquisser les contours de la gouvernance du GIE, l'ACC n'a pas été intégré comme un potentiel en mesure d'apporter un plus à la machinerie administrative publique. Les rares prises de parole de quidams-citoyens lors des sessions publiques ont été poliment écoutées. L'expression « contestataire » des ACC s'avère peut-être moins facile à structurer quand les projets d'EME ou de CLP se diluent dans l'espace et aussi dans le temps. Les ACC des trois territoires pourraient être « indisciplinables » si elles ne parviennent pas chacune dans leur territoire à structurer une contestation au détriment des autres.

Au-delà des concurrences et des compétitions entre les trois entités, comment inclure une dynamique positive entre les ACC des trois territoires ? Les héritages historiques et les réalités sociales actuelles rendent cet exercice particulièrement ardu. Les priorités fixées dans les investissements structurants seront au cœur d'un grand écart perpétuel entre une vision commerciale, une vision planificatrice et une vision citoyenne et sociétale.

Le constat est encore plus criant quand est venu le temps de considérer la voix du secteur privé, principal animateur de ces nouvelles logiques territoriales et logistiques. Le grand corridor logistico-portuaire HAROPA existe déjà depuis longtemps par la chimie, le pétrole et l'automobile. Or, si ce n'est quelques grands témoins privés venus exprimés publiquement leur assentiment, la représentativité des grandes filières créatrices d'emplois et de valeur n'est que faiblement intégrée par l'entremise de conseils de surveillance portuaire. Un seul exemple repris par les différentes filières logistiques et industrielles : le cas de la fiscalité et des politiques tarifaires sur le nouvel ensemble institutionnel HAROPA. Les entreprises privées s'inquiètent régulièrement du manque de continuité et de trans-

parence alors que les investissements, les implantations et les développements exigent une très grande stabilité de l'environnement d'affaires.

## *En guise de conclusion : une gouvernance participative en PPP pour l'avenir ?*

Toutes ces réflexions sont à mettre en perspective des considérations d'affaires des opérateurs et investisseurs privés. Les concurrences dans la localisation des investissements et la concentration des flux physiques de marchandises concourent à l'édification de corridors massifiés. Les ports apparaissent dorénavant comme des maillons de chaînes logistiques mobiles, pour ne pas dire volatiles, dans un environnement concurrentiel extrême. Les stratégies des opérateurs et des organisateurs de transport font et défont des massifications de trafics sur l'autel de la fiabilité, de la disponibilité et du moindre coût des services.

Nonobstant ces réalités mercantiles de marché, les investisseurs et opérateurs privés ont un intérêt évident à disposer d'interlocuteurs publics puissants et légitimes. Le développement de grands projets structurants sur des EME et des CLP implique des engagements longs des investisseurs et opérateurs privés. Dans le présent ouvrage collectif, le cas subsaharien est repris pour démontrer combien une dynamique de croissance se conjugue entre capacités d'investissements publics et positionnement pérenne d'acteurs privés. Tel qu'énoncé dans le contexte spécifiquement africain, les PPP concourent à la modernisation et la croissance des villes portuaires, des EME et des CLP. Un organe de gouvernance représentatif et légitime de cet état de la relation entre public et privé constituerait de fait une avancée significative. La situation de croissance économique des pays émergents subsahariens (et d'ailleurs) constitue sûrement une opportunité historique de lancer ces innovations en matière de gouvernance de la relation ville-port. Réformes institutionnelles et édification de cadres de lois doivent apporter les fondements de ces innovations nécessaires à l'imposition de ces futurs organes de gouvernance.

L'entrée du secteur privé dans de telles structures stratégiques pourrait être finalement une réponse politique et institutionnelle à l'opacité des liens qui unissent souvent décideurs publics et investisseurs privés. *A contrario* de l'idée de faire entrer le loup dans la bergerie, l'implication de représentants légitimes des firmes privées exige seulement d'entériner les bonnes règles d'éthique et de transparence. Des syndicats professionnels ou des pools d'acteurs privés par grands secteurs d'activités pourraient s'organiser pour structurer la désignation officielle de représentants de leurs intérêts corporatistes et privés. Les modalités de l'élection des délégués pourraient se décliner en fonction de la représentativité réelle de chacune des filières dominantes ou des corporations professionnelles. Transitaires, banquiers, intégrateurs logistiques, grands chargeurs industriels,

transformateurs énergétiques, toutes et tous auraient comme exercice premier de faire entendre quelques voix légitimes d'une communauté pleine et entière. Ce premier travail que l'on pourrait qualifier de « primaire démocratique du monde économique » demeure une marche indispensable à franchir pour viser une intégration pleine et entière au sein des futurs organes de gouvernance. Le privé serait directement autour de la table des concertations et des conciliations avec des votes qui ajouteraient une forme de crédibilité au moment où se décideraient des décisions d'investissements, des planifications stratégiques ou encore des arbitrages. Pour prévenir d'éventuels risques de dérive ou de bras de fer insolubles, cette gouvernance participative en PPP exige bien entendu de l'innovation. Constitutionnalité et légalité posent déjà la problématique des territoires concernés par une gouvernance qui pourrait être supranationale selon les cas. La définition des moyens de fonctionnement et des moyens d'actions interpelle. Cette vision prospective d'une gouvernance multicéphale pourrait se décliner de différentes manières selon les degrés de maturité démocratique et le poids, la taille et la complexité des territoires à gouverner.

Dans un monde marchand globalisé où la financiarisation économique résonne en écho de la défiance citoyenne à l'égard du politique, une telle inclusion du secteur privé pourrait trouver un équilibre avec les revendications des acteurs-citoyens-consommateurs. La quadrature du cercle exige cependant une redéfinition complète des normes et des pratiques en place pour que la représentativité des parties prenantes soit juste... et que l'organe d'accueil soit gouvernable.

Dans la littérature académique et professionnelle sur les relations ville-port est rarement couverte cette double dimension du rôle des acteurs privés et citoyen; particulièrement quand il s'agit d'aborder les contours d'une gouvernance démocratique et transparente. Toute une mécanique de rupture doit être initiée selon les auteurs de la présente contribution si l'on veut espérer gouverner de manière efficiente et réaliste le global et le local de la ville portuaire moderne. Évidemment, une telle rupture dépasse le symbolique. Elle remet d'ores et déjà en perspective le mille-feuille administratif public que personifie l'EME dans nombre de pays. Elle bouscule les juridictions et autres délimitations qui apparaissent comme des barrières à la transparence de gouverner autrement un CLP. Elle suppose aussi que des fédérations d'acteurs citoyens trouvent une parade face au saupoudrage des revendications qui peuvent émailler le territoire d'une contestation plurielle (exemple sur un projet de canal ou l'extension d'un tronçon ferroviaire).

Si l'on prend l'échelle de l'espace communautaire européen, Bruxelles est censé incarner la légitimité d'une autre échelle de gouvernance. La dimension structurante et stratégique se déploie via des grandes orientations d'aménagements et d'investissements qui vise *in fine* à la promotion d'un espace communautaire toujours plus compétitif, attractif et démocratique. EME et CLP doivent se penser comme les articulations essentielles d'un système spatial et politique. Or

aujourd'hui, force est de constater qu'entre l'échelle locale de la place portuaire et la machine Europe, un monde de gouvernance existe! Sans parler des expressions plurielles des ACC européens qui appréhendent les grandes projections structurelles de Bruxelles sous un angle toujours plus local-régional et très rarement dans une ambition nationale-européenne.

Tout un corpus théorique pluridisciplinaire peut construire les fondations d'une telle gouvernance publique-privée. Et ce d'autant plus que de tels modèles de gouvernance pourraient être éphémères ou modulables pour coller au plus près de l'évolution sociétale actuelle et future. Une forme de paradoxe insoluble renvoie encore une fois à l'échelle du temps de la gouvernance. Une gouvernance en PPP avec des révisions régulières des principes élémentaires du fonctionnement et de la représentativité pour être en phase avec la rapidité de l'évolution du monde dans lequel nous vivons. Cela pourrait être le *credo* de nos gouvernants publics et le *leitmotiv* de nos entrepreneurs privés; le tout inscrit dans une forme d'agora moderne pour des citoyens acteurs d'une gouvernance participative.



## Partie II

### Retours d'expériences internationales

#### **CAPSULE PROFESSIONNELLE 1**

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**From Shipyard to Brainyard  
The redevelopment of RDM  
as an example of a contemporary  
port-city relationship**

*Isabelle M.J. Vries*

*Senior Advisor - Department of Corporate strategy  
Port of Rotterdam Port Authority (PoR)  
Part time Professor - University of Applied Sciences  
Rotterdam - Netherlands*

## Biography

**Isabelle Vries** works since 2002 at the Port of Rotterdam Authority (PoR), department of Corporate Strategy as senior advisor. Currently she is manager of the execution programme of the Port Vision 2030. Before her work at the PoR, she was manager of the department of environment and spatial planning at Public Works of the municipality of Rotterdam.

Since 2013, Isabelle Vries is part time professor at the University of Applied Sciences in Rotterdam. She conducts an agenda for applied research with focus on port planning and new economic developments for port and city.

She published several articles on port planning and port development with a special focus on port city relations. She was speaker at conferences of AIVP, RETE, IBA Hamburg and WISTA.

Isabelle Vries has two master degrees; Master Environmental Sciences (Wageningen University) and Master City Developer (Erasmus University Rotterdam).

## Introduction

The Port of Rotterdam Authority (PoR) has been investing in the redevelopment of the former shipyard of the Rotterdam Drydock Corporation ('Rotterdamsche Droogdock Maatschappij') since 2007. Working in partnership with a number of educational institutions, the PoR has transformed this area, which had fallen into disrepair, into a campus location for education, research and innovation for the Maritime and Construction sectors.

It can be considered fairly unique that a port authority has chosen to invest in such an area development for the purpose of connecting the city and port. Indeed, ten years ago, an investment on this scale did not seem the most logical step to the PoR itself. This thesis goes into the RDM case and analyses it with respect to the process, the various development phases and the underlying partnership relations. It will primarily examine the motives of the Port Authority to become involved in development of the campus – and ultimately take on a leading role in this venture. With regard to the practice of waterfront developments, the port authority is usually largely absent, which explains the dearth of available literature on this topic. As such, the RDM case can shed new light on the contemporary relationship between the city and the port. And specifically, the significant role a port authority is able – and perhaps obliged – to play in its development.

### *Development of the port-city interface*

In many port cities, the development of areas along the edge of the city and its port has enjoyed considerable interest since the 1980s. In major cities around the world, the redevelopment of former port areas into new urban riverfront districts has given considerable impetus to the urban economy. The first extensive treatment of the so called port-city interface was given by Hayuth (1982). Hoyle (2000) distinguishes various periods of development within the port-city interface. In the previous century, a growing divide developed between many ports and their city as a result of increases in scale in the shipping and logistics sectors and the development of new environmental legislation. Many port activities disappeared from these areas altogether, and one could find more and more buildings standing vacant. In most cases, as its landlord, the port authority (PA) transferred the area to the municipal authorities, since the area no longer seemed suited for port activities. As a result, the port authority also lost its former role and influence in the area. The transfers provided city governments with an opportunity to realise their own ambitions in the area of the urban economy. With the help of private-sector partners, local governments went on to transform the former port areas into attractive waterfronts for living, working and leisure. Although these developments have often met with international acclaim (e.g. Bilbao, Barcelona, London, Hamburg, Genua, Amsterdam and in Rotterdam 'de Kop

van Zuid'), some were also the subject of critical comments. The new waterfront developments have not always been effectively connected with the surrounding neighbourhoods, and the social impact of these architectural 'tours de force' is not always clear (Bruttmesso, 2009). In the early years of the 21st century, one saw a stronger interest developing in restoring the ties between the port and the city. In the redevelopment of waterfronts, parties started to try establishing a link with the port area itself – by protecting the cultural heritage of the former port, for example, or highlighting the port's place in the surrounding urban area via public information centres, events, etc.

Area developments like this involve shared but also conflicting interests. In most cases, the main conflict between municipal authorities and port authorities is based on the claims the different parties make on the physical and the associated environmental space. This often complicates the development of new economic activity in the port, or stands in the way of urbanisation (Merckx, et. al 2004, Wiegmans & Louw 2010, Daamen & Vries, 2013). The transformation of an existing port area into an urban area does not appear in the interest of the port's growth strategy. Unless this redevelopment involves some form of compensation – as was the case with the redevelopment of the Altenwetter container terminal within Hamburg's 'Hafencity' project.

Local governments often seek to create new scope for enhancing their city's appeal through the development of homes, business locations, public space and facilities. Due to the intrinsic quality of waterfront development, municipal governments will continue to put pressure on the port-city interface. The redevelopment of such areas in port cities will continue – although in Europe, this will probably not take place at the same speed as in previous decades. The extensive demographic growth and consumer spending patterns in Western and other European cities of the past lie behind us. Moreover, many of the areas where the port meets the urban landscape by now lie significantly further from the city's historic centre than was the case with the first waterfront developments. On top of this, new port expansions are becoming increasingly complex, meaning that port authorities will be less and less inclined to surrender existing port space.

Since the full transfer of the port-city interface to municipal government and the development of new space for the port are no longer as likely as they once were, it is quite reasonable to expect port authorities to adopt a more active role in these obsolete port areas. But which strategic options are at the port authorities' disposal to act in the redevelopment of an area that is no longer suited for logistics and industry?

## *Strategic options for the port authority at the port-city interface*

The field in which port authorities are required to operate has become more and more complex. There is a steady increase in the level of mutual interdependence between the various players in the port cluster and the chain (Notteboom & Winkelmanns, 2001; De Langen, 2004; Slack, 2007; Pettit & Beresford, 2009). Speed, reliability and cost management are a key focus throughout the entire chain. This development will only be gaining further momentum due to further alliances and mergers between shipping companies. It has become increasingly important for local ports to link to the global multimodal transport network, guarantee the quality of the hinterland connections and build connections with terminals and distribution centres in the hinterland. To remain competitive, the PA needs to play an active role throughout the total chain – including beyond the areas under its direct management. This network is characterised by a large number of actors. A port's performance is determined to a major extent by the quality of the relationships the local port authority enters into with other actors in the network (Van Gils et al., 2009).

In addition, ports are confronted with stricter European safety and environmental legislation and issues relating to the employment market, port services, their image in the area of innovation, quality of life, and critical stakeholders (Van Gils et al., 2009; Jacobs, 2009; Verhoeven, 2009; ESPO, 2010; OECD, 2013). Therefore, the local context remains an important factor.

Under the influence of the above trends, the role of some port authorities has shifted from landlord to developer. In this role, the port authority has opted for a more active attitude vis-à-vis the market. Van der Lugt & De Langen (2007) characterise the new role of the port authority as 'beyond the landlord'. The extent to which this shift takes place depends on the port authority's governance model (public, privatised or private) and the scope that it is awarded by its shareholders for assuming the role of developer.

Generally speaking, corporatised port authorities demonstrate an active involvement with activities that are not directly linked to the landlord role, such as the prevention of congestion, education, marketing and sustainability (Van der Lugt et al., 2013). The Port of Rotterdam Authority, which was corporatised in 2004, has two shareholders: the Municipality of Rotterdam (holding 70% of the shares) and the Dutch national government (holding 30% of the shares). The PoR indeed likes to position itself as a port developer (De Langen, 2013). Examples of activities that are unfurled by the PoR 'beyond the landlord' role have been included in table 1. The redevelopment of RDM should also be counted among the latter group.

**Table 1:** Framework for port activities beyond the PA's landlord function.

Landlord	Management and development of port area including nautical access			
Beyond the landlord (developer)	Own port related activities		Non-own port related activities	
	Operational activities within port boundaries	Operational activities in hinterland	Supporting activities	
	<i>Development RDM Multicore pipeline (JV)</i>	<i>Key Rail Container Transferium Alblasserdam</i>	<i>Port Base (ICT) Info centre for education World Port Days</i>	<i>Development other ports (Sohar and Porto Central JV) PoRint (international Port Consultancy)</i>

Source: Van der Lught & de Langen, 2008. Ingrey : examples from the PoR added by the author

According to Verhoeven (2009), the modern port authority faces three types of challenges, which it adopts as a point of departure for its strategic objectives<sup>1</sup>:

- Commercial pressure;
- Financial pressures;
- Spatial pressures.

However, societal pressures are explicitly absent in Verhoeven's list, even though in the case of corporatised PAs, such pressures form an important factor in their chosen strategy (ESPO, 2010; Van Gils et al., 2009; Daamen & Vries, 2013). As mentioned earlier, location factors like the flexibility and quality of the local workforce, quality of life, sustainability and the development of a modern and innovative image play significant roles.

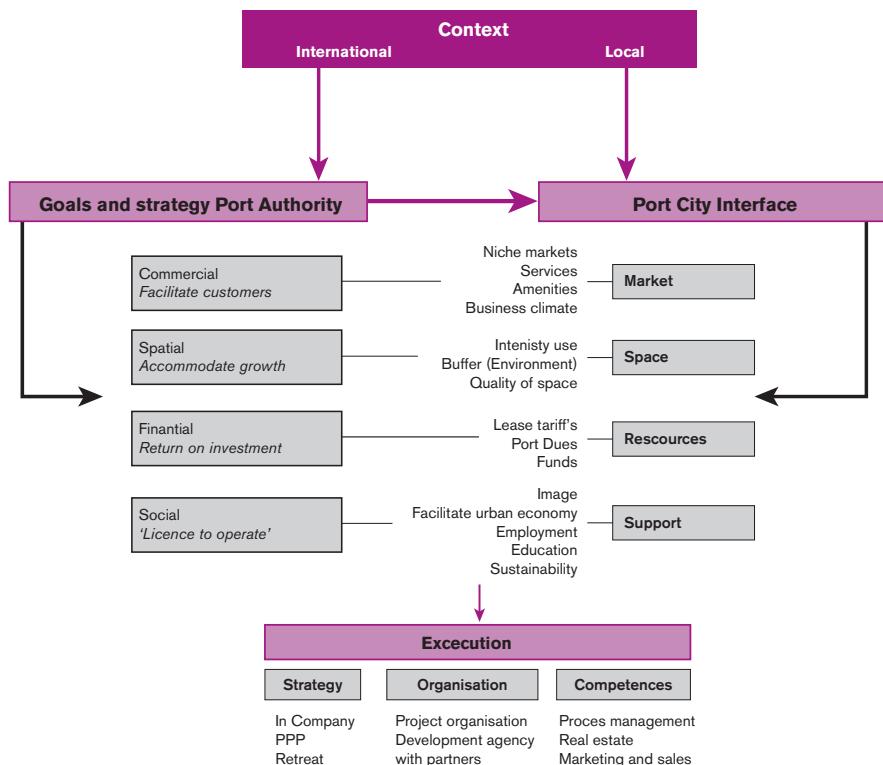
<sup>1</sup> The port authorities' public, nautical task (harbour master function) is not taken into consideration in this paper.

Based on the above-mentioned considerations, we have developed a model that treats the interrelationship of the PA's strategic goals in relation to the development potential for the port-city interface (figure 1). The area's potential is determined by the market situation, the available resources and instruments, the local spatial structure and the support that exists or that needs to develop further among the different stakeholders for the area's redevelopment. Indeed, the area's specific potential is determined to a large degree by the local context.

The model indicates that a number of the port authority's strategic objectives can be matched to the intended area development on the edge of the city and its port, and that therefore the PA can play an active role in the realisation of the development. If there is no match, the PA is advised to transfer the area. In cases where there is elsewhere in the region little development potential for a port, the PA will be less inclined to retreat from the port-city interface. In those cases, the area's transformation or development towards a mixed-use zone will slow down (Merckx et al., 2004).

We have applied this model within a study focusing on different waterfront developments in the port cities of Marseille (*Euroméditerranée*), Barcelona (*Port Vell-Nova Bocana*), Hamburg (*Reiherstieg-Kleiner Grassbrook*) and Amsterdam (*City Port Minerva*). We have concluded that in the examined cases, the port authority initially adopts a defensive role. In the early stages of the process, the PA's primary motive is often the retention of space for the port. In practice, it turns out that several port authorities regret their somewhat hasty retreat from these areas in the past. In response, they occasionally put on the brakes, which slows down the pace of area developments. For example, the redevelopment of the next phase of Antwerp's 'Het Eilandje' had to be postponed in connection with the interests of the local port complex (Merckx et al., 2004). The second phase of the ambitious *Euroméditerranée* project in Marseille has also been called off as far as the port area concerns for the same reason. The port authority of Hamburg has admitted that the large-scale and successful development of *Hafencity* is experienced as a threat to the port's environmental buffer zones. This insight will undoubtedly have consequences for the possibly next redevelopment project in Hamburg, on the opposite side of the river (Jump over the Elbe) (Vries, 2010).

Still, some port authorities – either under pressure from other parties or of their own accord – decide to adopt a more active and developing role and participate more frequently in area development projects (Vries, 2010; Daamen & Vries, 2013).

**Figure 1:** Port-City Developer model

Source: Vries, 2014 (translated from Vries, 2010)

## *The RDM Campus case*

### **Context: City Ports Rotterdam**

The Netherlands' largest inner-city restructuring operation is known under the project name City Ports ('Stadshavens'). Working under the motto 'Creating on the Edge', the Municipality of Rotterdam and the PoR have embarked on the redevelopment of large sections of the eastern port area. All in all, the project involves the restructuring of some 1,600 ha, of which 600 ha are 'dry sites' and the remainder involve port basins and parts of the river itself. Only a small share of the project area will be transformed into a new urban area at some point.

**Figure 2:** Aerial view of the City Ports Area. In circles: RDM and Heijplaat



The redevelopment of the City Ports area serves a dual purpose: a stronger economy as a result of a wider and more sustainable port, and a more attractive city as a result of the urban development of the local inner-city river banks (Municipality of Rotterdam, 2011). The area is so large that we can actually speak of multiple waterfront developments – each with their own unique dynamic and elaboration.

Ten years ago, the Port Authority of Rotterdam together with the Municipality announced the major 'City Ports' project in its *Port Vision 2020* (Port Authority of Rotterdam, 2004). The PoR and the Municipality of Rotterdam decided from the outset to set up a joint city ports development corporation. The development corporation was assigned responsibility for the formulation of the general outlook for the area and the transformation of the project sub-areas. However, three years into its brief, this development corporation had proven a failure – for a variety of reasons (Daamen, 2010). These included responsibility for an area that was too large in geographic terms, the absence of a common vision among the shareholders the Municipality and the PoR, stagnation in the decision making process on national level for the port expansion Maasvlakte 2, and the fact that a number of OMSR founding fathers had retired from the scene. The development corporation itself had a strong focus on urban development, and less on strengthening the existing port cluster – even though the port areas in question proved able to still turn out a healthy profit.

The debate surrounding who had the power in which sub-area became fierce. However, in 2007, the parties reconciled their differences in a new partnership agreement between the Municipality and the Port Authority, the so-called North-South Deal. In this agreement, areas on the city's southern riverbank, which still make a solid contribution to the port's operations (Waalhaven, Eemhaven and RDM), remain under the PoR's management. For the other areas, the parties have made agreements about their gradual transfer to municipal management and the retreat of the PoR from these areas.

In its present course, the development of the City Ports area mainly focuses on mixed-use areas, in which the intention is to develop a symbiotic relationship between the port and the urban economy and in the process establish a link with the surrounding residential neighbourhoods.

On the one hand, the result of the partnership agreement was determined by changes in the insights and strategy of the PoR. The Port Authority became increasingly aware that an active investment strategy for the City Ports areas that had fallen into disuse could create added value for the port cluster. Particularly when it came to attracting new port-related and service-oriented companies. Meanwhile several offices for those companies have settled in the Waalhaven.

But the municipal government of Rotterdam also changed its course. As a city, Rotterdam has traditionally been a fairly one-sided industrial centre, home to a relatively young population with low educational qualifications and with a high unemployment rate and a low GDP per capita compared to other major cities in the Netherlands (Merk & Notteboom, 2013). In other words: on the one hand the city has a major interest in retaining jobs for a relatively lowly-qualified workforce, and on the other hand in broadening its economic base and attracting knowledge-intensive companies and high-qualified talent. In addition, in the period under review, Europe went through a major crisis in its financial and construction sectors, leading in the Netherlands and certainly in Rotterdam to a significantly diminished demand for new homes and offices from 2009 on.

The Municipality has given priority to the attraction of new economic clusters. In this process, it has made sizeable investments in the so-called clean-tech sector: companies that develop and export knowledge in the field of energy transition, climate adaptation and delta security. Activities that, logically, are closely connected to Rotterdam's position as both an international sea port and a 'delta city'.

From this moment on, the 'crossovers' between the economic development of the City Ports area and the port cluster are placed far more firmly on the agendas. One area where this new focus has truly come into its own is the RDM site.

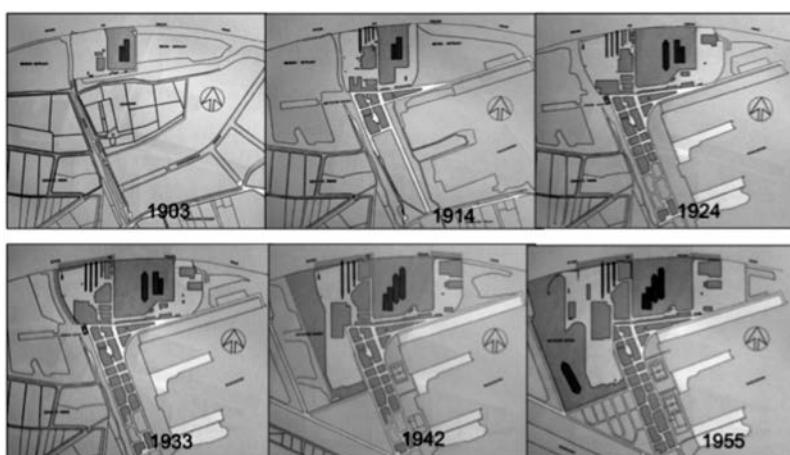
## History of RDM and Heijplaat Village

The site of the former Rotterdam Drydock Corporation ('Rotterdamsche Droogdock Maatschappij') was first developed in 1902 in what was then still a riverside polder area (*figure 3*). In view of its peripheral location from the City Centre, the RDM management at the time decided to build a village for the employees and their families near the shipyard. The village of Heijplaat, which was founded in 1914, originally comprised some 500 homes, 3 churches and various public facilities such as shops, parks and sports fields. In the years after the Second World War, RDM enjoyed unprecedented growth and in the 1950s the village was therefore expanded with a new district: 'Het Nieuwe Dorp' (The New Village). In these prosperous times, RDM wharf employed a workforce of some 5,000 people.

In the 1970s, the Dutch shipbuilding industry found itself in heavy weather, with RDM facing stiff competition from other players. Various mergers with other companies were of no avail. In 1983, RDM closed down its Offshore division. A number of viable divisions continued operations and after several reorganisations and divestments, in 1994, the site was acquired by the private firm Baris. In 1996 the final shipbuilding activities abandoned the site, followed by submarine maintenance and servicing in 1999. The curtain came down for the last remaining RDM business unit in 2004 (Van Asch, 2012).

In the meantime, the village of Heijplaat had become increasingly isolated from the nearby city as a result of the construction of the gigantic Waalhaven and Eemhaven port areas. Nor did the village have any kind of development potential, due in part to the environmental buffer zones that had been established for local port operations. The village had been robbed of its single largest employer. In 1980, the Municipality transferred the ownership and management of the homes in Heijplaat to the Woonbron housing corporation.

**Figure 3:** (Optional) Development stages of Heijplaat and RDM



The lack of development perspectives even led the Municipality to decide in 1990 to demolish the village in 2005. A passionate outcry from local residents and sympathetic outsiders led to the repeal of this decision.

The City Ports programme was expected to provide new perspectives to the village, indeed due to the assumed shift of port activities to the west. In 2002, the PoR acquired the RDM site from Baris by order of the Municipality. According to council minutes, the Municipality saw considerable potential in the RDM site as a location for offices and businesses, but also for housing (Van Asch, 2010).

The PoR was subsequently privatised in 2004, and at the same year the city ports development corporation was set up. The PoR entrusted the development of visions and plans for this area to this development corporation – albeit with growing distrust. After all, the redevelopment of RDM and Heijplaat was not allowed to negatively affect the port companies operating in the vicinity. Moreover, the spatial requirements of the Rotterdam port came under pressure, due to stagnation at national level in the decision making for the extension of the port with Maasvlakte 2 (Daamen, 2010). The RDM redevelopment project threatened to go into deadlock.

### **A new perspective: Research Design and Manufacturing (RDM)**

Then, around 2005, the Rotterdam University of Applied Sciences and the Albeda College were looking for space to accommodate their practical technical degree programmes. They developed a campus model for these programmes, and ultimately managed to convince the CEO of the PoR of this concept and the new opportunities it would create for both the port and the city. The triangle education, research and enterprise would be able to create new perspectives for the area and lead to innovation in the technical education sector. During this period, the PoR saw the port confronted with a difficult employment market, due – among other factors – to insufficient intake of young people with good technical qualifications. For this reason, the PoR had already worked to promote ties between various educational institutions and companies working in the port.

The campus concept was in line with this idea. In 2006, the educational institutions, the PoR, the Municipality as well as Woonbron signed a statement of intent for the RDM site. The campus became reality under the title 'Research, Design and Manufacturing' (RDM). From this moment on, the PoR – as the owner of the site and the local cultural-historical heritage – worked on the development of a master plan and a business case. RDM's former head office and central Machine Hall were renovated, after which the educational institutions moved into these premises in 2009. The PoR also made further investments in the public space, organised a water bus connection and relocated companies that caused inconvenience in the area, such as the empty depot.

The educational institutions became responsible for the interior development of the halls and the necessary facilities. In addition, they were expected to themselves attract tenants for the Innovation Dock, which was opened by Crown Prince Willem-Alexander during a festive ceremony in late 2009.

**Figure 4:** Areal view of the RDM Campus, the head office and the Machine Hall



### A new perspective for Heijplaat?

During the opening ceremony of Innovation Dock , also opening of the 'blue gate' took place. This offered local residents access to the site that had been closed to them for so many years. The investments in the RDM Campus allowed the village of Heijplaat to benefit from facilities like public space, improved access to the waterfront, public transport via water bus to the city centre, and the Dock Café which was set up in RDM's former staff canteen.

At the start, it seemed logical for Woonbron as the housing corporation to join the signatories of the RDM plans and take on responsibility for the rejuvenation of the village. After all, the homes constructed in the 1950s in particular were in urgent need of replacement. To channel local residents' involvement and promote dialogue with the professionals, Woonbron organised the Platform Heijplaat Vitaal, which serves as a forum for regular discussion of new developments at the RDM site and Heijplaat. Some residents were – and have remained – critical about the development of the RDM site. They are afraid that the arrival of students and new industrial activity with the associated traffic will lead to inconvenience.

Woonbron, one of the original partners in the RDM Campus, stepped out of the campus in order to focus on its core activities: the development and management of the village of Heijplaat. Woonbron and the Municipality share an ambition to develop Heijplaat into the Netherlands' most sustainable village – a centre of experimentation in the fields of climate-adaptive construction and smart grids. This links the village to the research and innovation unfurling at the RDM Campus.

To underline this ambition, Woonbron, the Municipality of Rotterdam and the PoR signed a new partnership agreement for the further sustainable development of RDM *and* Heijplaat. They made agreements about, among other things, a well-integrated second access road for the RDM location, the climate-neutral development of Heijplaat and the engagement of local residents.

But to this day, Woonbron has been unable to successfully arrange the funds and operation for the planned new construction. Although the 330 cramped, poor-quality homes of The New Village have long since been demolished, as of 2014, the projected 200 new family homes are still a distant dream. Over the years, the mistrust felt by a number of Heijplaat residents has been growing, despite all the promises that have been made. The required investments in the village continually fail to materialise and communication between the parties does not always run smoothly. The latter became apparent when seemingly all of a sudden construction of a large new industrial hall started directly opposite Heijplaat. But in addition to this group of frustrated local residents, there are also groups who recognise that the RDM development creates new opportunities for Heijplaat and who have gone on to organise activities of their own. For example, local residents took the initiative to set up the 'Groenkleed' (Green Carpet) project, which promotes more green areas in the village.

## RDM Today

One of the locations that stand at the heart of developments in the area is the Innovation Dock, which serves as a base for innovative start-ups as well as experimental projects by established companies. The campus students are linked to the research, pilot projects and experimental projects organised here. Initially, the Innovation Dock mainly attracted companies involved in building, moving and powering, but the PoR in particular has put considerable effort into luring companies in the Marine Technology and Offshore sectors to this location too. More than 20 companies are presently active in the Innovation Dock (*table 2*). These companies perform research into new applications and can make use of shared facilities such as office space, equipment and the spaces in the halls and the Dokhaven basin. The entire area surrounding the RDM site is ideal for experimentation, however. For example, the scientific institutions have worked together with private sector parties to construct two Concept Houses in Heijplaat: pilot project homes that offer new insights into sustainable and self-sufficient construction. The Dokhaven will soon be home to a new Aqua Dock, where

private parties can experiment with floating structures. Company *Ampelmann* was one of the first self starter at the Innovation Dock, and the firm's innovative offshore system has enabled it to grow into a fully-fledged company with a solid international order book. Having outgrown the Innovation Dock, the company has presently been assigned a new space elsewhere on the site.

The educational institutions emphatically link their curricula and research programmes to issues relevant to the local companies. Researchers, students and private firms collaborate in the field of applied research and innovation within so-called 'Communities of Practice'. A number of companies – such as the company Esfa (sustainable bicycles and energy-efficient scooters) have given concrete shape to their corporate social responsibility by recruiting and training young unemployed residents from the village of Heijplaat.

By now, a number of established marine companies working in the Offshore sector have also set up at RDM (*Vryhoff Anchors, Franklin, Condor, Bonn & Mees*). In effect, this restores some of the functions that were traditionally accommodated at the RDM site.

**Table 2:** Tennants RDM Campus (source Port of Rotterdam Authority, 2014)

<b>Innovation Dock</b>	Ampelmann Archimedes Daamen Shipping Doet EICB Energy floors Esfa Engineering office Rotterdam Jules Dock Huisman Hyperbody IHC Merwede Imtech Marine Innovation centre plastics Mobile Inheritage Centre Mr. Elevator Perplex Port-able Public Domain Architects RDM Makerspace Skilledin Van Gansewinkel Yumm Concepts	Offshore Energy Offshore Mobility Mobility Energy Mobility Construction Offshore Offshore Construction Offshore Offshore Offshore Offshore Offshore Services for new businesses Training-education Recycling Food
<b>Machine hall</b>	Rotterdam University Albeda College RDM Congress and Events Centre	Education Education
<b>Head office</b>	Rotterdam University, Centre of expertise and Academy of Architecture RDM Congress and Events	Education
<b>Ship building hall</b>	Franklin i-Tanks	Offshore Logistics

<b>Office Heijsehaven</b>	STC off shore training (SAIO)	Education
<b>Dock office and hall</b>	Dokkaffee	Café
	Aimabel	Design
	Alternative Energy Store	Energy
	Heatmatrix	Energy
<b>Submarine hall</b>	Ampelmann	Offshore
	RDM Congress and Events	
<b>New hall under construction</b>	Condor	Maritime services
	Bonn & Mees	Maritime services
<b>New hall under construction</b>	Vryhoff Anchors	Offshore

Source : Port of Rotterdam Authority, 2014

In addition to promoting education, research and enterprise, the RDM Conference Centre also facilitates the organisation of conferences, symposia and workshops. The latest development is the organisation of a cultural programme for the area. Against the backdrop of the former Submarine Hall, the RDM Campus partners organise art exhibitions and drama productions, music and dance performances and opera. Such cultural events attract more and more visitors to the geographically isolated RDM location.

### The Port of Rotterdam Authority as developer

As becomes clear from the preceding sections, in its activities for RDM, the PoR has transformed from a landlord into a developer (table 3). This transformation was by no means a matter of course. The PoR was required to develop and recruit new competencies and expertise like process management, redevelopment of cultural inheritance, new business development . After all, the development of an area such as the RDM site is an entirely different other challenge than the development of a port area or a container terminal.

The PoR's initially defensive strategy for RDM – the retention of environmental buffer zones for the port complex – has been succeeded by a commercial strategy in which new and innovative private companies are attracted and new ties are created with the established private sector in the nearby port. In addition, the PoR gives concrete shape to its social strategy by actively focusing on the connection of educational programmes with the employment market and the development of a cultural programme for the area. The PoR has increasingly come to view RDM as a showcase for the port.

The PoR's developing role is becoming more and more pronounced. The Rotterdam University of Applied Sciences is increasingly concentrating on its core activities, namely education and applied research. The University has transferred its acquisition activities for the Innovation Dock to the PoR, as well as recently its activities for the RDM Events and Conference Centre.

In other words: in addition to investing in RDM's 'hardware' (public space, real estate), the PoR is increasingly taking on the role of programmer for the area.

The PoR has invested over 100 million € in RDM. Return on investment for the project is lower than what the PoR is accustomed to. This shows that the PoR has not committed to the redevelopment of the RDM for financial motives, but above all for considerations of commercial and social strategy. In addition, the port authority has maintained control over the use of the area, effectively safeguarding the interests of port operations in the vicinity of the RDM location. When we view these results within the context of the *Port City Developer* model, the redevelopment of RDM constitutes a successful match with the PoR's three strategic objectives.

**Table 3 : Development stages of RDM Campus and the role of the Port Authority**

	2002	2004	2006	2008	2010	2014
<b>Strategy</b>	Municipality underlines importance of waterfront development in City Ports area, including RDM	<i>Port Vision 2020:</i> Municipality and the PoR announce transformation of City Ports as major task	Revised agreement of the PoR and Municipality with goals, phasing and execution strategy for City Ports area.	Development of RDM as a campus location for 'Research, Design and Manufacturing'. Educational institutions form the heart of the campus.	More focus on synergy with port-related RDM activities in education, research and innovation and private port companies.	Creation of a 'showcase' for the RDM Campus and the port in general via cultural and social events.
<b>Event</b>	PoR acquires the disused RDM site and real estate from Baris on behalf of the Municipality.	Privatisation of PoR. Foundation of OMSR. Bankruptcy of last RDM business unit.	OMSR dismantled (2006). New assignment of PoR and Municipality (2007)	Albeda College (AC) and Rotterdam University of Applied Sciences (RU) set up at RDM Campus (2009)	PoR takes over responsibility acquisition of new tenants in campus from RU	New lease contract for principal tenant RU and AC. The PoR takes over activities for conference centre from RU.
<b>Role of Port of Rotterdam Authority (PoR)</b>	<b>Landlord function</b> → <b>Beyond the Landlord (Port Developer)</b>					
	Municipal agency and caretaker for RDM.	Caretaker. Defends port interests against OMSR urban development plans (safeguarding space for port activities).	Adopts strategy of AC and RU for development of RDM Campus. Becomes responsible for the planning.	Responsible for the planning and starts realisation of the 'hardware' (real estate and public space, public transport).	Responsible for planning, realisation hardware, and acquisition of new tenants	Responsible for planning, hardware, acquisition of new tenants, marketing and programming of cultural and social events

PoR = Port of Rotterdam Authority

OMSR = Rotterdam City Ports Development Corporation

AC = Albeda College

RU = Rotterdam University of Applied Sciences

## Concluding remarks

The RDM Campus case presents the basic factors that determine the port-city relationship in a nutshell: the symbiotic development of port functions and urban functions; the improvement of quality of life in an area through the development of more public facilities; modern educational and the creation of new opportunities for business development and research.

Its history also shows us that this process demands a lot of work. In this particular case, the port authority and the education institutions have taken over the role of active developer from the parties traditionally associated with waterfront development projects (the Municipality, housing corporations and real estate developers). These new players were required to develop the expertise and competencies on integrated area development in the port-city interface.

The project's development seems robust enough, but a lot depends on whether the Port of Rotterdam Authority is prepared to keep playing a leading role. Furthermore, the development depends heavily on the contribution of the main partner, the Rotterdam University of Applied Sciences. This year, the University signed a new 5-year lease contract with the PoR. However, it comes as no surprise that the PoR is presently focusing on broadening the campus's base with other educational institutions. It has developed new relationships with the Shipping and Transport College and Delft University of Technology. In addition, attracting sufficient numbers of students to the area remains a challenge, given the quite poor accessibility of the area. Due to the site's peripheral location vis-à-vis the city, it will be necessary to further expand public transport connections and other facilities.

The future of the village of Heijplaat, which is currently celebrating its centenary, is uncertain. In 1975, the village had a population of 2,750. By the year 2000, their number had fallen to 2,000; and by 2013, the population had dropped to a mere 1,400 –due in part to relocations and demolition (source: [www.rotterdamcijfers.nl](http://www.rotterdamcijfers.nl)). That the PoR would also take on the development of new houses for the village of Heijplaat is barely conceivable – this role would simply be too far 'beyond the landlord'. Housing corporation Woonbron does not appear to be able to fulfil its assumed duties for the village. Heijplaat is in dire need of new leadership. Quite logically, the Municipality should start to search for new partners, who will be able to make work of the village's development based on an innovative perspective on urban planning, organisation and financing.

And finally: could this model also be copied in other port cities? No, of course not – many matters are dependent on the local context and the specific objectives and strategy adopted by both port authority and municipality, and other stakeholders. Nevertheless, in stead of standing on the brakes, port authorities should carefully

consider the benefits to play an active role as developer of the port-city interface. And to do so in a way that benefits both the city and the port. In that sense, the redevelopment of the RDM wharf is an inspiring show case for a symbiotic relation between port and city.

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## **Capsule professionnelle 2**

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# **Durban and its Port: An Investigation into the relationship between the City and port of Durban'**

*Ajiv Maharaj*

*Economic Development Department,  
eThekwini Municipality  
Durban - South Africa*

*Andrew A. Mather*

*Coastal Policy,  
eThekwini Municipality  
Durban - South Africa*

## **Biography**

**Ajiv Maharaj** holds a Master's degree in Town and Regional Planning and PhD in Urban Geography. He worked for 3 years as a development consultant before joining the eThekwini Metropolitan Council as an urban planner. He then worked as a Development Manager focusing on implementing developmental projects and also as the Manager of the Durban Beachfront. He was subsequently appointed Project Executive focusing on industrial sector support and later as Deputy Head of Economic Development responsible for the conceptualization and implementation of economic projects. Since 2011 he has assumed the role of Deputy Head of Economic Development and Investment Promotion Unit with the responsibility of managing the Policy, Strategy, Information and Research department. He authored the eThekwini Economic Development and Job Creation Strategy; several academic journal articles and regularly peer reviews academic articles on behalf of journals. He authored a book

*called "a Locality Based Approach to Tourism" and initiated a publication called EDGE (Economic Development and growth in eThekweni) and currently serves on various committees.*

**Andrew A. Mather**

**EDUCATIONAL QUALIFICATIONS:**

*Bachelor of Science (Civil Engineering), University of KwaZulu-Natal, Durban.*

*Honours Bachelor of Commerce, University of South Africa, Durban.*

*PhD in Environmental Science, University of KwaZulu-Natal, Durban.*

**WORK EXPERIENCE:**

*25 years experience in stormwater, catchment and coastal management,  
15 years at senior management level within the eThekweni Municipality.*

**CURRENT POSITION:**

*Head: Engineering (Acting)*

*Heads up the Engineering Unit of the eThekweni Municipality. Manages a staff complement of 3500 staff with capital and operating budget of R2 billion each. Responsible for the design and implementation of a broad range of civil engineering and architectural projects as well as two in house design consultancies.*

## Introduction

According to the EThekewini Economic Development and Job Creation Strategy (EThekewini Municipality, 2013), when one compares Durban to the six other metros in the country, a distinct picture emerges. Across a number of indicators, the rate of poverty and unemployment only compares to the Nelson Mandela Bay Metro, with the key difference, that the population of eThekewini is significantly larger than Nelson Mandela Bay, and hence the extent of the challenge is far greater. In summary, eThekewini has the highest number of people living in poverty; the highest number of people on social grants, while having too few people employed (only 22% of the total population is employed). The city also has the lowest per capita income; the second lowest consumption expenditure per household; very high youth dependency and slow rate of reducing youth dependency; and one of the highest rates of migration of skilled professionals. There is a high level of dependency and income levels are low resulting in low levels of disposable income to spend on consumption goods. There is also a disproportionately high expenditure on property (rates and rent) and travel, further eroding disposable income. Of particular concern is that eThekewini, while being home to the continents premier port, only ranks 4th in terms of net exports.

According to census data (StatsSA, 2012), eThekewini has performed much better in terms of the delivery of basic service, which is also evidenced in the fact that while KZN has the greatest number of people living in poverty, it had the lowest number of service delivery protests. The delivery figures in terms of basic services and housing also support this notion (Global Insight, 2013). In general the performance of the city is of great concern and unless urgent and ambitious programmes are put in place, the social burden will increase to ultimately undermine the financial viability of the Municipality (EThekewini Municipality, 2013).

The EThekewini Municipality's Economic Development and Job Creation Strategy (2013) asserts that Durban is at a crossroads and unless it pursues a path that seeks to significantly increase job creation, its long-term future will steer it far from the warmest place to be, or "Africa's most livable city". It further argues that Durban's long term finances may also be questioned on the basis that the level at which property rates are levied must take into consideration the ability of the population to pay. Currently, according to National Treasury, Durban's rates charges in relation to the income levels of the population, is the highest among the Metros. The real challenge in the facts stated above, is to grow rates through investment and increasing the number of employed people that are able to pay for rates and service charges. Furthermore In order to meet the targets in the National Development Plan, the local economy must double its current rate of job creation. To address the challenge of poverty; unemployment and inequality, formal job creation must be catalyzed (EThekewini Municipality, 2013).

Given the current position outlined above, the future dilemma for the Municipality will rest on the trade-off between providing social services to the poor and pressure to increase taxes on a relatively small rates base. The deciding factor will rest on the ability to increase the rate of inclusion of the unemployed into the economy through transformation, but more importantly, through growing the economy and increasing its labour absorption rates.

At the heart of the Durban economy is the port, which until recently was Africa's busiest and largest container port. Getting a good estimate of the significance of the port to the local and provincial economy is a difficult task. While the port and related businesses employs about 50,000 people, there are numerous firms that depend on the port in one way or another (Maharaj, 2013). Manufacturing firms such as Toyota South Africa chose the Durban location due to the presence of the port as their export and import functions are a large part of the business. There are many large as well as smaller manufacturers which support thousands of local jobs. There are also freight and logistics companies which are involved in the business of sea trade and transport as well as land freight. This includes many maritime firms, and the growing significance of the maritime sector is a clear indication of the growing significance of the port. Component assemblers; retailers and the FMCG (fast moving consumer goods) industries all have linkages to the port. To a lesser extent, the tourism sector also has linkages with the port in terms of the growing cruise tourism industry.

Jones (1997) reported that at 1995 levels of port activity, the direct port-ancillary sector accounted for 25,000 jobs and a further 8,000 in establishments supporting these directly. At that stage it was reported that, using Braby's data, an estimated 850 firms were directly supporting the port. These ranged from cargo terminal operators to yacht brokers and sailing schools; clearing and forwarding cartage contractors and transportation companies, freight services and warehousing establishments, ship liners and agencies, and cargo agents. The majority of these firms are located in areas that are in proximity to the port (Jones, 1997). In 2006, it was reported that Transnet employed 3,300 people directly at the port, which is estimated to have increased to 4,000 in 2011. In 2006, it was estimated that 40,000 people were directly employed in port-ancillary activities or supporting these in port-dependent firms (e.g. contract staff). Given the rate of expansion of the transport sector, it is estimated that in 2011 this has risen to approximately 48,000 – 50,000 jobs (Maharaj, 2013). However, what is more difficult to determine is the number of jobs in the manufacturing; agriculture and trade sectors which are located within the eThekwin Municipal Area due to the relative advantages of the port. Making various assumptions, we may conservatively estimate that another 48,000 jobs in such related sectors owe their existence in the city to the presence of the port. This would bring the total to 53,000 jobs directly related to the port and at least another 55,000 induced jobs, implying a total of 103,000, or about 10% of all employment in the EMA (Maharaj, 2013).

Of course, employment and the impact of the port on employment is not limited to Durban, but is significant in the provincial and national economy. The port also serves the SADC region and is hence a major influence on the economy of this region.

## *Historical Background*

In the 1840's Natal became a British Colony and it became apparent that for the colony to succeed, the import and export of goods through the Port Natal harbour in Durban (D'Urban as it was originally named) need to be provided for. The British Government wished to develop the Port Natal harbour however financial constraints prevented this for some time, in 1846 the total income from the colony was only £3100. Gaining access to the protected estuary in which Port Natal harbour was situated was restricted due to the sand bar and sand banks at the estuary mouth. In March 1850 there was only 1,95m of draught at high tide. The problems of the sand bar across the entrance to the port, which severely limited ship draught and risk to shipping movement, were the focus of the port engineers and over several schemes were implemented from the 1850's till early 1900's (for more reading on the harbour entrance improvements, readers are directed to Barnett (1999)).

By the late 1930's the "battle of the bar" had been won and with dredgers now maintaining the entrance approach at a depth of 13m, the width and size of vessels stated to gain momentum (Barnett, 1999). In the latter half of the 19th century the port and city both grew, unlimited by land constraints until the mid 20th century. The vast natural estuary that formed a natural bay protected by a large sand dune/bluff to the south provided sheltering from the winter storms. The port and city had now reached a state where there started to emerge issues which had negative impacts for the other party. This situation was exacerbated by the institutional arrangements in place.

The Port of Durban has always been part of a National department while the Borough and later the City of Durban has been under municipal control since its establishment in the mid 1800's. Both organisations not surprisingly have different goals. The Port wishes to maximize the volumes of freight across the quay while minimising costs, while the city desires maximum economic benefits to citizens and surrounding industry but at the same time managing transport flows and reducing congestion. At one time the relationship between the City and the Port was very adversarial, based primarily on the attitudes of the two key technical leaders in the Port and the City. Both these individuals were Scottish clan descendants whom had waged war against each other in the 16 and 17th centuries. The "war" continued with little co-operative outcomes until these two personalities retired. In the post 1990's era the City and the Port started working closer but still had a difference of opinion on issues based on their individual mandates. The port authorities still

planned within their land while ignoring the impacts outside their land boundary e.g. car terminal at the Point. This was as a result of the institutional hierarchy, the Port management and planning at a National level while the services supplied (water, electricity, roads, etc) by Local Government which reinforced a perceived superiority by National departments, when in fact neither should trump the other but should be seen as complementary and harmonised.

## *Socio-Economic Relationship between port and city*

According to Fedderke and Simkins, (2012), while South Africa's industrialisation started as early as 1915, it was only after 1945 that the economy diversified into a number of manufacturing sub-sectors. Between 1945 and 1970 national growth and employment was driven by manufacturing. It was during this period that the Durban economy grew rapidly and manufacturing became the number one employer within the Durban economy. Furthermore, the Harvard papers produced in 2006 illustrated the importance of the manufacturing sector in being able to absorb a large semi-skilled work force and presented the best opportunity to absorb the unemployed into the work force. However, in the last 10 years, manufacturing has become less competitive due to a number of factors and other manufacturing destinations including - China, Malaysia, Korea, Brazil and Turkey; to name a few - have become more attractive. This has seen a lagging manufacturing sector which has been consistently underachieving in the recent past. One of the key factors affecting competitiveness of export manufacturing is the high costs of logistics.

Logistics costs have often been highlighted as an important factor impacting negatively on the competitiveness of South African business. According to the 8th State of Logistics report, logistics costs accounted for 12.7% of GDP in 2010, down from 13.5% in 2009 (CSIR, 2012). The report also noted the high externality costs experienced nationally. The national costs for road accidents were estimated at R13.8 billion per annum (while CO<sub>2</sub> emissions would have added another R6.5 billion to the transport bill, if these emissions were taxed). The changing nature of global supply chains in favour of flexible operations and time-sensitive movement as well as the challenges associated with risk (from disasters and political uncertainties) has become an important consideration for supply chains. While it is difficult to compare logistics costs across countries due to the different methodologies used, comparisons with country's using similar methodologies points out that the logistics costs to the South African economy is significantly higher than in most other middle income countries. A comparison with Brazil highlights that even the costs associated with rail are significantly higher in South Africa, which is an important factor in the debate on road versus rail freight (CSIR, 2012).

It has become evident that freight volumes at Durban are growing faster than the local or national GDP growth. In fact freight growth has been consistently almost double GDP growth, which is largely a global phenomenon caused by the specialisation of economies. Considering South Africa's high cost structure and vulnerability to transport costs, this trend poses a threat to the sustainability of current transport systems. In particular corridor transport saw the largest growth in terms of tones, increasing by 7.4%. The greatest growth in terms of tonne-km was observed for metropolitan road freight, which increased by 6.1%. Without intervention, the country may face a crisis in freight volume and road capacity which would be similar to the energy sector crises, of demand volume outstripping supply. Such a scenario will result in ripple effects in the economy and job losses (CSIR, 2012).

South Africa's competitiveness in international markets has been strongly dependent upon the costs and efficiency of its maritime supply chains for the export of commodities and raw materials. The supply chain is made up of multiple modal links which are managed to achieve 'just in time' delivery as an essential requirement of their cost efficiency. The movement of cargo in the Durban port is one of the most important links in the South African maritime supply chain, barriers or challenges on the development of the port and the consequent disruption in the functioning of the chains will have an impact on both the local and national economies. In South Africa there is a tendency to associate supply chains with the distribution and acquisition of goods, for successful competition in global markets requires production to be integrated into supply chains that begin with the acquisition of raw or input materials and terminate with the delivery of products to consumers. The manufacturing firms that compete successfully globally are efficiently integrated in supply chains in which production is only one activity in the chain. The most successful integration is achieved when all the link providers in the chain contribute to the single purpose of delivering the product to the place where it is needed at the lowest cost, rather than serving their own ends as profit seeking third parties (CSIR, 2012).

The model integration of South Africa's maritime supply chain has not yet developed to the extent of those of many of the country's competitors in global markets. However the rise in exports by the local automotive industries in recent years is necessitating the efficient management of supply chains stretching through SA's ports from component manufacturers in several countries, to buyers of vehicles in other countries. It is important to emphasise that the routing of containerised cargo in supply chains is usually determined by liner companies in accordance with the economics of their logistics and not by the geographic hinterlands of the ports. Liner companies generally dictate the ports that they will use according to their business interests, and some container terminals built by port authorities worldwide have failed to attract traffic. Competition in the liner trade constantly requires these companies to be conscious of the advantages to

their business of the rapid and timely delivery of cargo. Thus, ports will often be chosen in relation to saving voyage time at the cost of longer overland transport if the cargo can be delivered more quickly. Shorter voyages enable savings in both the operating and capital costs of ships, and quick and reliable deliveries of cargo enable savings in the costs of inventory holdings by cargo owners (CSIR, 2012).

The trend in global trade is to put supply chains against each other and failure by countries to facilitate comparative international supply efficiency for their exporting industries impacts detrimentally on their economic growth. Ports are usually the most strategic link in these international supply chains and in the past few decades numerous stakeholders such as district councils, business and individuals have invested huge amounts in them. These partnerships have been formed to ensure seamless interfaces between shipping links, port terminals and land transport.

The hinterland of the Durban port has both geographic and with its transport link incorporates much of South Africa's adjacent countries to the north and in accordance with global trends should be developed as the major link in efficient international supply chains of containerised cargo serving South Africa. It becomes necessary therefore to have substantial investment not only in the port, but in countrywide rail and road links that enable cargo to move seamlessly and rapidly through the port terminal.

According to Transnet (2012) it is estimated that 65% of current South African imports and exports of general cargo is believed to move through the Port of Durban, most of it in door to door supply chains managed by logistics providers mainly being liner companies. The port has never functioned efficiently as the key link in the supply chain needed to promote growth because of the frequent delays to shipping that have persisted for many years. These delays have several causes including, the unscheduled bunching of ship arrivals. The effect has been to preclude the tight, reliable and punctual scheduling necessary for international supply chain efficiency (CSIR, 2012).

The automotive industry is one sector in which international supply chains are required to deliver components just-in-time. Many of these are structured to link vehicle manufacturers in Gauteng by rail from other ports, although Durban is better located for that purpose. Durban is potentially the port through which all South Africa's major maritime supply chains of containerised products between the interior and suppliers or customers overseas should be linked. Supply chains that have diverted through other ports will revert to Durban if seamless, punctual and reliable cargo flows can be assured. Unlike their European counterparts South African customers are yet to benefit both from the economies of scale achieved by the integration and from the enhanced value of the place and time utility of the goods carried, attributable to the reliability and punctuality of the transport. Those qualities depend in the first instance on the ability of port terminals to ensure that

cargo moves between ship and land and through the port in a smooth manner.

This seamless movement of containers through the port is indispensable to efficient supply chain operation. The problem at Durban Container Terminal is that it takes a long time to remove containers from the quayside and the lower rate of throughput results in congestion. By increasing the number of cranes as well as the rate of container removal by employing cranes and trains departing quickly in succession, the capacity of ten container berths should be adequate to accommodate at least twice the throughput.

The interception of exports from elsewhere in South Africa by local industries for final processing provides additional scope for supply chain structuring that can establish local industries as global competitors. The characteristics of the supply chains needed for that purpose are reliable delivery of the processed goods at the final destination at pre-arranged times. Apart from delays in the berthing of ships and the handling of containers at the container terminal, slow customs procedures, road traffic congestion, inadequacies in the supply of rail services and a lack of reliable electronic data transfers facilities as well as interruptions in power and water supplies are all impediments to the efficient functioning of supply chains. Without such deficiencies Durban and its environment have the potential to rival the major processing regions of the world. These regions depend on upon the proximity of container terminals as links in supply chains that vie for leadership in throughput efficiency, it could be in the interests if the local community to support that happening. Recognising these issues the joint leadership of the Port and City initiated the TEMPI process in 2006.

## *The TEMPI process*

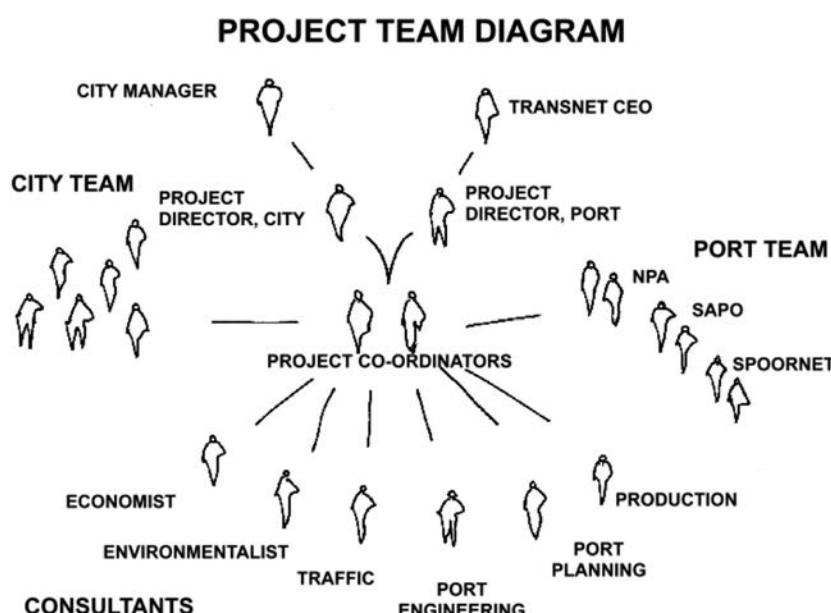
Recognising the problem between the two organisations was the first step in coming together to form a joint process to work together going forward in the interest of the region and the country given Durban's gateway status. Once again the process was driven by two personalities, Ms Maria Ramos (Group CEO Transnet from 2004 to 2009) and Dr Michael Sutcliffe (eThekwini City Manager from 2003 to 2012). Recognising that there were joint challenges facing both organisations in growing the regional and national economies through job creation and increased trade as well as supply chain capacity constraints (port, road, rail and pipeline) a joint planning approach was formulated to assist in maximizing benefits and opportunities while reducing conflict/wasted resources.

The TEMPI process was guided by the following principles:

- a joint eThekwini Municipality / Transnet initiative
- locally (at Port / City level) initiated and driven
- cofounded by both parties
- supported by City and Transnet management

- a fast-tracked project of limited duration
- dual policy direction from the Port and City
- integration by Project Co-Ordinators to ensure joint planning of scenarios
- appointment of consultants to undertake specialist studies and evaluations
- incorporation of in-house Port and City staff into the project team
- focused and targeted consultation of key stakeholders and roleplayers
- delivering a framework for decision making
- leading to a unified masterplan for the future of the Port and City of Durban

**Figure 1: TEMPI project team structure**



Project TEMPI aimed to develop a framework to inform independent decision-making, based on a shared vision and understanding of future development requirements of the port and the city. This was required as in the past, port planning and city planning had occurred in isolation of each other, resulting in a lack of synergy and occasional conflicts.

The objectives of the two parties differ and can be summarised as follows:

- Transnet's objectives are to reduce the total logistics cost of doing business in South Africa by optimising the development of the port system and rail network from a national perspective.
- eThekwin municipality's objectives are to maximize the benefit of the port for its citizens in the local economy by optimising the operations and development of the port and its integration into the city.

## *TEMPI Process and Objectives*

The TEMPI process centred on the production of specialist analyses by consultants for various sectors focused on a set of key questions/issues:

- Economic, producing economic analysis of the national, regional and local role of the port, economic imperatives for its future development, and optimal economic activities in the port
- Port engineering, analyzing port capacity, and exploring options for port expansion.
- Environment, assessing the environmental constraints on development of the bay
- Traffic and transport, assessing current and future transport impacts of port development.
- Port and precinct planning, assessing the potentials for the re-use of port land along the Point and Victoria Embankment waterfronts to improve port-city interfaces.

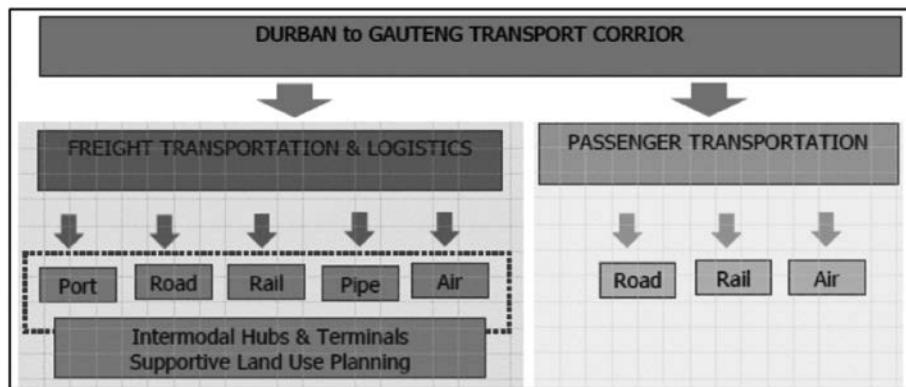
Each workstream consisted of a Municipal and Transnet representative who were required to work closely with sector consultants.

The resulting outputs from these joint specialist studies were a set of potential future trajectories for the development of the Durban port system. The work which had essentially been inward focused, however the development of the Port of Durban cannot occur in isolation and so it became clear that what was required was integration within the regional economy and as has been pointed out because of Durban importance in South Africa, how these plans integrate into the National economy. The TEMPI project changed into a regional driven approach however using the impetus and findings derived from the TEMPI process into the region. The project became the “2050 vision for the Durban to Gauteng Freight corridor”.

## *2050 vision for the Durban to Gauteng Freight corridor*

The 2050 vision provides an integrated solution to the growing expansion requirements of the Durban to Gauteng freight corridor which will form the foundation for the establishment of a Southern African regional freight network. The Durban to Gauteng freight corridor consists of the following key developmental components (Figure 2):

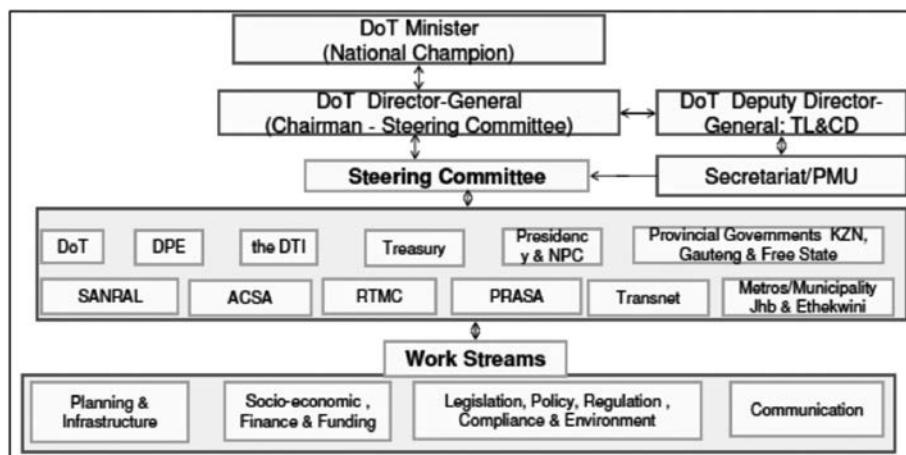
- The Port of Durban
- The Durban-Gauteng road corridor
- The Durban-Gauteng freight rail corridor
- Strategically located logistics hubs and terminals
- Supportive local land use plans

**Figure 2:** Elements of the 2050 corridor.

The vision was driven by three major phases of port development:-

- Phase 1: 2010-2020 (current expansion plans for Durban)
- Phase 2: 2020-2040 (Airport site development)
- Phase 3: 2040-2050+ (Bayhead development)

To manage the process a multi stakeholder forum was developed as shown in Figure 3.

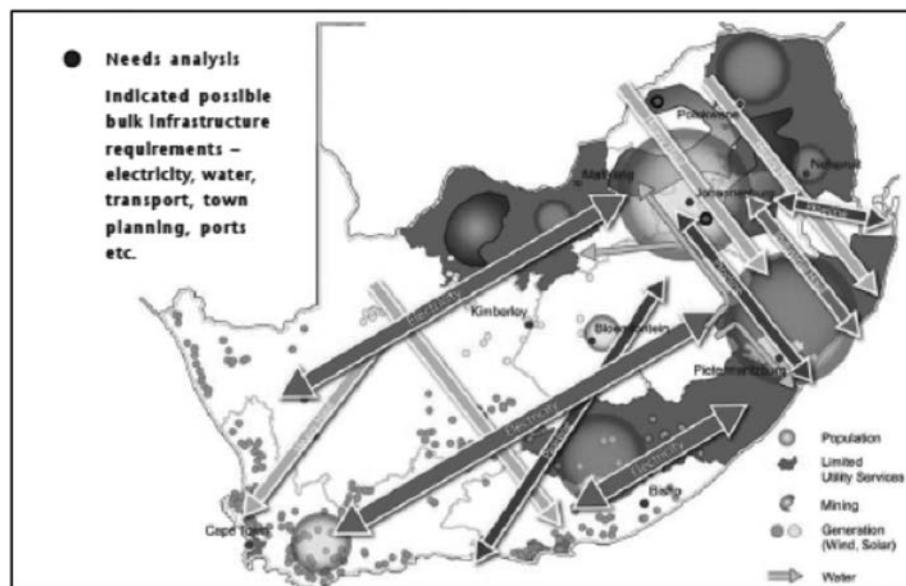
**Figure 3:** Institutional framework

The 2050 vision for the Durban to Gauteng Freight corridor was presented to the newly formed National Planning Commission and endorsed as a key national imperative. Now that the project had gained national significance because of its potential positive impact of jobs and economic growth for the country it became a consideration for a Strategic Investment Project (SIP).

## *The Strategic Integrated Projects (SIP) programme*

The Presidential Infrastructure Coordinating Committee (PICC) was charged with developing a set of key infrastructure driven project to revitalize the South African economy. The National Infrastructure Plan (2013) identified 18 Strategic Integrated Projects across South Africa. These projects were identified to promote balanced economic development, unlock economic opportunities, promote mineral extraction and beneficiation, address social-economic needs and job creation and help integrate human settlement and economic development.

**Figure 4:** Needs analysis for South Africa.



From a needs analysis of South Africa (Figure 4) it was clear that the Durban-Gauteng corridor was a major element in the county's economic infrastructure and this led to the Durban-Gauteng corridor project becoming part of the SIP programme **SIP 2: Durban-Free State-Gauteng logistics and industrial corridor.**

Again the project was widened to incorporate another province (Free State) and broaden to include industrial activities as well as the aerotropolis around the new King Shaka airport. From a governance point of view the project now fell under the PICC chaired by the President and very much driven at a National level. The range of organisations represented had now increased to over fourteen government entities comprising all three spheres of government.

## *Lessons learnt*

From these processes some key lessons have emerged:

- Local initiatives are vital in making government at the highest level aware of key problems and opportunities
- Large multi sectoral projects are complex and have significant lead times which need to be tightly managed if these projects are to be delivered on time.
- Strong, visionary leadership is critical in brokering deadlocks during the process.
- Identifying champions, preferably by name, in each institution and making them accountable for performance.
- Dedicated coordination resources to management the administration and consultation programme.
- Scarce resources in some sectors require human development ahead of these processes and beyond into the operational phases of these projects
- In the Engineering sector, some options to retain skills are to increase immigration, reduce early retirements, extend age of retirement and actively bring back those whom had left the industry.
- Develop a skills framework

## **Conclusion**

The project is still ongoing at the time of writing and while significant steps have been taken to elevate this project high up onto the National agenda there is still much to be done to finalise this project. Despite this there is now a far better and deeper understanding of the needs and desirability for this project at all three levels of government. Institutionally the project had morphed from an inward locally driven project to one that is now driven by the country's first citizen and endorsed by over fourteen governmental institutions. The project is planned to roll out over the next 3 decades and with a strong institutional basis from which to work there are high expectations that this will be a success.

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### **Capsule professionnelle 3**

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## **La Gobernanza puerto-ciudad en España**

*José Llorca Ortega*

*Presidente - Puertos del Estado  
Madrid - España*

## **Biographia**

*Nacido en Ripoll (Girona), el 23 de Agosto de 1958. Casado con un hijo. Ingeniero de Caminos, Canales y Puertos por la Universitat Politècnica de Catalunya (1982) y Funcionario de carrera de la Escala de Técnicos Facultativos Superiores del Ministerio de Defensa (1986).*

*Ha ocupado diversos cargos en los Ministerios de Defensa y de Fomento. En este último en la Dirección General de Puertos y Costas, en la Dirección General de Puertos y en Puertos del Estado.*

*Ha participado en el Grupo de Puertos de la Unión Europea (Port Working Group), así como en el Grupo de Expertos de Dragados de la London Dumping Convention de la Organización Marítima Internacional (OMI). También ha sido Secretario de la Asociación Española de Puertos y Costas (1990-2000) y miembro del Comité de Finanzas de la Asociación Internacional de Navegación (AIPCN-PIANC).*

*Ha sido Director del Programa ROM de normalización en el ámbito de la planificación, proyecto, ejecución y explotación de los puertos, habiendo sido Ponente de varias de las Recomendaciones incluidas en dicho Programa. Participa como experto en diferentes grupos de trabajo internacionales en el ámbito de las infraestructuras portuarias y del transporte intermodal.*

*Ha sido miembro del Consejo de Administración de la Autoridad Portuaria de Marín y Ría de Pontevedra y de la Autoridad Portuaria de Las Palmas. En el periodo 2000-2004 ha sido Presidente de Puertos del Estado y Presidente de la empresa pública PORTEL. En este periodo ha sido responsable del anteproyecto de Ley de Régimen económico y de*

*prestación de servicios en los puertos de interés general, aprobado posteriormente como Ley 48/2003, que representó un gran avance en la liberalización y en la mejora de la competitividad del sector portuario español.*

*Es codirector del Máster de Transporte Intermodal de la Universitat Politècnica de Catalunya y profesor de numerosos másters y cursos de especialización en las Universidades Politécnica de Madrid, de Catalunya y de Granada en el campo del transporte intermodal y de la actividad portuaria. En el marco de su actividad docente es autor de varias publicaciones sobre política de transporte, sobre las infraestructuras portuarias y sobre la explotación y operativa de las terminales intermodales. Ha sido asesor del Grupo Parlamentario Popular en el ámbito de la Comisión de Fomento durante la IX Legislatura (2008-2011), participando activamente en la consensuada Ley de Reforma de la Ley de Puertos.*

*Desde enero de 2012 es nuevamente Presidente de Puertos del Estado. También es presidente de las Sociedades Públicas Mercantiles PORTEL, S.A. y Puerto Seco de Madrid, S.A., así como Vicepresidente de la Sociedad Jaizkibia para la regeneración de la Bahía de Pasaia. Es Consejero de SASEMAR, del Consorcio Copa América y miembro del Consejo del CEDEX.*

## Introducción

**Gobernanza:** Arte o manera de gobernar que se propone como objetivo el logro de un desarrollo económico, social e institucional duradero, promoviendo un sano equilibrio entre el Estado, la sociedad civil y el mercado de la economía. (Diccionario de la Lengua de la Real Academia Española).

La relación entre los puertos españoles y las ciudades que los acogen ha vivido en los últimos años una fuerte transformación, la cual se enmarca en unas circunstancias que, si bien en algunos casos son compartidas con otros países, fundamentalmente del arco Mediterráneo, se distinguen fuertemente de la evolución sufrida en gran parte de los puertos del mundo, en concreto, los puertos del norte de Europa o Estados Unidos.

Estos últimos, en general puertos fuertes ya en el siglo XIX, comenzaron su adaptación a los nuevos medios de explotación portuaria varias décadas antes que los puertos españoles, buscando una nueva ubicación, es decir, la actividad portuaria más industrial se ha desplazado y alejado de la ciudad donde se encontraban enclavados.

Por el contrario, la circunstancia fundamental que ha marcado el desarrollo portuario español y la relación con sus ciudades es el hecho de que, si bien existen excepciones como es el caso de Barcelona o Bilbao, los puertos españoles hasta ya avanzada la segunda mitad del siglo XX, eran puertos de pequeño o mediano tamaño.

El fuerte crecimiento de los tráficos en los puertos españoles se ha vivido en los últimos veinte años, los cuales, consecuentemente, han duplicado su superficie en los últimos quince años, pasando de 5.255 ha en el año 1999, a un total de 10.592 ha de superficie portuaria en el año 2011.

La presión inmobiliaria existente sobre la costa española, así como la necesidad de preservar los escasos enclaves naturales de nuestra costa han dificultado y, en general, imposibilitado, el traslado de la actividad portuaria a otras áreas, por lo que los puertos españoles han tenido que crecer sobre sí mismos, apoyándose en las antiguas infraestructuras enclavadas en los núcleos históricos de las ciudades.

De este modo, la existencia de un contacto físico tan íntimo del puerto con su ciudad, afectando en muchos casos a los núcleos históricos de las mismas, requiere de actuaciones concretas y constantes en muy diferentes ámbitos, que permitan la convivencia de dos realidades a veces antagónicas, la ciudad y el puerto.

Si bien todas ellas se encuentran fuertemente interrelacionadas, podríamos distinguir dentro de estas actuaciones dos grandes grupos: aquellas que dan lugar a una transformación física del puerto, y, consecuentemente, de la ciudad, entre las que destacaremos la mejora de los accesos terrestres a los puertos y la reordenación de actividades portuarias, con el fin de generar espacios accesibles al ciudadano; y aquellas otras, de algún modo “invisibles” que permiten el desarrollo sostenible de la actividad portuaria, centrándonos en las actuaciones medioambientales y en aquellas encaminadas al fomento de la transparencia y el conocimiento del puerto por parte de su entorno.

## *Actuaciones de transformación*

En los puertos confluyen el transporte por mar, carretera y ferrocarril, permitiendo el desarrollo de cadenas integradas de transporte marítimo-terrestre. La eficiencia global del puerto está condicionada, por tanto, por la eficiencia con que son coordinados los diferentes modos de transporte que confluyen en el puerto.

La configuración habitual de nuestros puertos sitúa su centro neurálgico en el centro histórico de la ciudad, gravitando sobre él, el desarrollo de las nuevas

infraestructuras. De este modo, ciudad y puerto se han visto durante años obligados a compartir viales que, si bien en algunos casos podrían tener un origen portuario, a día de hoy tienen todas las características de vías urbanas.

El hecho de que en algunos puertos como Barcelona o Valencia, el tráfico por carretera generado por la actividad portuaria se triplicara entre los años 1990 y 2000, habiéndose duplicado en otros, como Gijón o Vigo, convirtieron la situación en insostenible.

La búsqueda de soluciones a los problemas ambientales, de congestión, y de ineficiencia de la actividad portuaria creados por estructuras viarias insuficientes, si bien no depende exclusivamente de las Autoridades Portuarias, es una realidad que han sido éstas, junto al Ministerio de Fomento, quienes han liderado la gran mayoría de actuaciones.

En este sentido, ambos, Autoridades Portuarias y Ministerio de Fomento, han llevado a cabo un enorme esfuerzo inversor, en ocasiones compartido por las administraciones autonómicas, que ha permitido la ejecución de accesos directos a los puertos desde las vías de alta capacidad, un nuevo impulso al transporte de mercancías por ferrocarril, y la ejecución de nuevos viales interiores que han permitido separar, en gran medida, el tráfico portuario del tráfico urbano.

De este modo, en los últimos cinco años, y a pesar de la crisis económica sufrida en nuestro país, el volumen de inversión de las Autoridades Portuarias aplicado a la mejora de los accesos terrestres de sus puertos, no sólo no se ha reducido, sino que no ha dejado de crecer, alcanzando en 2012 la mayor cifra de su historia, con un total de ochenta y dos millones de euros.

Sin ánimo de ser exhaustivos, dado que este tipo de actuaciones se han llevado a cabo en prácticamente todos los puertos españoles, citaremos proyectos como el del acceso norte al puerto de Algeciras, inaugurado en 1999, el cual permitió la conexión directa del muelle del Navío con la zona norte de la ciudad, por medio de una solución en puente, o el eje transversal de Tarragona y la eliminación posterior en este mismo puerto del tráfico de camiones que atravesaba el barrio del Serrallo y el Moll de Costa, mediante la construcción de un puente móvil entre los muelles de Reus y Lleida.

Del mismo modo, en el año 2004 se firmó un convenio entre la Autoridad Portuaria de Santander, Puertos del Estado, el Gobierno de Cantabria y el Ayuntamiento de Santander, que permitió liberar los tráficos intraportuarios del muelle norte de la dársena de Maliaño y la calle Marqués de la Hermida.

En el caso de Santa Cruz de Tenerife, cuyos problemas de colmatación de la red se ven agravados por la configuración física de la ciudad, se encuentra en estos momentos en ejecución la denominada Vía Litoral. Fruto de una acuerdo entre la Consejería de Infraestructuras, Transportes y Vivienda del Gobierno Canario,

el Ayuntamiento de Santa Cruz de Tenerife y la Autoridad Portuaria de Tenerife, permitirá dar fluidez al viario de circunvalación de la Isla, así como la mejora de la fachada marítima de Santa Cruz, ahora ocupada por una vía que ejerce de barrera entre la ciudad, el puerto y el mar.

En relación con el segundo tipo de actuaciones que suponen una transformación física del puerto y la ciudad, esto es, la reordenación de las actividades portuarias que permiten la transformación de los frentes marítimos históricos y su apertura al ciudadano, debemos decir que son, sin duda, las más visibles y conocidas, si bien no siempre son las más importantes para el desarrollo sostenible de la actividad portuaria.

No obstante lo anterior, por el número de agentes implicados, y la necesidad de tramitar una serie de instrumentos que ordenen los distintos ámbitos competenciales, se trata, en general, de las operaciones más complejas, donde la participación ciudadana es más activa y el acuerdo entre administraciones, más necesario.

En el caso español, lo primero que debe señalarse es que los espacios portuarios donde se desarrollan los proyectos que se describirán más adelante son, mayoritariamente, bienes de dominio público de titularidad estatal adscritos a las Autoridades Portuarias.

Dichos espacios y su ordenación fueron, hasta el año 1978, fecha de la aprobación de nuestra actual Constitución, competencia exclusiva del Estado, llegando en algunos momentos a cuestionarse su pertenencia al término municipal en el que se asentaban.

La Constitución estableció un nuevo modelo por el cual el Estado mantenía sus competencias en materia de puertos de interés general, pero otorgaba a las Comunidades Autónomas la competencia exclusiva en materia de ordenación del territorio y urbanismo.

Sin un desarrollo normativo que lo regulara debidamente, este modelo fue, en los años 80, fuente de grandes conflictos entre los puertos y sus ciudades. El puerto se resistía a permitir que las administraciones autonómica y local interviniieran en ninguno de sus ámbitos, y los ayuntamientos deseaban ordenar el conjunto de su término municipal, incluyendo la zona de servicio portuaria. Muchos de estos conflictos, como el sufrido por el puerto y la ciudad de Santander, llegaron a los tribunales, con una gran difusión mediática.

Finalmente, la Ley 27/1992, de 24 de noviembre, de Puertos del Estado y de la Marina Mercante, refrendada por la Sentencia del Tribunal Constitucional 40/1998, de 19 de febrero, estableció las bases para ordenar las distintas competencias concurrentes sobre el espacio portuario.

Este modelo, si bien se ha visto modulado por las modificaciones legislativas posteriores, se mantiene en lo esencial desde entonces y se basa en lo siguiente:

- El Ministerio de Fomento aprueba, a propuesta de la Autoridad Portuaria correspondiente, y tras una amplia tramitación, durante la cual es sometida al trámite de información pública, y en la que tienen audiencia todas las administraciones afectadas, la denominada Delimitación de Espacios y Usos Portuarios. Este instrumento delimita la zona de servicio portuaria y establece las actividades, que, desde el punto de vista de la explotación portuaria, son admisibles en cada una de sus áreas funcionales.
- El Plan General de Ordenación Urbana, de ámbito municipal, debe calificar esta zona de servicio como sistema general portuario, no pudiendo incluir determinaciones que afecten a la explotación portuaria.
- Dicho sistema general portuario se desarrolla urbanísticamente por medio de un Plan Especial de Ordenación, acorde con la Delimitación de Espacios y Usos Portuarios ya aprobada. Este Plan lo formula la Autoridad Portuaria, pero es tratado y aprobado por la autoridad urbanística correspondiente. En el caso extremo de que la Autoridad Portuaria manifestara disconformidad con la propuesta resultante de la tramitación, ésta no podría ser finalmente aprobada.
- Dicho esto, y sin perjuicio de que la estructura creada haya permitido aclarar los ámbitos competenciales de cada una de las administraciones implicadas, la complejidad y el impacto de las actuaciones a realizar, así como la necesidad de coordinar cada ámbito competencial hacia un objetivo común, requiere siempre de un acuerdo previo entre las distintas administraciones, el cual se regula habitualmente por medio de un convenio suscrito entre las partes.

No obstante lo anterior, en España cabe destacar el hecho de que los espacios que se abren al ciudadano mantienen, en general, una utilidad portuaria y, en último caso, son espacios frontera entre la ciudad y la actividad portuaria y logística que requiere el tráfico de mercancías.

Desde un punto de vista de la planificación y la gestión de los proyectos, podemos distinguir dos etapas. La primera, restringida al reducido número de puertos que acometieron las primeras obras de ampliación, se caracteriza por ser el mayoría de los casos el puerto quien, sin perjuicio del acuerdo alcanzado con otras administraciones, lleva la iniciativa, gestiona y financia en su mayor parte la operación.

Por el contrario, en la última década el fenómeno se generaliza al conjunto de los puertos españoles, existiendo una fuerte implicación en la concepción y gestión del proyecto, del conjunto de administraciones implicadas.

Asimismo, a medida que las actuaciones aumentan en complejidad, las inversiones necesarias para su puesta en marcha se incrementan exponencialmente (soterramiento de viarios, puentes móviles, nuevas bocanas...), no pudiendo caer el conjunto de dicha inversión exclusivamente sobre el puerto.

No siendo posible mencionar todos los acuerdos alcanzados para la ejecución de este tipo de proyectos, destacaremos como pionera la creación por el puerto de Barcelona en 1986 de la Gerencia Urbanística Port Vell para la gestión del desarrollo de este área. El planeamiento que permitió su desarrollo fue aprobado por el puerto, el Ayuntamiento de Barcelona y la Generalitat, y supuso la reconversión de 55,6 Ha. de superficie portuaria.

En el puerto de Valencia, la idea de abrir la dársena interior a la ciudad parte del acuerdo alcanzado en 1986, entre el Ayuntamiento y el puerto de esa ciudad, con objeto de facilitar la ampliación Sur del puerto de Valencia.

Ejecutadas las obras de ampliación, el Ministerio de Fomento, la Generalitat Valenciana, el Ayuntamiento de Valencia y la Autoridad Portuaria de Valencia, suscribieron en 1997 el denominado "Convenio Balcón al Mar", el cual debió ser paralizado por la presentación de la candidatura de Valencia para la celebración de la 32 edición de la America's Cup.

Con ocasión de este evento, las administraciones implicadas firmaron un nuevo acuerdo por el que se creó el denominado Consorcio Valencia 2007, organismo participado por todas ellas, el cual fue el encargado de desarrollar los trabajos necesarios para su celebración.

La expansión del puerto de Cartagena hacia la dársena de Escombreras hizo posible la redacción del "Plan de Integración Puerto-ciudad", fruto del Convenio suscrito en 1990, entre el Puerto de Cartagena y el Excmo. Ayuntamiento de esa ciudad.

Poco después del proyecto del Port Vell, en el año 1992, el Ayuntamiento de Vigo, el puerto y el Consorcio Zona Franca suscribieron un convenio, cuyo fin era la peatonalización de espacios portuarios, la ampliación de los jardines existentes, facilitar el tráfico rodado por medio de dos nuevos túneles, y la construcción de un centro comercial y un área de oficinas. La Zona Franca de Vigo se hizo cargo de las obras y su financiación, cuyo pago le corresponde a la Autoridad Portuaria, mediante la aportación de los ingresos obtenidos por la explotación de la zona durante 50 años.

Otro ejemplo de éxito es el denominado Moll de Costa, en el puerto de Castellón, el cual supuso la transformación de 52.500 m<sup>2</sup> del antiguo muelle comercial. Tras la eliminación de la valla que aislaba el puerto y la inauguración en 1995 de la Plaza del Mar, la Autoridad Portuaria planteó el proyecto denominado "Moll de Costa, «Una puerta abierta al Mar», el cual contó con la colaboración de los Servicios Técnicos de la Comisión Urbanística del Port 2000 (luego Port Vell) de Barcelona.

Como ejemplos más recientes podemos mencionar la aprobación en el año 2001 del Plan Especial de la Nueva Bocana del puerto de Barcelona, entre cuyos objetivos se encontraba el eliminar la interferencia entre el tráfico marítimo generado en el Port Vell y el tráfico comercial de los muelles exteriores, acortar

los tiempos de salida y entrada de los Ferrys rápidos con base en Port Vell y completar la ordenación del Port Vell.

En el caso de Málaga, la aprobación en noviembre de 2004, tras muchos años de desacuerdo, del Plan Especial de Ordenación, permitió la integración urbana de los muelles 1 y 2, manteniendo en el área actividades portuarias como el tráfico de cruceros, el atraque de cruceros turísticos y el atraque de grandes yates.

Con la misma filosofía que Barcelona y Málaga, la Autoridad Portuaria de Santa Cruz de Tenerife planteó el Concurso Internacional de Ideas para la Ordenación del Muelle de Enlace, siendo el ganador el proyecto presentado por los arquitectos Herzog y De Meuron.

Dicho proyecto potencia la segregación de usos entre la dársena de Anaga y la de Los Llanos, incluyendo una Terminal de Cruceros, una Estación Marítima para Ferries, una gran marina y una zona de ocio y comercial con grandes espacios libres.

El planeamiento urbanístico para su desarrollo fue aprobado definitivamente en enero de 2006, pero en ese momento, el puerto ya había avanzado en el desarrollo de las nuevas infraestructuras portuarias, tales como los nuevos pantalanes para o la ampliación del dique central de La Marina, necesarios para su ejecución.

Como último ejemplo, mencionaremos el Convenio Interadministrativo de Colaboración suscrito en 2011 por el Ministerio de Fomento, el Gobierno de Cantabria, el Ayuntamiento de Santander, la Autoridad Portuaria de Santander y Puertos del Estado, para la reordenación urbanística del Frente Marítimo Portuario de Santander.

El proyecto, planteado como una operación «cerrada en sí misma», esto es, autosuficiente financieramente, abarcará 60 Has de superficie, de las cuales, tras la desafectación de una gran superficie portuaria, 33 mantendrán la condición de dominio público portuario.

## *Gestión medioambiental y fomento de la transparencia*

La gestión ambiental de los puertos españoles se encuentra condicionada por dos aspectos fundamentales. En primer lugar, la competencia en materia ambiental, de acuerdo con el modelo establecido en nuestra Constitución, recae, en general, sobre las Comunidades Autónomas, no siendo las Autoridades Portuarias responsables únicos de hacer cumplir la legislación ambiental en el puerto. En segundo lugar, el modelo de explotación público-privada del puerto, introduce un gran número de agentes implicados sobre los que las Autoridades Portuarias tienen un control limitado.

No obstante lo anterior, las Autoridades Portuarias, como gestores del espacio portuario, coordinadores de los servicios prestados por el puerto y líderes de la comunidad portuaria, desempeñan un papel clave en esta materia.

De este modo, más allá de las exigencias legales, los puertos españoles llevan años invirtiendo y trabajando en mejorar la calidad ambiental y social de las ciudades en las que se sitúan.

A modo de ejemplo, cabe señalar que la inversión en actuaciones medioambientales se ha visto incrementada a lo largo de los años, manteniéndose durante los años de crisis económica, y llegando, en el año 2013, a duplicarse respecto a los años anteriores.

Focalizada fundamentalmente en la mejora de las actividades de carga y descarga de graneles sólidos, procediendo a la reubicación de terminales, estableciendo sistemas de riego o pantallas cortavientos o implantando terminales cerradas de descarga como en los puertos de A Coruña y Santander, y en la mejora de los accesos terrestres ya comentados, la gestión ambiental de los puertos se ha ido ampliando a todos los ámbitos, trabajando sobre la calidad del aire, del agua, de los suelos, la gestión de residuos o la contaminación acústica.

Dicho esto, el trabajo desarrollado hasta ahora era el fruto de actividades independientes de las autoridades portuarias implicadas, algunas de las cuales han sido pioneras en su implantación.

Por el contrario, en los últimos años, dentro del marco establecido por la ESPO, e impulsado activamente por Puertos del Estado, el conjunto del sistema portuario, consciente de la necesidad de avanzar en este campo como pilar fundamental de la relación de cada uno de los puertos con la ciudad y la región donde se asientan, se ha dotado de una serie de instrumentos comunes que han permitido avanzar enormemente en la materia.

Para ello, el Real Decreto Legislativo 2/2011, por el que se aprueba el Texto Refundido de la Ley de Puertos del Estado y de la Marina Mercante (en adelante, Ley de Puertos), dota al sistema de una serie de mecanismos que permiten potenciar el concepto de sostenibilidad en los sistemas de planificación y gestión de las Autoridades Portuarias y, muy especialmente, en la mejora de la calidad ambiental de nuestros puertos y su entorno. De este modo, el nuevo texto legal avanza en dos direcciones paralelas y complementarias: la primera, de carácter normativo, la segunda, incentivando el desarrollo de buenas prácticas en materia de calidad, medio ambiente y responsabilidad social corporativa.

Entre las medidas de carácter normativo recientemente incorporadas, cabe destacar la obligación de que los Planes de Empresa, instrumentos clave de la planificación y gestión del sistema portuario español, los cuales deben ser aprobados anualmente por las Autoridades Portuarias y Puertos del Estado,

vayan acompañados de una Memoria de Sostenibilidad Ambiental, incluyendo aquellos indicadores establecidos por Puertos del Estado, que permitan integrar la gestión ambiental como parte activa de la gestión portuaria.

Asimismo, se marcó como objetivo global del sistema portuario la implantación de sistemas de gestión ambiental que permitieran objetivar y sistematizar las políticas medioambientales desarrolladas. Gracias a este impulso, si en el año 2010 sólo 9 de las 27 Autoridades Portuarias españolas contaban con un Sistema de Gestión Ambiental, ya en el año 2012, cuatro estaban dadas de alta en el exigente registro ambiental EMAS, 18 contaban con certificación ISO 14001 y en las restantes se encontraba en fase de implantación este último sistema de gestión.

Con un carácter igualmente normativo, y con el fin de que el conjunto de empresas y usuarios de los puertos incorporen la componente ambiental en el desarrollo de su actividad, se introduce la necesidad de imponer en los pliegos de prescripciones particulares de los servicios portuarios, la protección del medio ambiente y la contribución con la sostenibilidad, y se introducen las posibles medidas de carácter ambiental y de responsabilidad social corporativa ofrecidas, como criterio a valorar en los concursos abiertos para el otorgamiento de concesiones de dominio público. Así mismo, la Autoridad Portuaria podrá plantear una revisión de las condiciones o el rescate de la concesión por razones vinculadas a la protección del medio ambiente.

Con el fin de que no sólo las empresas de nueva implantación, sino todos aquellos agentes que ya forman parte de la comunidad portuaria, integren el factor ambiental en su gestión, se establecen igualmente incentivos, cuyas condiciones se encuentran reguladas por la Ley, que pueden ser de carácter económico para aquellos operadores que firman y cumplan convenios de buenas prácticas con las Autoridades Portuarias, o la posibilidad de prorrogar el plazo concesional para aquellos que lleven a cabo inversiones que sean de interés para mejorar la calidad ambiental de las operaciones portuarias.

## Conclusiones

De todo lo anterior, se puede concluir que la relación de un puerto con su ciudad es un concepto amplio que da cobertura a experiencias muy variadas y mucho más amplias que la mera reconversión de espacios portuarios en espacios urbanos. En este sentido, la experiencia española, marcada por el hecho de que gran parte de sus infraestructuras son de ejecución muy reciente, se ha orientado hacia la búsqueda de una convivencia real entre los usos ciudadanos y los portuarios, los cuales deben compartir un mismo espacio.

Dicha convivencia se enmarca en un entramado administrativo complejo, donde sobre un mismo espacio concurren distintos ámbitos competenciales: planificación y explotación portuaria, ordenación del territorio, urbanismo, seguridad, medio ambiente... dentro del cual, las Autoridades Portuarias deben ejercer el papel de coordinación y liderazgo.

El marco legal establecido en el año 1992, clarificó las relaciones entre la ordenación portuaria y el planeamiento urbanístico, permitiendo la incorporación de usos complementarios y de interacción con la ciudad en los puertos de interés general, conforme con el reconocimiento de la “unidad de gestión del puerto” por parte de la jurisprudencia constitucional. Asimismo, la última reforma de la Ley de Puertos aprobada en nuestro país ha supuesto un decidido impulso para la incorporación, con carácter normativo, en la planificación y gestión de los puertos de interés general, de criterios de sostenibilidad, avanzando particularmente en la mejora de la calidad ambiental y el fomento de la transparencia.

En cualquier caso, y a pesar de un ordenamiento jurídico que ordena claramente los distintos ámbitos competenciales, la complejidad de las distintas iniciativas y el gran número de agentes implicados, requiere de un amplio acuerdo entre las administraciones involucradas y de un importante volumen de recursos financieros. El reto en estos momentos es el de hacer frente a este tipo de actuaciones de la manera más racional y equilibrada posible.

La voluntad de diálogo, de colaboración y de compromiso, imprescindible para una correcta evolución de la convivencia del puerto con su ciudad, ha sido, y seguirá siendo, sin detrimento de la defensa de la actividad portuaria, la actitud de nuestras Autoridades Portuarias. Ambos intereses son compatibles y nuestra historia portuaria lo demuestra.



## **Capsule professionnelle 4**

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# **Port and City Governance - the case of Japan**

*Satoshi Inoue*

*Visiting Professor*

National Graduate Institute for Policy Studies (GRIPS)  
Tokyo - Japan

## **Biography**

**Satoshi Inoue** is a visiting professor of the National Graduate Institute for Policy Studies (GRIPS), Tokyo, Japan. He works mainly on logistics and supply chain planning, port development and management, and coastal zone management.

Having graduated from the Faculty of Urban Engineering, Tokyo University, he obtained a master degree from University of Washington, US and a doctoral degree from Tokyo University. He published a number of books and papers mostly in the field of port policy, development and management, urban waterfront redevelopment and coastal zone management.

Prior to joining GRIPS, he had served as the Secretary General the International Association of Ports and Harbors (IAPH) from 1999 to 2009, which is the only worldwide organization of port authorities with the membership of about 220 ports of 90 countries. He actively organized international efforts to tackle a range of global port issues and represented the world port community at numerous international forums. He was instrumental in launching an IAPH-assisted global platform for port climate activities, called the World Port Climate Initiative.

Before the SG of IAPH, he assumed various positions at the Japanese Ministry of Transport for over 30 years. He was also Executive Director, Port of Kitakyushu, from 1990 to 1993, the largest international port west to Port of Kobe, Japan. He was also engaged in overseas port projects in about 20 countries in Asia, Africa and Latin America. He worked for the Asian Development Bank in Manila, Philippines from 1980 to 1983.

# Introduction

A Japanese letter meaning a port, actually an ideogram called Kanji, is made up with two components implying a water-edge and a town respectively. As such, the basic concept of port in Japan literally represents a town on the water. Therefore, ports in this country have long been and still are not only an interface between shipping and other transport modes, but also a central place for port cities to grow seawards. This duality of missions has made Japanese ports quite different from those in other countries and rather unique both physically and institutionally.

## *Small country, long coastline*

### **Geographical settings**

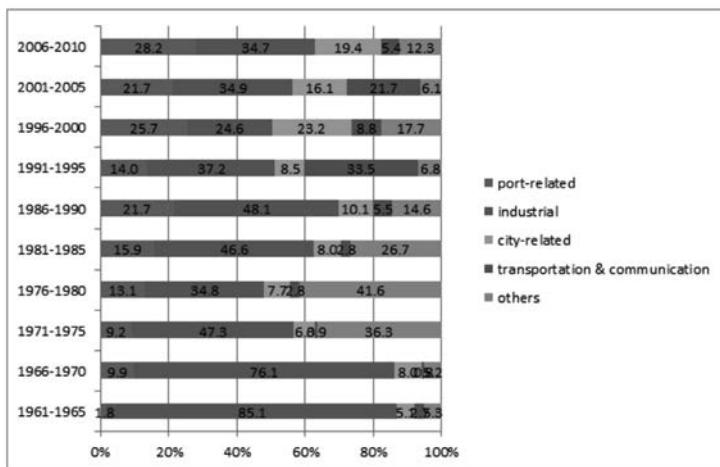
To better appreciate the context of port management in Japan, it is worthwhile to begin with a brief description of major backgrounds affecting ports in this country. Japan is an archipelagic country consisting of more than 3,000 islands, including four main islands. Consequently, despite the smallness of the country's land area, it is endowed with an extremely long and intricate coastline. For example, while its land area of 377,000 km<sup>2</sup> is about 60% of France and 80% of the State of California, US. , its coastline of 33,000 km is more than four times longer than France and about half the entire United States excluding Alaska.

In addition, the country is so mountainous that only 30% of the total land area is estimated as inhabitable and suitable for a range of human activities. (Figure1)

Furthermore, such inhabitable land is mostly found in small plains along the country's coast. The reminder is only scattered along inland river valleys and basins. As a result, most of the major cities are developed on the coastal plains, where major ports of this country are located. According to the 2010 census, 21 of 29 cities with populations over 500,000 are all on the coast or in the suburb of coastal cities.

### **Demographic and economic densities**

Another important factor to be kept in mind is the significantly high density of both population and economic activities, as shown in Table-1. With a population of 127 million in 2013, Japan's population density is 349/ km<sup>2</sup>, which is as three times high as France (121/ km<sup>2</sup>) and nearly 10 times the US (35/ km<sup>2</sup>). As a true measure of population density, the population density per inhabitable land of Japan (1,162/km<sup>2</sup>) is even much higher than that of the most crowded countries in Europe such as the Netherlands (559/km<sup>2</sup>) and Belgium (477/km<sup>2</sup>).

**Figure 1 : Uses of Port Reclaimed Lands (1961-2010)**

Source : compiled from data of Ministry of Land, Infrastructure, Transport and Tourism

Also in terms of economic density as measured by GDP/ inhabitable land, Japan (\$45million/km<sup>2</sup>) is the highest among major countries in the world. Population and economic activities of such an unparalleled density have been built up mainly on the country's coast, where most of inhabitable land is available and ports are developed. Thus tremendous pressures are exerted on the coastal land in general and port areas in particular.

## International trade

Japan lacks domestic natural resources, including inhabitable land. Japan only produces marginal quantities of major metal ores and hydrocarbon resources. Therefore, Japan heavily depends on a huge import of raw materials for domestic production and also daily life of people. For instance, more than 90% of energy and more than 60% of foods are imported from overseas. And much of industrial products are exported to the world market. Almost all this trade is maritime borne, thus major heavy industries are located on the coast, virtually all in ports of the country.

In 2011, Japanese ports handled a total of import and export cargos of 1, 230 million tons, comprising liquid bulk of 400 million tons or 32% (crude oil 15%, LNG/LPG 13%, petro products 4%), dry bulk of 440 million tons or 36% (coal 14%, iron ore 11%, grain 2.3%), container cargo of 250 million tons or 21% and others like automobiles and large machines of 140 million tons or 11%. In addition, Japan's ports handled domestic cargos of 1,560 million tons, which accounts for 32% of the total freight of the country, on a ton-km basis. Therefore, the country could not have economically grown nor even sustained at all without efficient services of the ports all along its coast.

## *Port management system*

### **Port management body**

Major ports in the world being mostly corporatized today, it might be a surprise that ports of Japan are managed as part of local administration. They are tool port where both infra- and super-structure are provided by port, leaving terminal operations with private companies. Against the backgrounds discussed above, however, the Japanese ports have to play a uniquely versatile role. It is exactly for this versatile role that ports remain considered in Japan to best serve their local communities as an integral part of local administration. In other words, the management of a port in this country has to be responsible for more than marine terminals and logistics development.

The Ports and Harbors Act (the Act) places the primary responsibilities of managing a port upon a “port management body” (PBM) established by a local government, either prefecture or municipality, having jurisdiction over an area where the port in question exists. Most of them are an internal department or division of the local government’s administration system. In some cases, however, PBM is jointly established by the concerned prefectoral and municipal governments. There is no port managed by the national government, which are restricted in role to setting out national port policy, guidelines and regulations; overseeing individual ports’ long-term planning; and financing implementation.

### **Port lands and waters**

Under the provisions of the Act, the geographical extent of a port’s jurisdiction consists of land and water areas. The land area of a port is determined through collaboration by PMB and other departments, taking into consideration future spatial demands both from the port itself and the city as a whole. Once decided, under the City Planning Act, it is incorporated as a “port district” into the port city’s entire zoning system. Then, PMB sets out sub-zoning of its port district to more precisely guide permissible types of land use in conformity with its port master plan. Any development in the port district, by public or private, is required to obtain a permit issued by PMB.

The water area of a port is delineated as “harbor limit” under the Act by the PMB with approval of the Ministry of Transport (MOT), which needs to be wide enough to accommodate future demands for various activities envisaged by the PMB. While all the water area along the country’s coast is managed by the national government, PMB is delegated to manage water area within its harbor limit. Thus, any reclamation work within the harbor limit must obtain a permit from PMB subject to conformity to its port master plan.

## Port planning and implementation

Since 1973, it had become an obligation of PBM to develop a master plan, conforming to the national port policy and planning standards as laid down by MOT. Also must be prepared an environmental impact assessment. To reflect views of local community, including fishery cooperative associations, PBM has to make public a draft master plan for their comments. A lengthy process of consensus is also required with concerned internal departments as well as ministries of the national government. Such consensus, however, is a key to success when it comes to implementation. Finally PMB should refer its plan to MOT. Under the Act, MOT has to review it with the National Transport Council but can only make recommendation to PMB for change, if any.

When it comes to actual construction of port facilities, a cost sharing scheme is applied between the national and local governments. These investments include breakwaters, channels, port roads and terminal facilities, which are not necessarily required to recover with user charges. As a tool port, PMB provides cranes and transit cargo sheds, which are financed by PMB with its bonds and recovered with user charges. As for the cost of land reclamation, it is also financed by PMB with its bonds and recovered through the sales of reclaimed lands.

## *Port as seaward expansion of mother city*

### Land reclamation in Japanese ports

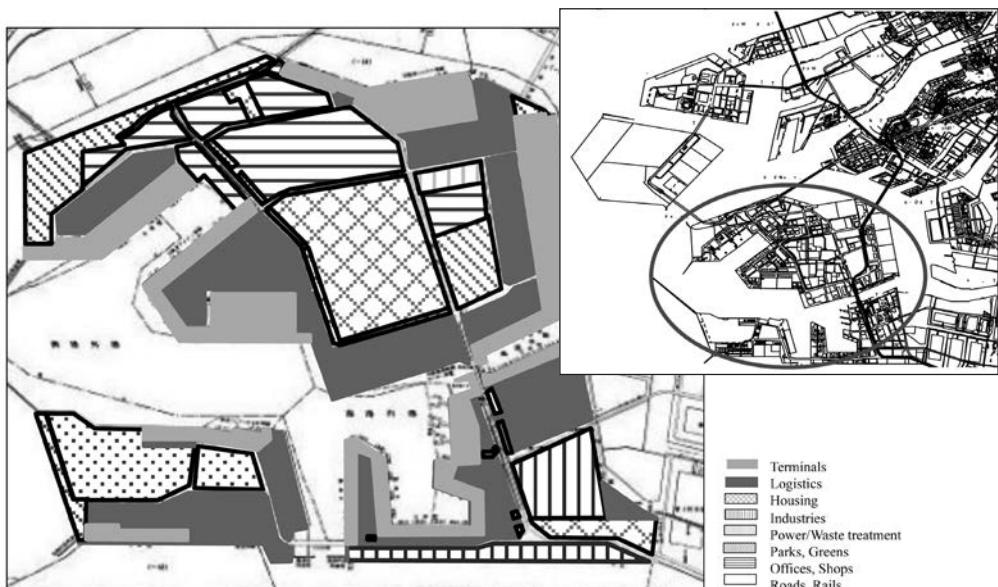
Due to intensive demands for lands as already discussed, ports of Japan have carried out extensive reclamation works across the country. Since 1945, a total of 72,000 ha land has been reclaimed from the sea within the port areas. Especially during the period of Japan's rapid economic growth in 1960s up to mid-1970s, land reclamation exceeded 2,000 ha every year, while it went down to a level of 100-200 ha/year for the recent decade. As shown in Figure-1, these reclaimed lands have been used for a wide range of uses, from marine terminals to waterfront industries, housing and offices.

Over the last 50 years, main uses of port reclaimed lands have changed significantly. In 1960s, approximately 80% of them were used for industrial activities, primarily heavy, chemical and energy industries. In 1970s and 1980s, industrial use decreased but still remained nearly half of them, while port-related and city-related uses and transportation and exchange activities gradually increased. In 1990s and 2000s, industrial use further went down to about 30%, city-related use and transportation and exchange activities accounted for 20% respectively and port-related use around 25%.

## Case of Osaka Port

As shown in Figure 2, Port of Osaka, located in Osaka Bay as a leading port in the western Japan, presents a typical case of port area development for multiple uses. The Sakishima Area of the port is developed entirely on a reclaimed island of 1,050 ha. This island is a complex of marine terminals for international container and domestic ferry services, while it is a newly developed town of 26,000 residents and an urban center of business offices and shopping malls.

**Figure 2 : Port of Osaka: Land Use of Sakishima Island**



Source : Port Authority of Osaka

Marine terminals occupy 196 ha (18.8%) of the Sakishima Island, including 6 container berths and 15 ferry berths both for domestic and international services. Logistics zone of 401 ha (38.3%) is developed just behind the marine terminals. It is used for warehousing, distribution centers and value-added logistics services. Unban activities zone is 130 ha (12.4%) for offices, shopping and exchange facilities such as Asia Trade Center, exhibition hall complex, hotels, and shopping malls. A residential area is 90 ha (8.6%) with 4 primary schools, 2 secondary schools and 1 high school. Also green area of 83 ha (8.0%) is developed for various types of parks for citizens. Artificial beach is also developed in a seaside park.

## Port redevelopments

In the early 1980s, ports of Japan recognized a need to revitalize their inner port areas, which were rapidly deteriorated due mainly to insufficient water

depth. In 1985, MOT launched a new port policy for redevelopment, called Port Renaissance. In fact, Port of Nagoya started a redevelopment project even earlier to create "Garden Pier" (Figure 3). This project covers a port area of 15 ha that used to have three finger-type piers. The water between two piers was filled to develop a large seaside park and a cruise terminal. Having an aquarium and a maritime museum with a 63 m-high observatory tower, Garden Pier attracts 7 million people every year.

**Figure 3 : Garden Pier, Port of Nagoya**



Source : Port Authority of Nagoya

Port of Yokohama provides a case of large-scale redevelopment, "Minato Mirai 21" (Figure 4). A former shipyard of some 120 ha was redeveloped together with newly reclaimed land of 80 ha to create a new waterfront urban center. Besides a large shoreline park, major landmarks include Japan's largest sailing ship, a national convention center, an exhibition center, hotels and shopping malls. Every year, 48 million people visit this area of the port.

**Figure 4** : Minato Mirai 21, Port of Yokohama

Source : [www.ebre-xgate.jp](http://www.ebre-xgate.jp)

These are just a few examples of inner port redevelopments in Japan. All cases were carried out by PMB in close collaboration with other organizations concerned. Through these projects, ports of Japan have paved a way to revive their close and amicable relations with port cities as discussed in the introduction. Port should carefully restructure itself to create a new urban waterfront the citizens can feel proud of and connected to the port. Port management system therefore needs to be flexible to allow for such evolution of a port and also coexistence with the city. This is particularly the case with Japan.

### Spatial dimension of port management system

Thus it is important to look into the spatial dimension of port authority. It can be discussed from two perspectives; (1) type of land use permitted in port area, and (2) ownership of land within the jurisdiction of port authority. In Europe, most of major ports are landlord type with their land area developed for marine terminals, logistics activities and waterfront industries. When port area is not required for such purposes, it is to be returned to the city for urban development such as housing and offices. In terms of land ownership, port land areas are owned by or trusted to port authority, thus generally no private land exists in the port.

In the United States, port authority also control its owned or trusted lands, but its lands are often limited to marine terminals alone and to less extent, some logistics

activities. For instance, any private land along the same shoreline even next to the port land cannot be regulated by the port authority. In Japan, however, port land area is legally defined as a port district in a city's entire zoning system. PMB is empowered to regulate all land uses in the port district, regardless the ownership of land.

## *Recent reform of container terminal management*

### **Reforms triggered by containerization**

When containerization started in Japan late 1960s, two fundamental issues arose. First, as the surge of demands was so rapid that the national and local governments could not afford to finance the construction of container terminals in a short period of time. Second, containerization forced the traditional common-user terminal system to change to a dedicated terminal system. In Japan, at that time, it was not allowed to lease any terminals publicly owned for exclusive use. Therefore some new scheme needed to be introduced.

In 1967, the International Terminal Corporation (ITC) was created with capitals provided by the national government and relevant PMBs, one each for Tokyo Bay and Osaka Bay. ITCs constructed container and liner terminals to lease for dedicated use with its own and lessees' loans as well as the governments' loans. This was a complete departure from the traditional terminal development and management in this country.

### **Creation of privatized bay-wise terminal companies**

In 1982, following a national policy of decentralization, ITCs were dissolved with all their assets as well as responsibilities transferred to local terminal corporations set up by the relevant PMBs of the two bay areas. In 2010, however, the Act was further revised to privatize these local terminal corporations and merge them to a bay-wise terminal company (BCTC), one each for Tokyo Bay and Osaka Bay with the respective PMBs as majority shareholders. At present, Ports of Tokyo, Kawasaki and Yokohama for Tokyo Bay and Ports of Osaka and Kobe for Osaka Bay are under way to create BCTCs.

Once established, while leasing terminal facilities from the national government and PMBs, BCTCs should be fully autonomous to manage all container terminals on a bay-wise basis. PMBs of the four major ports continue to carry out the management of port area, land and water, as well as port regulations such as safety and security. Under the revised Act, when preparing for a new port master plan, PMB must consider any proposal of terminal development submitted by BCTC. Thus it will result in a hybrid port management system for Tokyo and

Osaka Bays with PMB managing the respective port areas and port regulations while BCTCs managing container terminals of the bay areas.

### New challenges of the hybrid management system

Obviously, the creation of BCTCs is expected to prevent fierce competition for terminal tenants and shipping lines between the neighboring ports of the same bay. As such BCTC's united marketing will be more effective to global customers. Duplication of port investment is also possibly eliminated. However, success of this new system largely depends on how effectively BCTC and PMBs as main shareholder can work together for common goals. After all, each of PMBs pursues the realization of its own city's goals, sometimes trying to win over the neighboring cities. Thus, essential to the success is closer than ever collaboration among PMBs if it is to develop maritime hubs at Tokyo and Osaka Bays.

This reform only relates to management of container terminals of the bay area ports. But closer bay-wise collaboration is also required among PMBs with respect to the management of port area. As all the ports of Tokyo and Osaka Bays are literally next to each other, PMBs of the respective bays should work together to best utilize as well as conserve the bay area as a whole rather than individually planning and developing their own port areas. This will be another challenge for PMBs and in fact cities of the entire bay area.

## Conclusions

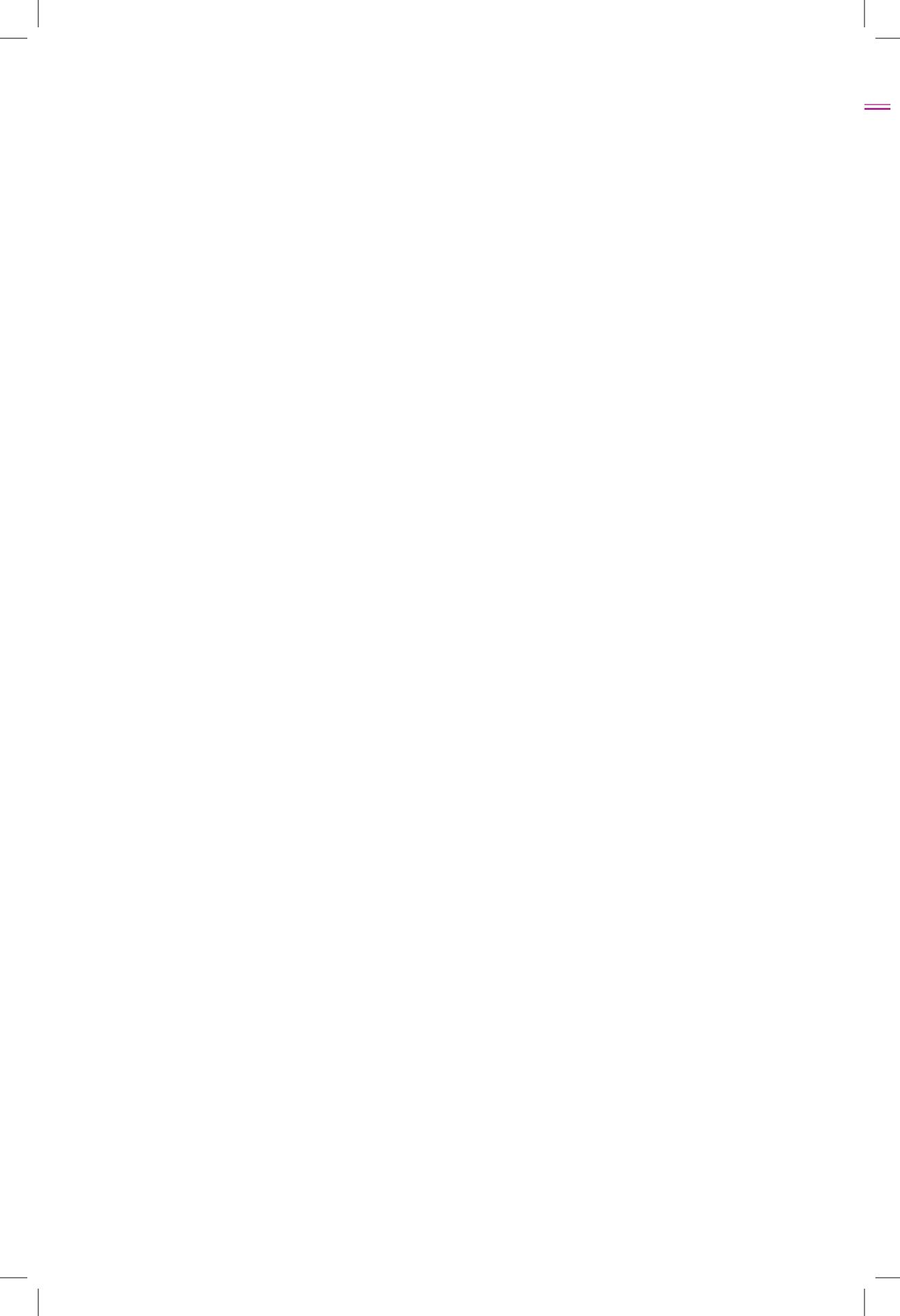
Japanese port management system is quite different from those in Europe and US. In Japan, as port areas often cover most, if not all, of the port city's coastal zone, a port management body is fully responsible for utilization and management of this valuable resource of the local community. Thus it is quite natural in Japan for a port to be managed as part of a city administration. To effectively analyze the port-city governance, the spatial dimension of a port authority deserves more attention.

In Japan, the creation of bay-wise container terminal companies now in progress will bring up new challenges of the port-city governance. While both ports and cities of the large bay areas are competing with each other, this bay-wise organization, though limited to container terminals, is expected to push forward the long-awaited bay-wise collaboration among them in a full scale.

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## **Capsule professionnelle 5**

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# **Réflexions sur le futur des relations ville-port en Afrique de l'Ouest et du Centre**

*Yann ALIX*

Délégué Général

Fondation Sefacil

Le Havre – France

*♂ Rigobert Ikambouayat Deka*

Directeur Général

Office des Ports et Rades du Gabon (OPRAG)

Libreville – République Gabonaise

## **Biographie**

**Rigobert Ikambouayat Deka** occupe depuis octobre 2009 la position de Directeur Général de l'Office des Rades et Ports du Gabon (OPRAG). Il est l'initiateur et l'organisateur de la conférence internationale des 40 ans de l'OPRAG qui s'est tenu à Libreville en avril 2014. Ministre délégué à la Communication, Postes & Telecom en 2007, Rigobert Ikambouayat Deka est un haut fonctionnaire de la République Gabonaise. Il a reçu plusieurs distinctions honorifiques parmi lesquelles l'ordre de Commandeur du mérite Gabonais, l'officier de l'Etoile Equatoriale et la médaille du Mérite Postal.

## Introduction

Les grandes villes portuaires de la rangée Dakar-Luanda présentent invariablement des caractéristiques identiques (Daudet, 2014). Issues d'une planification coloniale, la ville enchaîne les infrastructures portuaires dans une densité urbaine qui se nourrit des échanges, des transports, des stockages, des transformations et des distributions des produits internationaux importés. A l'exportation, le port et la ville demeurent des goulots d'étranglement de l'évacuation logistique des richesses naturelles extraites des sols et sous-sols africains. Bien souvent capitale économique et/ou politique, la ville portuaire subsaharienne condense les lieux de pouvoir et les centres de décision. Elle attire autant les élites nationales que des populations rurales en quête d'une vie plus prospère au contact des activités portuaires et péri-portuaires. Portes maritimes incontournables des économies enclavées, les villes portuaires constituent des « culs de sac » avec, entre autres, la problématique logistique du traitement des camions et de leur stationnement prolongé au cœur des systèmes circulatoires urbains. Embouteillage, accidentologie, pollution, occupation foncière illégale, corruption ; les maux de la mixité ville-port demeurent très nombreux et sans réponse face à des gouvernances généralement séparées (Alix & Ikambouyat Deka, 2014). Autorités de la ville et autorités du domaine régional portuaire cherchent plus à conserver leurs périmètres et prérequis qu'à structurer des gouvernances en phase avec les défis modernes d'une plus grande prospérité annoncée (Alix & Daudet, 2014).

Avec des taux de croissance économique supérieurs à 5%, une augmentation garantie de l'urbanisation et un probable doublement des manutentions portuaires dans les années à venir, les problèmes des villes et des ports vont invariablement se conjuguer si ce n'est se découpler sans une approche concerté et innovante (Alix, 2014). La présente capsule synthétise par l'exemple les problématiques actuellement rencontrées dans la plupart des villes portuaires de l'ouest et du centre de l'Afrique. Une deuxième partie débat de plusieurs idées novatrices en considérant les spécificités actuelles du développement portuaire et urbain subsaharien. Une dernière partie constitue une capsule dans la capsule puisque le cas du Port-Môle au cœur de Libreville en République Gabonaise est analysé en résonnance des éléments apportés dans les deux premières parties.

### *« Petits » ports et « grandes » villes : des réalités très éloignées des clichés*

Hormis le cas singulier de Lagos et dans une certaine mesure de Kinshasa qui n'est pas un port maritime, les agglomérations portuaires ouest et centre africaines ne sont pas frappées de ce syndrome macrocéphalique si doctement rappelé par les médias occidentaux.

Le tableau 1 apporte des informations essentielles pour comprendre la dynamique urbaine des grandes portes portuaires ouest et centre-africaines.

**Tableau 1 : Évolution de la population des principales villes portuaires ouest et centre-africaines - 1950-2010 en milliers d'habitants**

villes portuaires et pays	Population en 1950	Population en 2010	Population nationale en 2010	En % du total
Dakar (Sénégal)	253	2,747	12,134	22,7
Conakry (Guinée)	38	1,575	8,967	17,6
Abidjan (Côte d'Ivoire)	89	4,113	21,116	14,5
Accra (Ghana)	162	3,452	22,624	15,3
Lomé (Togo)	39	1,407	5,893	23,8
Cotonou (Bénin)	21	1,259	8,873	14,2
Lagos (Nigéria)	291	10,001	158,313	6,8
Douala (Cameroun)	95	1,906	20,620	9,8
Libreville (République Gabonaise)	10	600	1,480	40,5
Pointe-Noire (Congo)	21	800	3,978	20,1
Luanda (Angola)	141	5,200	19,980	26,0

Source : compilation des auteurs à partir de données d'Africapolis 2008, E-Geopolis 2010, Banque Mondiale (plusieurs années).

De simples comptoirs commerciaux guère plus gros que des villes moyennes (Lomé, Cotonou, Libreville ou encore Pointe-Noire) sous la domination coloniale, toutes les villes portuaires sont devenues des capitales économiques et des centres qui pèsent sensiblement dans l'urbanisation des populations nationales (jusqu'à 40% pour Libreville et près d'un quart de la population pour Lomé et Luanda). Toutes ces villes-capitales (économique et /ou politique) continuent de croître avec un étalement spatial et une densité démographique qui contraint toujours plus la cohabitation avec des services portuaires et logistiques eux-mêmes en expansion. L'Afrique reste le continent le moins urbanisé avec 35% des habitants qui vivent en ville contre 80% d'urbains latino-américains ou 75% d'eurocéens (*Questions Internationales*, 2013). En conséquence, la métropolisation et l'urbanisation constituent des faits avérés qui vont continuer de progresser dans un contexte de rattrapage par rapport au reste du monde (Denis & Moriconi-Ebrard, 2009). Déjà, dilution spatiale, complexification fonctionnelle, diffusion sans limite et territoires métropolitains sans réelles frontières caractérisent des villes portuaires subsahariennes qui ne diffèrent guère des dynamiques constatées partout ailleurs dans le monde (Grumbach & alli, 2013). Le phénomène d'un étalement horizontal et non vertical se manifeste dans la faible concentration de tours d'habitation et la prolifération de bidonvilles précaires à l'instar du Nigéria où 62% de la population dite urbaine se loge dans des bidonvilles (*Questions internationales*, 2013).

Côté portuaire, le tableau 2 met en avant des tonnages plutôt modestes hormis la zone Lagos-Apapa-Tin Can qui constitue l'une des zones industrialo-portuaires les plus dimensionnées du continent. Abidjan et Pointe-Noire s'imposent comme deux têtes de pont conteneurisées alors que Luanda continue de tirer profit de la croissance économique angolaise. Ensuite, les grands ports commerciaux de la rangée ouest et centre-africaine oscillent peu ou prou autour d'une dizaine de millions de tonnes métriques avec globalement des profils en croissance régulière ; reflet fidèle de la dynamique économique positive du sous-continent depuis le milieu des années 2000.

**Tableau 2 : Trafics total et conteneurisé des principaux ports ouest et centre-africains -2011**

ville portuaire et pays	Trafic total (en millions de tonnes métriques)	Trafic conteneur (en EVP)
Dakar (Sénégal)	11,4	415,000
Conakry (Guinée)	10,1	135,000
Abidjan (Côte d'Ivoire)	16,6	550,000
Accra - Tema (Ghana)	10,8	750,000
Lomé (Togo)	8,2	350,000
Cotonou (Bénin)	6,8	340,000
Lagos - Tin Can - Apapa (Nigéria)	79	1,350,000
Douala (Cameroun)	7,9	340,000
Libreville (République Gabonaise)	6,3	110,000
Pointe-Noire (incluant Djéno)	21,9	440,000
Luanda (Angola)	9,6	630,000

Source : compilation des auteurs à partir des données Fondation Sefacil, sites internet des autorités portuaires.

Dans l'ensemble, tous les ports retenus présentent des profils de trafics très diversifiés, ce qui signifie que les pré et post acheminements impactent différemment la communauté urbaine adjacente. Une tonne de minerai sur un convoyeur ou de pétrole dans un pipeline n'a pas le même impact sonore, visuel ou logistique qu'une tonne de conteneur, une tonne de roulier ou une tonne de marchandise générale diverse non-conteneurisée. Il en ressort donc que les nuisances et externalités liées aux activités portuaires se déclinent selon des scénarios particuliers, tenant compte aussi de l'agencement spatial des terminaux par rapport à la ville. Pointe-Noire, ville à peine millionnaire, subit de plein fouet le boom conteneurisé suite à l'extension du terminal dédié. La structuration et l'organisation des circulations à Pointe-Noire n'ont pas été planifiées pour absorber de tels acheminements conteneurisés. Une voie de délestage au cœur du domaine portuaire, une zone tampon dédiée aux conteneurs (toujours au sein du territoire du PAPN) et une étude sur les modalités de gestion des flottes de camions constituent les parades pour éviter une congestion endémique et chronique jusque dans le cœur de la ville de Pointe-Noire.

A Abidjan, les élus et habitants du quartier de Vridi se plaignent de la présence dans des conditions sanitaires exécrables des chauffeurs routiers en provenance des pays enclavés. Des tensions ethniques ont même été constatées alors que les chauffeurs des pays enclavés dorment sous leur camion pendant parfois des semaines.

Dans l'immensité de la conurbation de Lagos, ce sont les ponctions illégales des trafiquants sur les pipelines qui génèrent des pollutions cauchemardesques sur le domaine portuaire.

Insécurité, insalubrité mais aussi dérives raciales peuvent se constater régulièrement sur ces territoires tampons entre la ville et le port où aucune forme affirmée de coopération entre l'autorité portuaire et l'autorité de la ville ne se constate.

Aujourd'hui, force est de constater que les organes de gouvernance des villes portuaires subsahariennes n'intègrent que très rarement les plus hauts représentants des autorités portuaires. A l'inverse, il est parfois constaté la présence de représentants des villes au sein des conseils d'administration ou de surveillance des autorités portuaires. Avec un doublement annoncé des trafics portuaires dans la prochaine décennie et une inaltérable urbanisation de populations encore majoritairement rurales, il est plus que temps d'innover pour engager des gouvernances concertées de la ville et du port.

## *Communautés portuaires et urbaines : repenser les gouvernances dans un contexte de croissance*

Face aux maux liés au confinement spatial, à la congestion chronique ou encore à la concurrence foncière, la plupart des autorités publiques déploie plusieurs stratégies qui souvent se combinent :

- Le déploiement de nouvelles installations portuaires en dehors des sites historiques saturés. Lekki au Nigéria (60 kilomètres de Lagos), Kribi au Cameroun (sud du pays) mais aussi le déploiement de TC2 à Abidjan constituent trois exemples tangibles.
- La gestion logistique de ports secs, plates-formes logistiques avancées et autres aires de valorisation situées en dehors des agglomérations. A peu près toutes les autorités portuaires visent, entre autres, à réguler les transits internationaux routiers depuis ces zones éloignées du centre-ville.
- Le déplacement (et parfois la relocalisation planifiée) des activités commerciales informelles des populations urbaines occupant le domaine portuaire (exemple des marchés et de la restauration rapide au niveau des territoires portuaires de Douala ou d'Abidjan).

Aujourd'hui en Afrique de l'Ouest et du Centre, seules des collaborations et échanges ponctuels entre la ville et le port animent la relation ville-port. A Abidjan,

des comités réunissent le district de la ville d'Abidjan et le Port Autonome d'Abidjan qui déploie ses activités sur quatre communes de l'agglomération (*Plateau, Treichville, Port Bouet et Yopougon*). La concertation a permis de déployer des schémas d'aménagement et des plans stratégiques qui reprennent autant les arguments du développement portuaire que les revendications de la Mairie d'Abidjan. Parce que le PAA occupe une grande partie des territoires bordant la lagune Ebrie, des innovations logistiques comme des services de barges conteneurisées sont à l'étude afin d'éviter l'engorgement des axes routiers et tous les désagréments liés aux brouettings entre terminaux.

A Douala, des représentants de la ville participent aux organes de gestion de l'Autorité portuaire du Douala (PAD) et cherchent à trouver des conciliations au sein de comités de pilotage sur les impacts négatifs de l'activité portuaire sur la ville. La décentralisation voulue par le pouvoir central de Yaoundé a poussé à l'investissement direct des acteurs locaux pour une meilleure concertation croisée entre la ville et le PAD.

A Lomé, l'autorité portuaire a ouvert ses portes de manière exceptionnelle aux vendeurs de souvenirs du centre-ville au moment de la venue d'un navire de croisière (voir photo). Le Port Autonome de Lomé (PAL) revendique un engagement à l'égard de sa communauté urbaine adjacente par l'entremise de soutien aux associations, le financement d'un centre médical et d'une école maternelle ou encore la mise à disposition des services de pompiers du PAL en centre-ville.

A Téma, port de la capitale Accra au Ghana, ce sont les complications écologiques et environnementales qui ont encouragé le dialogue et la concertation entre les autorités de la ville et celle du port. En particulier, aux effets néfastes des écoulements des huiles et des eaux usées en provenance du port répondaient les décharges à ciel ouvert et les rejets domestiques des habitants sur les terre-pleins du domaine portuaire. Des commissions, un programme de sensibilisation, des formations et finalement un plan de contingence environnemental ont été conjointement déployés par les autorités publiques locales.

**Figure 1 : escale d'un navire de croisière et vente sur le terminal à conteneurs de souvenirs artisanaux Togolais**



Source : Port Autonome de Lomé

Aux réponses ponctuelles sur des dossiers précis, ville et port collaborent *de facto* si les intérêts des deux parties prenantes se télescopent. En conclusion, force est de constater que ce sont les forces du marché et la concurrence exacerbée entre les ports (et demain sûrement entre les villes) qui devraient être les moteurs de l'innovation et de l'audace pour penser les choses autrement. Il en va de l'attractivité économique et commerciale de la ville portuaire. A la fluidité logistique dans la gestion du passage des marchandises répond la qualité de vie des habitants. Aux affres de potentielles dérives environnementales répond la salubrité de territoires très densément peuplés. Au potentiel touristique résonne les opportunités à venir de la croisière et de la plaisance. Le cas du projet du champ triomphal sur la zone du port môle de Libreville en République Gabonaise sert d'illustration pour proposer quelques pistes de réflexion.

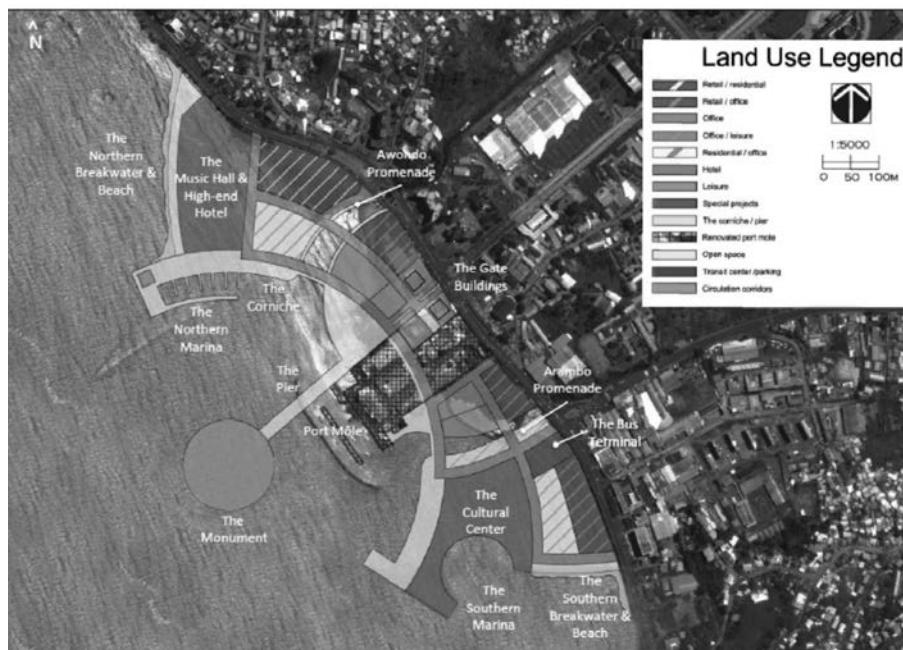
## *De Libreville à Owendo en passant par le Champ Triomphal et le Port-Môle : histoires de gouvernance ville-port à la mode Gabonaise*

De manière presque paradoxale, le cas de Libreville-Owendo constitue l'ensemble portuaire le plus petit en matière de peuplement urbain mais il concentre près de 40% des populations urbaines Gabonaises (Gazel, Harre & Moriconi-Ebrard, 2010). Si l'on ajoutait la bande littorale de Port-Gentil, ce sont plus des deux-tiers des habitants de la République Gabonaise qui se concentrent dans les deux principaux ports maritimes du pays.

A Libreville-Owendo, les dilutions urbaines se concentrent le long d'un axe routier principal qui relie l'aéroport international, le centre-ville de la capitale et les terminaux du site portuaire d'Owendo. Sur le seul plan logistique, il en résulte une congestion qui engendre mécaniquement une augmentation considérable des coûts de pré et post-acheminements routiers. Des tarifs supérieurs à 500 euros le conteneur de 20 pieds ont été dénoncés lors de la conférence internationale célébrant les 40 ans de l'OPRAG (Ikambouyat Deka, 2014). Malgré la réfection en 2014 de la route principale entre le centre-ville et les terminaux portuaires (secteur de Lalala en particulier), les problématiques de gestion de cette interface s'avèrent un peu particulière puisqu'en localisant les activités portuaires à Owendo et non au cœur de la cité de Libreville, l'interface immédiate est épargnée d'une congestion endémique pour se reporter le long du seul corridor routier.

Autre problématique ville-port particulièrement sensible, c'est la modernisation de l'interface entre le cœur du centre de la ville de Libreville et les anciens terminaux maritimes de l'OPRAG situés au cœur de cette même zone d'hyper fréquentation urbaine. Tel que renseignée par l'illustration satellitaire ci-après, le Port-Môle se situe sur le bord de mer de Libreville, en face de la pointe de Pongara, à proximité immédiate du Palais de la Présidence.

**Figure 2 : Détail du projet d'aménagement du Port-Môle au cœur de la capitale Libreville – République Gabonaise**



Source : Royal Haskoning DHV, Rapport 1 – 14 Juin 2013

C'est un point névralgique de la circulation intra-urbaine de Libreville et un passage quasi obligé dans les circulations de transit. Le rond-point du Champ Triomphal constitue un point de convergence de plusieurs routes essentielles à la mobilité des populations. La circulation piétonne constitue aussi un enjeu puisque cette partie du front de mer est investie par la population pour se promener ou faire du jogging. Ce lieu de vie essentiel fait l'objet d'une totale reconfiguration avec une modification radicale du profil de l'interface entre le bord de mer et la façade urbaine. Le Port-Môle redistribue aussi les fonctions de cet espace par une somme de projets infrastructurels qui implique 5 phases de remblais pour gagner de nouvelles terres. Au total, plus de 30 hectares supplémentaires viendront soutenir l'extension physique sur la mer.

Dans le cadre du programme « Gabon émergent » dévoilé par son Excellence le Président de la République Gabonaise, le Port-Môle a pour ambition :

- d'améliorer la qualité de vie à Libreville ;
- d'inclure des infrastructures de transport public ;
- de construire des logements ; et,
- de déployer des installations de détente de qualité supérieure.

Or, le site historique du Port Môle est dédié aux activités des lignes régulières de ferry qui relie le cœur de la cité Gabonaise aux ports de Libreville et de Sao

Tomé et Principe. Les infrastructures sous la juridiction de l'OPRAG accueillent en outre des bateaux de plaisance dans une zone de mouillage dédiée à cet effet ainsi que des installations nautiques et terrestres pour les pêcheurs gabonais et internationaux.

Tel qu'énoncé dans le projet du Port Môle, cet aménagement de très grande envergure vise, entre autres :

- à stimuler le développement économique général de la région ;
- à créer des opportunités d'emplois pour la population locale ;
- à positionner Libreville comme pôle d'attractivité internationale majeure par l'entremise :
  - de deux marinas permettant l'accueil de grandes unités de plaisance de luxe ;
  - des installations de loisir ;
  - d'un centre des congrès ;
  - d'un centre culturel.

Nous ne sommes pas dans des processus classiques de réhabilitations de friches industrielo-portuaires de centre-ville à l'instar de ce que l'on a pu déployer dans les villes portuaires nord-américaines et nord-européennes. Le Port Môle projette Libreville dans une autre forme de modernité émergente à la mode africaine ; à l'instar des projets sur le front de mer de Luanda. La mixité des usages (récréatives, culturels, sportives, événementiels, etc.) tend à évacuer les fonctions portuaires historiques (figure 3).

**Figure 3 : Vue d'artiste des installations finales de Port Môle au sein du cœur de centre-ville de la capitale politique et économique de Libreville – République Gabonaise**



Source : Royal Haskoning DHV, Rapport 1 – 14 Juin 2013

Un changement d'usage, de fonctions et finalement de responsabilité s'opère puisque l'emprise foncière du Port Môle s'étend sur la baie afin de permettre le

développement d'espaces dévolus aux activités récréatives et de détente de la population de Libreville mais aussi des touristes espérés avec la modernisation de ce nouvel interface ville-port. Il convient de reconnaître que les empreintes fonctionnelles et infrastructurelles de l'OPRAG sur les territoires du Port Môle demeurent faibles avec notamment l'aménagement récent par l'OPRAG d'infrastructures légères pour l'usage des pêcheurs locaux.

L'envergure du projet Port Môle porté directement par la Présidence de la République met en évidence différents niveaux de gouvernance :

- celle relevant de la ville de Libreville avec ses élus;
- celle relevant de l'OPRAG avec son directeur général et ses équipes; et,
- celle relevant directement de la Présidence dans le cadre du programme Gabon émergent.

Dans cet environnement institutionnel et politique, il convient de rappeler que dans le contexte du Gabon émergent, une Agence Nationale des Grands Travaux (ANGT) a été créée par l'Ordonnance 004/PR/2010 du 15 février 2010. Son rôle officiel est de programmer et d'assurer la maîtrise d'ouvrage des grands projets et travaux publics jugés prioritaires par le Chef de l'État. En clair, l'ANGT est en charge de la gestion complète du Projet d'Aménagement du front de mer du Port Môle (PAPM) pour le compte du **Ministère de la Promotion des investissements**, le Ministère des Travaux publics, le Ministère des Transports, le Ministère de l'Habitat et le Ministère du Tourisme.

La création de l'ANGT constitue en quelque sorte une première avancée en matière de gouvernance avec un chapeau interministériel essentiel dans la conduite du chantier du Port-Môle. La problématique de la gouvernance d'ensemble du Port Môle devient essentielle quand sera venu le temps de la gestion technique, économique, logistique et financière des activités de plaisance et de croisière par exemple. Quelle structure sera en charge d'orchestrer la gestion des interfaces entre les installations bord-à-quai, la mobilité des touristes ou encore le flot de plaisanciers ? Quel rôle l'OPRAG et ses services face aux édiles et responsables du développement économique une fois les infrastructures lourdes complétées ? Alors que le renforcement de la légitimité régaliennes de l'OPRAG est clairement rédigé dans les recommandations ministérielles suite au 40ème anniversaire de l'OPRAG, force est de constater que beaucoup reste à faire pour constituer une gouvernance unanime pour opérer de telles transformations stratégiques.

Il va sans dire qu'au regard des priorités politiques édictées par le plus haut sommet de l'Etat, les prérogatives régaliennes sur le territoire foncier de l'OPRAG sont relativisées. De même que la partie des revenus collectés par l'OPRAG sur ces territoires fonciers n'est pas comptabilisé dans la grande équation économique d'une telle opération immobilière. Les amodiatisons et leurs compensations ou encore les revenus à venir issus directement de la compétence de gestion du plan d'eau sous-tendent de clarifier le rôle et le périmètre de responsabilité de chacune des parties prenantes.

Ensuite, une gouvernance moderne dans une Afrique émergente exige de dépasser les simples critères économiques et financiers d'un tel projet jugé prioritaire et stratégique par la Présidence. Les études sociales et environnementales menées notamment par Royal Haskoning DHV et Géo-Guide (Géo Guide & Royal Haskoning DHV, 2013) attestent de l'ambition d'inclure des facteurs sociaux, sociétaux et environnementaux. Emplois directs et indirects, impacts positifs sur l'espace urbain de Libreville, prise en compte des enjeux environnementaux, bien-être local des riverains constituent des facteurs-clés analysés en détail dans les expertises.

L'exemple actuellement vécu à Libreville sera suivi à coup sûr de nombreux autres puisque la quasi-totalité des villes portuaires de la rangée Dakar-Walvis-Bay aspire à une modernisation de l'interface entre la ville et le port. Cela s'avère d'autant plus vrai que les opportunités de la plaisance, de la croisière et du tourisme se démontrent tous les ans un peu plus (De Carvalho, 2011 ; Alix, 2013). La transformation de la métropole portuaire subsaharienne fait l'objet de nombreuses attentions urbanistiques (Alix & Daudet, 2014). Les croissances sont aussi irréversibles qu'historiques avec des taux d'urbanisation et de métropolisation qui ne vont cesser de croître dans les prochaines décennies (Africapolis, 2008). D'ici 2050, ce sont 1,2 milliards de population urbaine qui peuplera les villes africaines contre environ 400 millions en 2013 (Védrine & alli, 2013).

Même tendance finalement pour des ports qui finissent par s'étendre et se moderniser afin de servir la croissance économique et les internationaux. Les tensions pour la revendication des usages fonciers et la conciliation des priorités stratégiques constituent les principaux enjeux d'une « *Smart Governance* » qui marie gouvernance métropolitaine, gouvernance portuaire et finalement gouvernance stratégique étatique, pour ne pas dire présidentielle selon les cas. Dans le cas Gabonais, l'ampleur de la transformation de l'espace foncier de l'OPRAG constitue une forme de transfert *de facto* vers la ville de réserves stratégiques de terrains situés en bord de mer.

Une *Smart Gouvernance* pour une *Smart cité portuaire africaine* exige des innovations managériales qui cassent les schémas actuels de contrôle et de décision. Une première innovation mondiale serait de penser les contours d'une gouvernance considérant en son sein l'expression des investisseurs privés nationaux et internationaux. Dans une logique où les partenariats public-privé sont dorénavant les véhicules incontournables pour accompagner la croissance métropolitaine et portuaire africaine, il devient urgent de construire des organes de gouvernance représentatifs et légitimes de cet état de fait. Dans un environnement d'affaires souvent dénoncé pour son opacité, un organe de gouvernance innovant permettrait de déployer une vision intégrée des décisions d'investissements, des modèles financiers ou encore des effets induits sur le long terme des synergies métropolito-portuaires.

Relevant directement du Chef de l'Etat, une telle structure de gouvernance serait garante d'une vision commune et concertée des problématiques et des opportunités que créent les actuels développements portuaires et les développements urbains. Caractériser, quantifier et hiérarchiser la somme des contraintes liées à la gestion des interfaces ville-port mais aussi prioriser, qualifier et partager la somme des grands projets urbains et portuaires dans une approche holistique. La légitimité de cet organe présidentiel passerait par la composition de ses membres. Des hauts fonctionnaires de l'Etat, spécialistes des questions métropolitaines et portuaires seraient accompagnés des plus hautes instances de décision « locales » (maire de la ville et directeur général du port). Côté privé, des observateurs privés extérieurs devraient briguer des mandats pour exprimer la voix des investisseurs, des bâtisseurs et des opérateurs. Le positionnement des représentants privés ne serait validé que par une décision concertée entre les tous les acteurs publics présents, Président inclus.

L'Agence Nationale des Grands Travaux, dans son intitulé même, n'a pas vocation à couvrir ces fonctions essentielles de la gouvernance de l'ensemble du Port-Môle.

## En guise de conclusion

L'organisation des gouvernances urbaines et portuaires actuelles ne peuvent embrasser les croissances métropolitaines et portuaires annoncées pour les prochaines années au sud du Sahara. Cela constitue une formidable opportunité d'innovation. Cela peut incarner une preuve de la maturité démocratique face aux ambitieux développements métropolito-portuaires. Inclure la société civile dans les débats. Inclure les acteurs privés dans les discussions stratégiques sur les contours de la future métropole portuaire subsaharienne. Intégrer une vision planificatrice à long terme des co-usages, des co-responsabilités et des co-rentabilités représente les fondements d'une gouvernance totalement revisitée.

Repenser les adjudications régaliennes des territoires fonciers portuaires et métropolitains. Décloisonner les responsabilités. Reconfigurer les délimitations fonctionnelles. Englober les dimensions stratégiques de développements dessinés dans le long terme. Et finalement, engager des réformes institutionnelles pour créer les futurs cadres réglementaires qui réguleront une planification concertée.

Tout cela est prétexte à repenser les contours d'une gouvernance en phase directe avec la mixité d'usages et des pratiques sur ces futurs territoires métropolito-portuaires mosaïques. L'enjeu est essentiel car les croissances conjuguées des espaces métropolitains et portuaires sont amenées à se concurrencer dans

le temps et dans l'espace. Ces croissances pourraient même s'annihiler sans un minimum de concertation et de conciliation. Il pourrait en résulter une perte de compétitivité et d'attractivité tout en générant des externalités négatives qui viendraient amputer la compétitivité de l'ensemble.

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## **Capsule professionnelle 6**

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# **Challenges for the cruise industry and port-city governance: The case of the Caribbean**

*Ibrahim Ajagunna*

*Director of Academic Studies*

Caribbean Maritime Institute

Kingston – Jamaica

*e³ Fritz Pinnock*

*Executive Director*

Caribbean Maritime Institute

Kingston – Jamaica

## **Biographies**

**Ibrahim Ajagunna** has his early education and training in Nigeria. Ibrahim holds a Higher National Diploma in Hospitality Management from the Federal Polytechnic Idah, Nigeria, A Master of Science degree from Sheffield Hallam University, UK, a Post Graduate Diploma in Education from the University of Technology and a Doctor of Philosophy in Sustainable Development from the University of the West Indies, Jamaica. Ibrahim is currently completing a Doctoral degree in Education Leadership with Global University For Life Long learning (GULL). Ibrahim is well versed in curriculum development and course delivery. Ibrahim has participated and presented papers at various conferences and seminars and has also published materials in reputable international journals and has written book chapters in the areas of tourism management. His most recent book looks at planning process for sustainable tourism development using the South Coast of Jamaica as case example.

*Ibrahim is a co-author of the book From Piracy to Transhipment, Jamaica's Journey to becoming a global logistics Hub. Ibrahim has experiences locally and internationally in management positions both in the Tourism and Hospitality industry and at Educational Institutions. Ibrahim is the president of Caribbean Tourism Educator Alliance Jamaica. He is a member of the Board of Studies for Tourism and Hospitality, University Council of Jamaica. Ibrahim is the vice Chair of the sub committee on education and training of the National steering committee on Jamaica logistics hub task force.*

**Fritz Pinnock** is the Executive Director at The Caribbean Maritime Institute. His experience in the shipping and transportation industry spans over two decades. Fritz holds a Doctor of Philosophy in sustainable development from the University of the West Indies. He also holds a Master of Science Degree from University of Plymouth, UK. Fritz is currently completing a Doctoral Programme in Education Leadership with Global University for Life Long learning (GULL).

*His consultancy services in strategic management have been extended to many Caribbean Islands including Jamaica, Barbados, Antigua and Guyana. Fritz has written and presented papers at various conferences both within the shipping and transportation industry and educational institutions. His most recent book looks at power relations in cruise industry with a focus on cruise tourism in the Caribbean.*

*Fritz is a co-author of the book From Piracy to Transhipment, Jamaica's Journey to becoming a global logistics Hub. Fritz is an expert in developing and integrating operational and strategic plans; reengineering, cost cutting control, and managerial systems development. Fritz is the Chair of the sub committee on education and training of the National steering committee on Jamaica logistics hub task force.*

## *A global outlook*

Passenger travel via ship existed for centuries before formalization into the ocean liner trade, with the sailing of the Cunard Steamships Limited's first steamship "Britannia", from Liverpool to Boston via Halifax with 63 passengers in 1840, marking the beginning of the first regularly scheduled transatlantic passenger and cargo service. Initially, there were few amenities on board or dockside, as passenger comfort was not a priority, and cruising was a subsidiary business to mail and cargo transport. The transatlantic ocean liner trade continued to develop despite periodic challenges, with more emphasis on passenger comfort, until the introduction of jet travel towards the end of the 1950s which substantially reduced Atlantic crossing time and, according to Pinnock and Ajagunna (2010), reduced the transatlantic liner passenger trade between North America and Europe from 64% of the total traffic in 1953 to 5% in 1969.

The continued dominance of air travel in the 1960s, with its charter tourism facilitated by large passenger aircraft and the establishment of a regulated global transportation network of airports, provided severe competition which, together with the increased fuel prices associated with the international oil crisis in the 1970s, resulted in the decline of transatlantic shipping as a principal mode of passenger transport, and the conversion of ocean liners to dedicated cruise service. The decline of transatlantic shipping was accompanied by the gradual establishment of the cruise concept in the North American Market and, as the cruise companies which were originally family-owned became increasingly profitable, ships usually accommodating between 700 and 1,000 passengers, were designed and built specifically for warm weather cruising to nearby Caribbean destinations (Mathisen, 2007).

In 1972 Carnival Cruise Lines introduced the concept of the "Fun ship" involving the promotion of cruises as mass tourism (Dickinson and Vladimir, 2007), and advertised their ships as holiday destinations rather than the ports of call, while in 1974, the concept of "one class" cruising was introduced by Cunard Line Limited. Thus, the creation of a casual environment, featuring extensive on board entertainment, attracted persons not privileged to have traveled on the grand ocean liners of the 1930s and 1940s, while the ability of passengers to enjoy equal amenities despite type of accommodation booked, encouraged the general public to take cruises as short vacations, rather than solely as a means of transportation. This new cruise line image, which placed increased emphasis on the experience of the voyage resulted in the continued growth of the cruise industry in the 1970s and 1980s.

In the 1980s, the cruise industry introduced to its fleet, giant passenger liners capable of carrying in excess of 2,000 passengers. The design of these mega vessels, with all the amenities of magnificent, all-inclusive, floating hotels, fully

established the marketing of the shipboard experience as the main selling point for travelers, rather than the attraction of the ports of call. During the 1990s consolidation, demonstrated by many mergers and acquisitions, was a major trend within the industry. The introduction of the Carnival Destiny in 1996 saw the transition from the transportation era to cruise ships now becoming floating resorts. This became the first post Panamax (first cruise ship too large to transit the Panama Canal). This then shifted the focus from the Caribbean as the focal point of entertainment to the ships, while the Caribbean emerge as backdrop for the mega cruise liners. Wild (1998) observes that during 1997 there was considerable change in the structure of the cruise industry, with middle ranking companies being increasingly absorbed by the larger groups, while Pinnock and Ajagunna (2010) note that relentless consolidation resulted in cruise tourism being almost completely controlled by trans-national corporations, with the top three cruise companies controlling about 80% of the cruise market worldwide, which is an exceptionally high level of industry oligopoly, even by global standards.

Mathisen (2007) notes concentration of ownership by three publicly-held companies which control in excess of 80% of the cruise market in North America and worldwide as follows.

- Carnival Corporation, consisting of ten different brands worldwide (Carnival Cruise Lines, Holland America Line, Princess Cruises, Seabourn, AIDA Cruises, Costa Cruise, Cunard, Ibero Cruises, P&O Cruises (Australia), P&O Cruise (UK), dominates the markets in North America, the Caribbean, Europe, South America and Australia, and is the largest.
- Royal Caribbean, the second largest, consists of six brands (Royal Caribbean International, Celebrity Cruises, Pullmantur, Azamara Club Cruises, Tui Cruises and CDF Croisiere de France) and the largest cruise vessels in the world.
- Star Group, predominantly consisting of Norwegian Cruise Line, completes the top three largest cruise companies worldwide.

**Table 1:** World's Three Largest Cruise Ship Companies

	<b>Ships</b>	<b>Berths</b>	<b>Capacity</b>	<b>Market Share %</b>
Carnival Corporation				
Total	83	155,710	7,204,282	46.7
Royal Caribbean Cruises				
Total	34	69,416	3,509,170	22.8
Star Group				
Total	17	32,096	1,653,400	10.7
<b>Total - Three Companies</b>	<b>134</b>	<b>257,222</b>	<b>12,366,852</b>	<b>80.2</b>

Source: *Cruise Industry News Annual 2007*

This high concentration of ownership and dominance of the global cruise market was also illustrated in the Caribbean, when in 2006 the market was controlled by Carnival Corporation with 47%, Royal Caribbean Cruise Line with 22%, and Star Cruises with 11%, collectively accounting for 80% of the total market share.

Anticipated growth in the industry resulted in demand for mega size cruise ships in the range of 2,000 to 3,100 passengers for 1999-2004 (Cruise Industry News Quarterly: Shipbuilding and Repair, 1999), and according to Wild (1998) created considerable demand for the development of cruise facilities, ranging from relatively modest projects for upgrading, to mega projects involving the creation of vast new tourist facilities. This increase in new buildings and berth availability, though highly capital extensive, exemplified the confidence in the continued growth of demand, and the industry belief that demand is primarily capacity led. Thus it is suggested that the modern cruise industry was truly established as big business in the decade of the 1990s.

## *The Caribbean situation analysis*

The popularity of the Caribbean among holidaymakers is unquestionable, and is recorded in the top six regions in terms of tourism revenues (Jayawardena 2002). Millions of tourists every year travel to the Caribbean in order to experience first-hand what could be termed as the 'Holy Grail' of mass tourism – sun, sea, and sand (Durval 2004). For the cruise market, the Caribbean is an essential part of the global product, presently accounting for more than forty five percent of the world cruise tourism market share (CLIA 2002). Indications are that the popularity of the region will continue to increase (Mintel 2004).

Destinations such as the Caribbean have long been and continue to be the subject of much discussion regarding the ways in which the region and its people have been represented and portrayed within tourism promotion (Palmer 1994; Morgan and Pritchard 1998; Echtner and Prasad 2003; Pinnock 2012). The ubiquitous image most often associated with the Caribbean, a perceived commodity routinely packaged and marketed to tourist and cruise passengers, consists of a pristine and deserted beach of white sand, fronted by an azure sea and framed by iconic palm trees. This common portrayal of the region as a hedonistic pleasure beach purely for visitors' delight is very often far removed from reality and, it could be argued, merely a convenient image used for promotional purposes by commercial tourism organizations (Pinnock, 2012).

Such superficial and often cursory representations of the region as a holiday destination tend to gloss over the complex history of the Caribbean and ignore the darker aspects of the region's past including piracy, slavery, and colonial rule; and certainly the images used to promote cruise tourism do just that, with images of anonymous beaches, quaint harbours and ships being repeated endlessly in

company literature for the region. This rather anodyne treatment does not just occur in cruise brochures and other promotional material but is also replicated on board the ships. The reality is there are twenty-eight active cruise destinations in the Caribbean of which twelve are private islands, confirming the fact that the Caribbean can be relatively substituted by private islands making the product generic and faceless.

### **Size of cruise ships and on-board revenue**

The two largest sources of income on modern ships are bars and casinos (Dupoint 2004). In contrast to the 1970s and 1980s when cruise ship bars charged relatively little for beverages - they passed on to passengers - duty-free prices, cruise ships today price their soft drinks, wine, beer and liquor comparable to major hotels. There are a range of bars, including wine bars, piano bars and any number of theme bars. On average, only twenty percent of revenues from sales represent actual costs for the product (Huie 1995). Beverage sales are maximized by prohibiting passengers from bringing soft drinks or alcohol on board (Klein 2002b).

Casinos are a relatively recent but major revenue centre on board vessels. Over the years they have grown in size with larger ships, and because they are an effective source of income, casinos take up proportionately more space. Many of the casinos, like other revenue centres on cruise ships, are operated by a concessionaire rather than by the cruise line itself. The concessionaire pays for the space and shares a proportion of the revenues.

Often the third-largest centre for revenue is art auctions. First introduced by NCL in the mid-1990s, they are commonplace today. Passengers are attracted to auctions by the offer of free champagne and the entertainment value. They are shown serigraphs, lithographs, signed prints, etc., including art from well-known artists such as Picasso, Dali, Erte, and Chagall. The auctioneer provides background about the art, and emphasizes the excellent price available, suggesting that pieces may be had for as much as eighty percent off shore-side prices. USA Today cited a number of people who dispute this claim. In one case, the same piece of art bought on the ship was found at the neighbourhood K-mart and was being sold for a fraction of the price. Whether this is correct or not the point is that art auctions are big business. Park West Gallery, only one of the on-board art auctioneers, reported selling two hundred thousand pieces of art in 2000 (Yancey 2001).

Other traditional sources of income include bingo, spas, photography and space devoted to on-board shops has increased significantly. Rather than a small shop carrying a few sundries and some duty-free items, ships today can have as much as a four-storey-tall shopping mall (Cochran 2003). The same is true for spas, which have expanded into large-scale operations. Steiners Leisure Limited

provides services to the majority of cruise ships, although some cruise lines have experimented with in-house operations.

Communication services used to be limited to telephone. Internet cafes were introduced in the late 1990s, wireless Internet connections in 2002 and cell phone service the following year, beginning with Costa Cruises and following on with NCL in 2004. When NCL announced that it would introduce wireless telephone service, some lamented that passengers taking a cruise to relax and to get away from the routines of home will now be bothered by having to listen to someone talk about their stock options as they are on deck by the pool getting some sun. In a newspaper commentary Colin Veitch, CEO of NCL, points out that someone talking on their cell phone is no different from having a rowdy and boisterous person sitting close to you (Pain 2004;Westjet 2004). Time will tell whether wireless telephones present a problem. In the mean time, it will be a lucrative source of on-board revenue, but it also influences the nature of the cruise product and the cruise experience.

### New on-board revenue centres

In assessing revenue centre on board cruise ships from the 1980s, Klein (2009) identified a variety of activities through which cruise lines generates additional revenue. These includes:

- Ice skating and rock climbing,
- Golf driving ranges,
- Virtual reality games,
- Pay-per-view movies;
- In-room video games;
- Fees for yoga and fitness classes,
- Wine tasting and other activities such as a culinary workshops (for US\$395).

The concept of providing upscale entertainment at additional cost was introduced in the 1990s (Smart 2004). Cruise ships have minibars, automated teller machines (ATMs), and every other revenue centre found at a hotel or resort (Klein 2009).

Income has grown significantly from food. In contrast to the late 1990s, when Princess Cruises was criticized for charging extra for Haagen Dazs ice cream and Royal Caribbean was criticized for charging at its Johnny Rockets restaurant, cruise ships today have a range of food options, and most charge an extra fee. Passengers can spend money at cafes for pastries and premium coffees, and at 'extra-tariff' restaurants; an alternative to the normal dining venue where charges can range from three dollars and fifty cents US to thirty dollars US or more, plus beverages and tip. These optional dining experiences are available across the industry, from the a-la-carte supper club on board Carnival Legend to the Todd English restaurant on the Queen Mary 2 which charges thirty dollars US reservation fee.

The most recent generation of on-board income is seen in NCL America's charge ten dollars US service fee per passenger per day, which is paid through the passenger's on-board account. Previously, many cruise lines automatically charged passengers on-board accounts for gratuities, but the passengers had the option to raise or lower the amount of the charge. NCL America's fee is mandatory. Whether mandatory or not, money paid to a cruise ship as a service fee or as a gratuity is a source of income to be used to pay staff, and presumably to support other activities. Many workers report that they earn less money under this system than they did when they were paid tips directly by passengers (Klein 2009).

### On-shore revenues

A significant percentage of on-board income accrues from commissions earned from activities on-shore. Shore excursions programmes and shopping in ports are the major categories of on-shore revenue. They are convenient for passengers, fifty to eighty percent of whom buy a pre-booked excursion while in port, and contribute solid revenue to the shipping company – one half to one-third of the shore excursion prices are the real cost paid to companies offering the shore excursion. For example, a local company may only be paid twenty dollars US or less for a pre-booked excursion, which is sold to the passenger ninety dollars US on board the vessel (Klein 2002b; Sandiford 2003). According to Sandiford the cruise lines and their pre-booked shore excursion management company accounts for most of the revenues. This leaves the local shore excursion company to provide ninety dollars US value to the passengers from twenty dollars US.

Three companies dominate the shore excursion management programmes for the North American-based cruise lines. These include On-Board Media, International Voyager Media, and the PPI Group. The concessionaires arrange the excursion sales. However, in Alaska, the general arrangement differs from the traditional North American approach. In the case of Alaska, the large cruise companies operate and manage their own tour companies and own the infrastructure. For example, Carnival Corporation owns Westours and Princess Tours, which combined manages and operates the largest fleet of motor coaches and railway cars (Klein 2005a).

According to Klein (2005a), on-board promotions became a major source of income for the transnational cruise lines by the mid-1990s, and continue to grow today. As the vessels increased in size, they created more opportunities to offer wider varieties of onboard services, which have become main income stream for cruise lines. In the past, hotel staff including the cruise director collected commissions and royalties from shops on shore. This was later streamlined and taken over by the cruise ships themselves as mainstream income source (Reynolds 1995; Klein 2005a). Today, concessionaires manage this stream of income and the major share is left for the cruise lines. The concessionaire is increasingly being

squeezed as the cruise lines demand larger and larger margins. The largest, On-board Media, Louis Vuitton Moet Hennessy (LVMH); manages and operate a chain of shops on board several vessels. Like the PPI Group and International Voyager Media offers art auctions (Klein 2005a).

Klein (2003) went further to assert that a cruise ship might also derive income from onshore, not only from on-board sources. According to Klein, Panama in 2000, launched a new strategy to attract cruise ships, which went beyond the ordinary as they paid a fee per passenger landed in Panama to cruise lines. This fee stood at twelve dollars US per tourist landed and saw Panama moving from zero passengers to attracting multiple cruise vessels by 2003.

Some ports use cash incentives for reaching a target number of passengers. For example, San Juan, Puerto Rico rebates three hundred and sixty thousand dollars US to the cruise line for every one hundred and twenty thousand passengers landed (Guadalupe-Fajardo 2002; Klein 2003). In the case of The Bahamas, the island refunds half of the cruise passenger head tax, which amounts to fifteen dollars US if a cruise line lands five hundred thousand passengers or more in any one year. Similarly, Jamaica charges a gross fifteen dollars US per passenger head tax and in the case of Carnival and RCCL over fifty percent is refunded as rebate based on the large number of passengers landed in the island (O'Hara 2004; Klein 2003). Ports appear willing to offer incentives to ensure that cruise ships continue to visit, to the benefit of the cruise lines.

### **Major ports and islands served by major cruise lines**

The ideal itinerary includes a diverse variety of destinations with optimum distance between ports. This is even more important owing to the fact that sailing speeds are kept within economical range especially given the escalating global fuel prices. Cruising offers both quality and quantity itineraries where a variety of marquee and new ports are presented. The more ports of call on the itinerary, the greater the demand. In addition, the facilities in a destination determine if the ship can be docked alongside or be held at anchorage, and having to employ a tender to transfer passengers between land and the vessel, which could have major cost implications. Usually when a vessel is at anchorage the crew is at work for the entire time as the demand to operate the tender, safety and to monitor the vessel have to be kept going without any downtime. Infrastructure considerations include dependability of access to the port, political stability, safety and security. In addition the range of services that are available to cruise lines are also important, which include shore side attractions and airlift services. The table below summarizes the itinerary of Royal Caribbean's fleet in the major cruising islands of the Caribbean.

**Table 2:** RCI's Caribbean Itinerary Market Segments

Region	Cruise frequency	Length
Bahamas	Short cruises	2 -5 days
Western Caribbean	Weekly cruises	6 – 8 days
Eastern Caribbean	Weekly cruises	6 – 8 days
Southern Caribbean	Longer cruises	7 – 11 days
Trans Panama Canal	Long cruises	10 – 14 days
Trans Atlantic	Voyage cruises	14 + days

Source: Tercek 2009; Pinnock, 2012.

Different cruise segments have different ports that are desirable. For example, in the luxury segment, visiting exotic places are of paramount importance (PSA 2003). According to Lingard (2002) the wealthy and experienced cruisers are drawn to less trampled parts of the world. Cooper (1981) points out that the more affluent are drawn to smaller remote areas and sites. Conroy (2004) points out that timing and place are important in itinerary planning in luxury segment of the industry and often prefer exclusivity in that they do not like to be in a port with mass market cruise vessels (Lingard 2002). This factor has led major cruise lines to the concept of private islands.

### Private Islands

Private islands are another way to generate income. NCL was the first to introduce the concept. The innovation provided an alternative to landing passengers in already congested ports. It could also be used on Sundays when passengers would often complain about shore-side shops being closed.

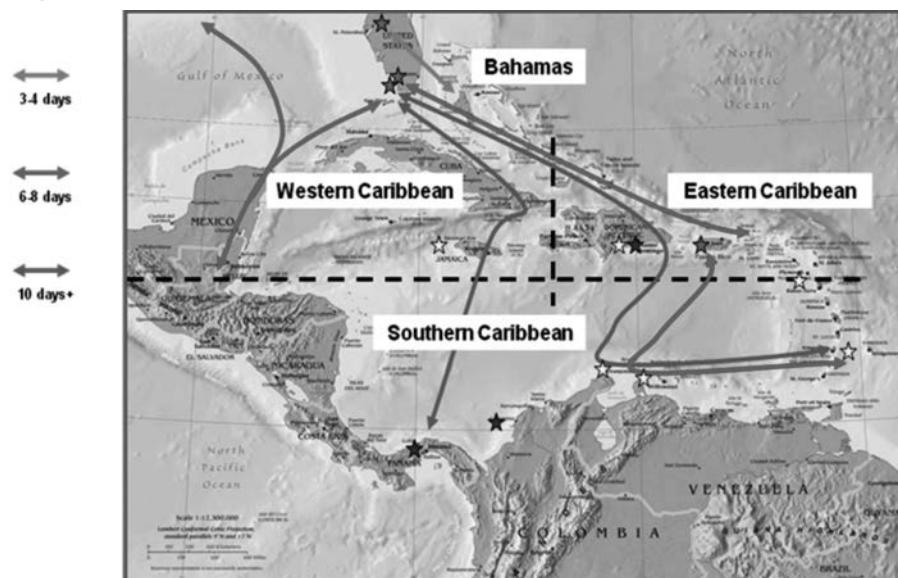
The private island has several economic benefits for the cruise lines. For one thing, passengers on a private island are a captive market. The cruise line runs all beverage sales and concessions, such as tours, water activities, souvenirs, and convenience shops. It has no competition; so all money spent on the island contributes to its revenue and profit. An added benefit is that passengers tend to enjoy the experience. This provides a positive impression of the cruise line and is an indirect source of increased revenue in the form of future passenger referrals (Lloyd's List 1991).

Private islands also contribute to the economic bottom line of the cruise line because of their location. Most are located in The Bahamas, Dominican Republic or Haiti. With a stop at the island, ships are able to save fuel by cruising at a slower speed between two primary ports. Rather than sailing non-stop from St. Thomas to Miami, a ship may reduce speed between the two ports with its

scheduled stop at the private island. The ship saves money and at the same time increases passenger satisfaction.

Furthermore, reducing costs is as effective a means of improving the economic bottom line as it is generating income. This has been a key force driving consolidation in the industry. There are clear benefits from economies of scale. Both Carnival and Royal Caribbean projected savings of one hundred million dollars US a year from the synergies achieved by their merger with P&O Princess and Celebrity Cruises. Carnival's experience indicates that actual savings have exceeded projections. There are multiple ways the industry, and in particular the cruise lines continue to turn water into money.

**Figure 1:** The four major Caribbean Cruise itineraries



Source: Tercek ,2009; Pinnock, 2012.: *The four major Caribbean cruise itineraries.*

### Port-City relationships and small islands

With the advent of mega cruise liners in the late 1990s, there has been a disconnect between the cruise ships visiting ports and the city in most Caribbean countries. In an attempt to increase the throughput of large number of passengers in the shortest possible time, new cruise terminal have been built. Majority of these terminal offer retail shopping and branded stores, but many owners find it difficult to cover the high cost real estate rental due to the high seasonality of the cruise shipping industry and low passenger spend. In the previous decade, the cruise ship season in many case would begin in early October and extend through to April and May. With the cruise lines receiving higher per diem in North West Europe, Mediterranean, and other globally competitive markets, the Caribbean

seasons has been shortened significantly and the number of calls reduced as the smaller high end ships have been replaced with mass cruise vessels. The stakes for the cities to attract and maintain cruise vessels are very high as they have been lured with the notion that bigger ships brings bigger profits and that each passenger leaves an average of US\$100 in the wake of each mega ship. Pinnock (2012) in assessment of the industry concludes that there is an inverse relationship between the size of cruise vessel and the net revenue that accrue to the destination. In the case of Falmouth, Jamaica where capital expenditure of US\$250 million dollars was outlay for the development of a new cruise terminal with many promised benefits to the local communities. This has translated into a mere illusion, while the Jamaican tax-payers are left holding the handle of the knife. Calculation reveals that it will take 289 years to repay the capital without interest and it will take 245 years for one taxi operator to recover the capital investment for one vehicle.

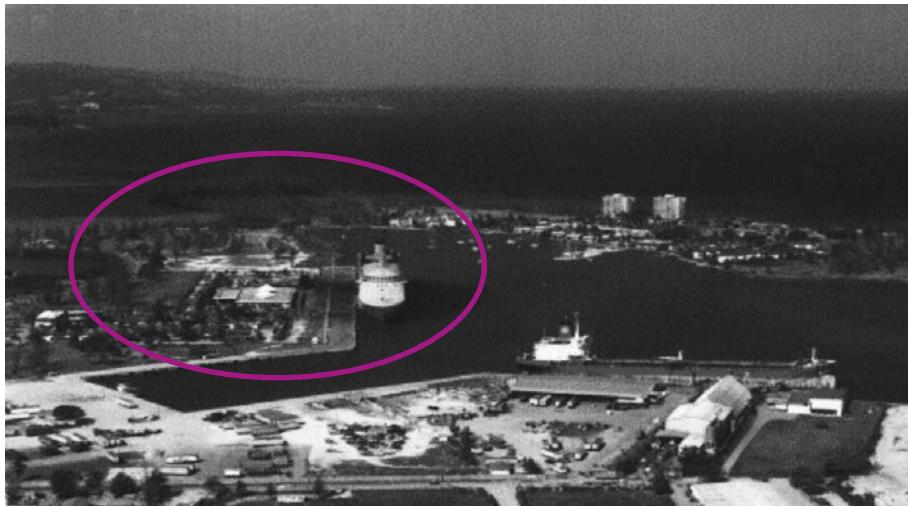
Many Caribbean countries have to resort to water taxis in helping to ease the congestion when cruise vessels are in port as the carrying capacity of these small islands are challenged. In fact in islands such as St. Maarten on days with multiple cruise ships in port, there are more cruise passengers on the island than local residents. Several local residents perceive cruise passenger as visual pollution. Based on the value that mass cruise tourism offers there is very little spend in the community of the local resident. On the other hand, most of the local shops carry the same line of products and does not offer much variety to the cruise passengers and with very little local high authentic products.

The Caribbean is not perceived for its culture, cuisine, and inherent beauty as many destinations such as the Baltic Europe and Antartica and hence the cruise lines always have the option of substituting one island for the other and in many cases the private islands. According to Pinnock (2012), the value capture by the cruise lines are very high and seventy cents of one dollar spent by a cruise passenger finds its way back to the ship. There is very little link between the port cities and the cruise ships as the passenger time in ports are highly structure and are concentrated on going on tours organized by the cruise lines and any spending on T-Shirts and trinket are usually done within two hundred meters of the ship accounting for the half an hour to one hour for departure from port. (see the figures below).

**Figure 2:** St. Maarten cruise ship port (integrated terminal facilities)



**Figures 3:** Montego Bay cruise ship port (low level of integration)



### *Revenue management for port authority, the city and the country*

Cruise lines have evolved in their operations and structure and have become highly sophisticated, efficient and profitable organizations. On the other hand, the Caribbean nations have done very little to improve their revenue streams and have seen the net reversal of income. The primary revenue to the port authority and the Government is

that of the passenger head tax which ranges from US\$1.00 up to US\$15 with the average hovering around US\$4 per head per country. Other nominal revenues include berthing fees of an average of US30 cents per meter per ship with the number of ships declining, as mega ships replace smaller ships. Capital costs escalating security costs and general operations and management costs are passed on to the government and Port Authorities with no increase in revenues. In the case of Falmouth Jamaica, the new port facility was built in 2011 sees the cruise lines collecting rentals from large duty free chains resulting in gross revenue exceeding that of the government by over 200 percent who is left with the entire overheads and operating costs for the port facility.

### **Evaluation of positive and negative impacts of cruising to island fragile ecosystems**

Industry experts have pointed out that worldwide cruise tourism currently accounts for about 2% of total world tourism. However, due to the industry's faster growth over the last two decades, its impacts for many island destinations and port cities are becoming relevant. Wood (2000), points out that numerous islands are already receiving substantially large number of cruise tourists than stopovers, and in many other regions of the world, the market for cruising is beginning to develop at a fast pace.

The opportunities for positive impacts of cruise travel on local governments and businesses appear undeniable, as the influx of ships and people generate significant revenues from head tax, port charges, and the purchase of goods and services. However, despite increased economic activity, there may be a net cost to an economy rather than a net benefit. Cruise expenditures can increase overall output in an economy, but only to the extent that these expenditures are greater than the increased costs of factor inputs (Chase and McKee, 2003). Thus, smaller island destinations may incur costs, which are relatively more substantial.

Pinnock (2012) examined a central question of whether the growth in cruise passenger arrivals translates into increased profit for the cruise lines at the extent of development for the Caribbean region. The anomaly of the Caribbean region receiving 50 percent of passenger deployment and less than 5 percent of gross revenue point to the inequitable balance of power between the cruise lines and the Caribbean region.

Social challenges are equally significant, particularly for isolated coastal and island communities, which are increasingly attractive to cruise visitors because of their lifestyles and local traditions. Nilsson (2007) suggests that when big ships arrive at small ports, the congestion which arises will have an impact, not only on nature but also on the traditions and social behavior of the local residents, similar to the St. Maarten example. Thus, cruising has the potential to affect even the most peripheral destinations, resulting in many "paradises lost" through development.

Therefore, while there is generally a positive perception of the cruise industry, specifically in terms of additional income to local businesses and governments

generated by cruise visitors, some smaller cruise destinations share mixed views of the value of cruise ship business to their tourism industries.

### **Employment generation**

Presently there is less than seven percent of the total crew working on cruise ships being Caribbean nationals. There is an imbalance with almost half of the world's cruise deployment taking place in the Caribbean, particularly against the background of a region with high unemployment. Most of the crew working on-board cruise lines operating in the Caribbean is from the Far East and East European countries. The logistics costs to get crewmembers to and from vessels are very high; these could be offset against higher wage rates if the Caribbean can be positioned to be a good source market. All the major flags from North West Europe and the USA stipulate a minimum percentage of nationals to be in the crew mix onboard vessels from their region. This could also hold for the Caribbean.

### *Governance for tomorrow cruise industry in the Caribbean*

According to Vollmann (1996), to dominate an industry is not just to attain but also to sustain influence. Two fundamental components of dominance are rivalry and power. Vollmann further points out that dominant firms usually have good infrastructure and strategy, and that they are typically goal and process oriented. Papatheodorou (2006); Pinnock (2012) argue, however, that in the cruise tourism industry, dominance is highly structured and market driven. The term applies to situations where market share is concentrated in the hands of a few major brands. In industries where concentration is in the hands of a few major firms, there is a risk that they will form an effective oligopoly using price-fixing, high barrier to exit and other covert practices to deter new entrants (Court of First Instance 2002; Papatheodorou 2006; Pinnock, 2012). These authors believe that the dominance per se is not necessarily a problem but it can easily lead to abuse of market power and anti-competitive practices which is a serious problem. In general, most regulatory authorities are concerned more with controlling the ability of a firm to affect the competitive environment and the customers as opposed to other competitors. Provided that a firm does not attempt to curtail competition, most authorities take the view that firms should not be penalized for being successful (Papatheodorou 2006).

In essence, the focus of the modern cruise tourism industry has shifted from the Caribbean destinations to the internal facilities of super post-panamax resort ships. The industry has been transformed in relation to its product and geography and the power balance has shifted in favour of the cruise lines. The Caribbean destinations approach to assessment of cost and benefits, environmental and social impacts needs to change for the industry to be sustainable.

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## **Capsule professionnelle 7**

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# **Valor Compartido: Rompiendo el paradigma para una nueva relación ciudad-puerto**

*Harald Jaeger*

*Gerente General Empresa Portuaria Valparaíso (EPV), 1998 - 2014*

*Franco Gandolfo*

*Gerente de Desarrollo y Negocios EPV*

*Cristián Calvetti*

*Gerente Asuntos Corporativos EPV*

*Marcelo López*

*Periodista Gerencia Asuntos Corporativos EPV*

*Cristián Moreno*

*Arquitecto Urbanista Gerencia Desarrollo y Negocios EPV*

## **Biographia**

**Harald Jaeger**, casado con 5 hijos, es desde 1998 el Gerente General de Empresa Portuaria Valparaíso (EPV). Se tituló de Ingeniero Naval Eléctrico en la Escuela de Ingeniería Naval de la Armada y, posteriormente, recibió el grado de Magíster en Ingeniería Industrial de la Universidad de Chile. Ha estado ligado a la actividad marítima, tanto por sus 18 años de servicio en la Armada, como por su desempeño en cargos ejecutivos ocupados en un astillero y en empresas del rubro naviero.

En otros ámbitos, destaca su participación en el desarrollo de proyectos del área inmobiliaria, eléctrica e industrial, para la reconversión de la zona del carbón en la VIII Región, durante 1997.

*Desde su actual cargo, le ha correspondido ejecutar la modernización de Puerto Valparaíso, proceso que contempla entre sus principales resultados la incorporación de inversión privada a través de la concesión del Terminal N° 1 de Valparaíso y recientemente del Terminal N° 2, el reposicionamiento comercial en el mercado de carga y de cruceros, y la reformulación del desarrollo del puerto en el ámbito de la seguridad para el comercio y la logística, mediante la construcción y concesión de la Zona Externa de Apoyo Logístico, consistente en un innovador sistema de infraestructura, procesos y tecnología de información para administrar eficientemente el alto flujo de acceso y salida de camiones al Puerto. En el ámbito de la Responsabilidad Social Empresarial le cupo impulsar la apertura urbana y turística del puerto, a través del Proyecto Puerto Barón, un Puerto Deportivo y otras iniciativas que han acercado el Puerto a la comunidad.*

## Introducción, miradas distantes e inquietudes

En Valparaíso, ciudad y puerto, acontece un fenómeno que en el contexto mundial -y en especial en el hemisferio sur- existe un desafío que hoy se discute abierta y ampliamente en todo el orbe: el problema de la desigualdad y la falta de co-responsabilidad en la ejecución de una gobernanza Ciudad - Puerto. Sobre todo, cuando el crecimiento económico no necesariamente ha venido aparejado de beneficios que se distribuyen equitativamente entre los habitantes del país.

Una realidad que quedó al descubierto luego del gran incendio de Valparaíso, en abril de 2014, el que dejó a más de 12 mil personas damnificadas. Se mostró el 22,6% de la población que vive bajo la línea de la pobreza<sup>2</sup>, algo que convierte a la zona en una de las más pobres del país, acorde a la encuesta CASEN.

Es en este contexto que se inserta la actividad portuaria - históricamente la industria más relevante de la comuna-, generándose un clamor en la convivencia y construcción de valor de la ciudad y del puerto. Pero el problema es que han ocurrido brechas en la relación Autoridades - Comunidad Organizada - Puerto, y no se han generado interacciones suficientes, tampoco *feedback* adecuado, ni una correspondencia de intereses que permita construir un espacio virtuoso de mayor valor común.

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<sup>2</sup> "Reporte Estadístico Comunal: Valparaíso" (en base a datos del Ministerio de Desarrollo Social y Instituto Nacional de Estadísticas, INE). Biblioteca del Congreso Nacional. Mayo 2012.

Esto coincide con otro asunto social, que adquiere protagonismo como objeto colectivo en las regiones de Chile, la demanda de mayor descentralización económica y política efectiva. Es aquí, donde en el actual Gobierno de la Presidenta Michelle Bachelet, se ha dado un paso, a través de la creación de una Comisión Asesora Presidencial, que entre otros aspectos busca identificar cómo fortalecer las capacidades regionales y locales, y de ese modo propiciar el desarrollo económico social apartado de la capital, para por ejemplo las ciudades puerto.

Naturalmente, en diálogos como éstos, surgen diversas iniciativas direccionaladas a capturar recursos de la actividad portuaria para beneficio local. Pero por otro lado, se genera un menor interés sobre cómo y qué necesita el puerto para mantener su vigencia en el concierto nacional e internacional.

### **Experiencia Internacional**

El 7 de mayo de 2014, Mario Cordero, asesor del presidente de Estados Unidos, Barack Obama, en materia marítima, presidente de la Comisión Marítima Federal de Estados Unidos y experto en sustentabilidad portuaria, señaló en el marco del Seminario Internacional «Valparaíso, Puerto Sustentable», organizado por Puerto Valparaíso y la Pontificia Universidad Católica de Valparaíso, que los proyectos de esta industria no sólo deben beneficiar a las empresas portuarias, sino que también a la comunidad. Esta visión es coincidente con el sentido profundo del Plan Maestro de Desarrollo de Puerto Valparaíso, que busca conciliar ambos aspectos, estableciendo una apertura del borde costero y relevantes obras de integración urbana en cada una de las iniciativas que apuntan a ampliar la capacidad portuaria con miras a los próximos 50 años.

Este trabajo que integra la infraestructura portuaria con ciudad, se lleva a cabo a lo largo de cuatro gobiernos, tres alcaldías y cuatro directorios de Puerto Valparaíso (el cual ejerce como autoridad portuaria), mostrando -por primera vez- la fortaleza de sus pilares al ser íntegramente internalizado en la nominación de Valparaíso ante UNESCO como Sitio de Patrimonio Mundial en el año 2003.

## *El valor del puerto en el crecimiento de chile*

### **El empuje del comercio exterior y el valor estratégico de la Industria Portuaria**

Chile es hoy la sexta mayor economía de América Latina, en términos de producto interno bruto (PIB) nominal, y la renta per cápita más elevada del continente. En este esquema, el comercio exterior se ha constituido como uno de los pilares, en especial desde fines de los '70, lo que sucede en especial por las políticas de apertura comercial, entre ellas la eliminación de restricciones a las importaciones - además de una incipiente rebaja de aranceles aduaneros-. Esto comienza a constituirse en una piedra fundamental del esquema económico nacional.

Es así como, en poco más de 30 años, Chile pasó desde tasas aduaneras para algunos productos cercanas al 750%, a constituirse como uno de los líderes con mayor apertura comercial, tras la decisión de llevar a 0% los aranceles para el comercio exterior nacional<sup>3</sup> al año 2015.

En este contexto, el Estado de Chile comprendió el alto valor estratégico de los puertos como foco de ese intercambio, lo que se refrenda en el hecho de que hacia 2012, un 92% del total de las importaciones y exportaciones chilenas se concretan a través de la vía marítimo-portuaria.

### **La necesidad de crecimiento portuario**

Siguiendo la tendencia internacional, los puertos chilenos, en especial los dos principales, Valparaíso y San Antonio, han experimentado un notable crecimiento desde la licitación de sus primeros terminales a operadores privados. Hoy, ambos puertos de la Región de Valparaíso, son responsables en conjunto del 46% del volumen total de las importaciones y exportaciones chilenas.

Al respecto, un informe de Inecon Consultores para el Ministerio de Transportes<sup>4</sup>, señala que entre 1987 y 2009, los puertos de San Antonio y Valparaíso anotaron una tasa anual de crecimiento promedio de su movimiento de carga cifrada en 11,6%.

En ese sentido, tanto Valparaíso como San Antonio han debido desarrollar planes de crecimiento de su infraestructura en el mediano plazo, lo que se subsanará con los proyectos en curso de ampliación portuaria que ejecutarán: Terminal 2 en Valparaíso, licitado en 2013 al consorcio español OHL Concesiones, y Puerto Central en San Antonio, licitado en 2011 al grupo inversor chileno Matte. Y, a más largo plazo, ambas empresas portuarias ya trabajan en los lineamientos y estudios de factibilidad de puertos de gran escala, permitiendo hacia el 2025 contar con una oferta de sitios portuarios adicionales suficientes para atender el comercio internacional chileno y el Corredor Bioceánico central entre los océanos Pacífico y Atlántico.

<sup>3</sup> "Arancel cero: fin del proceso de apertura comercial de 40 años". Mauricio Rodríguez Kogan. Artículo publicado en La Tercera. Mayo de 2012.

<sup>4</sup> "Asesoría para la elaboración de una Política de Desarrollo del Sistema Portuario para la V Región". Inecon – Ministerio de Transportes. Abril de 2010.

## *El desafío en Valparaíso: crecimiento y gobernanza ciudad-puerto*

### **Puerto Valparaíso, el Caso de crecimiento nacional versus Impacto en la Ciudad**

El Puerto de Valparaíso ha sido uno de los pilares del crecimiento que hoy tiene a Chile en el umbral del desarrollo. De esta manera, Valparaíso se ha configurado como el puerto pivote, responsable de un gran volumen de intercambio comercial y cultural del país.

Aunque hoy Valparaíso es el segundo puerto chileno en transferencia de contenedores, en el imaginario nacional y mundial continúa siendo “El Puerto Principal”, uno de los más activos de la Costa Pacífico Sudamericana y, el puerto más eficiente e innovador en el ámbito logístico portuario, con un modelo de paz social - en especial laboral- inigualable.

En la actualidad, transfiere más de 10 millones de toneladas de carga y por sus terminales se atiende sobre el 30% del volumen total del comercio exterior del país, a lo que se suman cerca de 40 recaladas de cruceros y alrededor de 90 mil visitantes cada temporada turística.

En ese contexto, y tal como ocurre en otros puertos del país y del hemisferio sur, Valparaíso enfrenta un doble desafío: continuar su crecimiento a partir de la Propuesta de Plan de Desarrollo, que esté acompañado por un proceso armónico y de cara a la ciudad.

### **Expectativa porteña se confronta a la realidad**

¿Cómo puede crecer Valparaíso? Sólo hay un punto común que se transforma el primer Desafío Emergente de la Gobernanza, fortalecer un mecanismo de participación ciudadana que permita escuchar, comunicar y participar a la comunidad organizada en la Planificación del Puerto. Esto resulta clave para la base del trabajo posterior entre los actores que la constituyen.

En medio del permanente debate acerca del rumbo que tomará la ciudad y de la mano de qué actividad principal (el turismo, las universidades o el puerto), una certeza es evidente: Valparaíso es una ciudad-puerto. Y es en el puerto donde está su futuro. Pero, ¿cómo amalgamamos esto que hoy presenta una brecha y una marcada desigualdad?

Por ello no es de extrañar que haya sido en Valparaíso, y por iniciativa de los alcaldes de las principales Ciudades Puerto (Valparaíso, San Antonio y Talcahuano), donde se creó en 2013 la “Asociación Nacional de Ciudades Puerto”. Esta entidad convocó a las 10 ciudades de Chile que albergan empresas portuarias estatales, y se puso a la cabeza de la “causa”, enarbolando como

ejes de su discurso tres demandas: participación municipal en la gobernanza portuaria; reforma legal ad-hoc; y establecimiento de un mecanismo que permita a las ciudades redituar del beneficio portuario.

## *Puerto valparaíso y la gobernanza*

### **Un aporte existente y reconocido a nivel internacional**

La discusión acerca de los aportes de la industria portuaria a sus territorios de origen no es privativa de Chile y, contrario a lo que se cree, el país en general y Valparaíso en particular, están lejos de ser los líderes de los malos ejemplos.

En septiembre del año pasado, por ejemplo, la Organización para la Cooperación y el Desarrollo Económico, OCDE, eligió a Valparaíso como una de las sedes para el lanzamiento del "Reporte Síntesis Ciudades-Puerto"<sup>5</sup>. Este texto señala con claridad que la condición para un crecimiento portuario exitoso y en armonía con la ciudad que lo alberga, radica en el desarrollo de políticas públicas que deben surgir de una alineación de intereses entre actores públicos y privados. En otras palabras, habla de la existencia de un proyecto en común para aumentar los beneficios del puerto como un elemento determinante para el éxito.

Un caso ilustrativo es Puerto Valparaíso en materia logística, la que se manifiesta en el retiro de más de 500 mil camiones al año del radio urbano, a través de una solución distinta en la industria portuaria, innovadora en materia logística y amigable con la ciudad, como es la creación de la Zona de Extensión de Apoyo Logístico (ZEAL). ZEAL es una instalación de 25 hectáreas a 11 kilómetros distante del puerto, donde se lleva a cabo toda la actividad de control, de fiscalización y coordinación de los camiones con carga para y desde el puerto, lo que permitió trasladar operaciones desde el borde costero, a sectores terrestres de menor valor de terreno y costos de intervención.

Esto permite una operación más sustentable para el sistema portuario y, sin duda, un aporte al equilibrio en la relación con la comunidad organizada y las autoridades, reconocido por OCDE, impulsando la sinergia y políticas de usos mixtos y convivencia ciudad - puerto.

Desde la perspectiva del beneficio económico directo, Puerto Valparaíso, junto a dos de sus cinco concesionarios, hace aportes a la comunidad en materia de responsabilidad social empresarial del orden de los US\$ 600 mil a distintas iniciativas de la ciudad, sin contar el pago directo de patentes al municipio, que también supera esa suma. En general, considerando el pago que realizan las empresas portuarias, de servicios y otras vinculadas a través del encadenamiento

<sup>5</sup> "The Competitiveness of Global Port-Cities: Synthesis Report". Edited by Olaf Merk. OECD Port-Cities Programme. 2013.

productivo que se produce en la ciudad, cerca del 22% de los ingresos municipales por derechos y patentes se crean a partir de la actividad puerto.

### **Impulsando el empleo y la identidad porteña**

Pero el beneficio de la industria portuaria no sólo es medible a través de los impuestos que deja en la ciudad. En Valparaíso, la actividad portuaria genera 12 mil empleos directos - que corresponden al 10% de la fuerza laboral de la comuna- y beneficios indirectos a más de 60 mil personas. Además, a través de un virtuoso encadenamiento productivo, de ella dependen de igual forma una serie de servicios que mueven más de un tercio del PIB comunal<sup>6</sup>.

**Figura 1:** Aporte del puerto a la actividad económica (PIB) – Informe UV 2008.

Item	Valor
Aporte al PIB Regional	5,31%
Aporte al PIB Comunal	33,17%

**Figura 2:** Aporte del puerto al empleo de la comuna – Informe UV 2008.

Item	Valor
Total empleo Comuna (incluye Trabajadores Eventuales)	11.681
% aporte empleo por Puerto	9,46%
Desempleo sin Puerto en Valparaíso	20.06%

**Figura 3:** Aporte del puerto al presupuesto municipal – Informe UV 2008.

Item	Valor
Aporte Porcentual sobre el total de ingresos por concepto de Derechos Municipales y Patentes	22,2%
Comerciales de todas las actividades de la comuna.	
Aporte porcentual sobre el Presupuesto Municipal.	15,9%

<sup>6</sup> "Evaluación del Impacto Económico de la Operación del Puerto en la Comuna de Valparaíso". Facultad de Ciencias del Mar y Recursos Naturales. Universidad de Valparaíso. Noviembre de 2008.

No obstante lo anterior, se entiende que esto no es suficiente, razón por la cual seguimos con atención el debate en materia de descentralización y su necesaria modificación normativa para poder concretarse. Sin embargo, queremos ir más allá, instalando la idea de que esta relación no es sólo debido a lo que el Puerto concretiza, sino que debe existir también una proposición desde la ciudad, la comunidad. Esto es algo nuevo, que demandará a las autoridades entender al puerto y sus necesidades básicas para subsistir y crecer si es necesario.

Es ineludible preguntarse qué conocimiento real tienen los municipios sobre los puertos que albergan, y cómo es posible que su aporte en valor económico, turístico y social múltiple pueda enriquecerse. De otro modo, es un diálogo asimétrico e inconducente a una solución de convivencia armónica. Por lo tanto es este el Segundo Desafío de la Gobernanza Emergente: las partes deben realizar un esfuerzo por conocerse, o dicho de otro modo, convertir al nuevo paradigma de la relación ciudad puerto en un proceso de Co-Responsabilidad.

## *Reforzando el rol del puerto con la ciudad: una tarea en proceso*

### **El Puerto en deuda con la ciudad**

A pesar de los esfuerzos del puerto para intensificar la vinculación con la comunidad, para lo cual se ha propuesto un Plan Estratégico de Sostenibilidad que genere valor para el entorno social, subsiste -en parte importante de la comunidad- la noción de que los aportes de la actividad siguen siendo insuficientes.

Al respecto, un estudio de la prestigiosa Agencia Veas Consultores (2013), que realizó consultas a 600 personas y entrevistas con 28 informantes claves de la ciudad, arrojó conclusiones contundentes, corroborando por ejemplo, la alta valoración emocional que existe hacia el puerto, entendiéndolo como parte del patrimonio de la comuna. “La actividad portuaria cobra relevancia como la que más identifica a Valparaíso por sobre todas las otras posibles (universidades, turismo, etc.). Es la parte funcional. El grado de valoración del puerto y la actividad portuaria es alto y transversal, y por tanto se espera que éste siga creciendo y siga siendo “el puerto principal”, todo un símbolo de identificación<sup>7</sup>”, señala en sus conclusiones.

Sin embargo, el propio documento añade que la percepción general sobre el valor del puerto en la ciudad, es un juicio que contiene condicionantes. “La actividad portuaria destaca positivamente por generar empleo y ser una actividad sólida que le da vida y sostiene a Valparaíso en términos de economía y desarrollo, pero

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<sup>7</sup> “Informe Final de Resultados. Estudio de Percepción sobre Valparaíso y el Puerto. Segmento Comunidades”. Página 40 Veas Consultores. Septiembre de 2013.

le falta contundencia o volumen en sus acciones, es decir, debe generar aún más empleo y preocuparse más por la comunidad, sus trabajadores y los beneficios para la ciudad”<sup>8</sup>.

El estudio confirma la percepción generalizada, posible de pesquisar en acciones como la mencionada “cruzada de los alcaldes”: si bien existe una noción de lo que significó el puerto en su pasado glorioso, hoy más bien lo que hay son expectativas asociadas a una futura mejora. “(Existe) la sensación de que la actividad portuaria está en deuda con Valparaíso”.

## **Gestión con Comunicación: visibilizando el valor del puerto en Valparaíso**

Bajo ese prisma, la evidencia indica que el puerto ha realizado esfuerzos por construir un modelo de gobernanza, distinto y desde lo local, pero necesita la articulación y co-responsabilidad de todos los actores involucrados en esta sinergia.

Con altos indicadores de eficiencia, incorporación de tecnología, liderazgo nacional de su comunidad logística, paz social en materia laboral (que ha significado 15 años sin paralizaciones portuarias), rol impositivo local acorde al máximo legal, altos estándares de seguridad en su operación y una mirada sustentable hacia el medioambiente y la ciudad, de todos modos su vínculo sigue siendo insuficiente.

¿Cómo, entonces, el funcionamiento del puerto se articula con la expectativa de Valparaíso? ¿Cómo se conecta la creación de valor de la actividad portuaria con la particular realidad de la ciudad? ¿Cómo se internaliza en la ciudadanía esta creación de valor?

Son varias las interrogantes que se han abierto. Y para la mayoría de ellas, como atisbo de respuesta, surge un diagnóstico que cobra validez: el problema no ha estado en la correcta gestión del puerto y sus activos, sino que en la forma en cómo todos los actores involucrados en la relación ciudad-puerto comunican y participan - comparten - esta creación de valor. En definitiva volvemos al principio de este documento: Comunicar, Escuchar, Participar. Pero luego agregamos una nueva componente: Entender e Involucrarse proactivamente las necesidades de la otra parte.

## **Cambio en el imaginario social portuario**

La percepción de los ciudadanos hacia el puerto y su importancia relativa para la urbe es positiva y valiosa. Sin embargo, es insuficiente e incompleta, porque el puerto ha estado durante décadas –con justificada razón, dada la alta competitividad del sector- centrado en materias propias de la industria,

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<sup>8</sup> Íbid. P. 41.

estableciendo un modelo logístico de eficiencia, que le han valido reconocimientos de los principales gremios del país y de organismos internacionales, como la Comisión Económica para la América Latina CEPAL, la Comisión Interamericana de Puertos (CIP) de la Organización de Estados Americanos (OEA), e incluso la misma OCDE. Pero todo esto no ha trasuntado en la valoración de estos logros por parte de su entorno más inmediato.

El imaginario social asociado al puerto de Valparaíso, entendido como la representación que los miembros de la comunidad han construido a partir de su convivencia cotidiana con él<sup>9</sup>, ha entrado en crisis y se ha debido modificar, sobre todo desde que la tecnologización de la faena portuaria dejó de crear un alto volumen de empleos directos, reduciendo la demanda de capital y trabajo por tonelada transferida. En su vida cotidiana, el porteño, que alguna vez tuvo a su abuelo, padres, hermanos o primos, trabajando directamente en sus faenas, construyó en las últimas dos décadas una representación distinta, convirtiéndose de protagonista –o directo beneficiario- en mero observador de la actividad.

## *El siguiente paso: integración de la comunidad en el crecimiento portuario*

### **Cambio en el paradigma portuario**

Habiendo cambiado el paradigma de la industria portuaria, tal como -desde hace años- viene ocurriendo en otras actividades productivas relevantes del país, ha trasladado el foco desde lo económico-logístico hacia una visión integral del puerto y en relación con la ciudad que lo acoge, resulta fundamental trabajar en una nueva forma de transmitir ese vínculo y crear Valor Compartido.

La teoría del Valor Compartido o *shared value*, de incipiente difusión en el mundo empresarial latinoamericano, propone invertir la lógica actual en que los ciudadanos perciben hoy a las empresas - puertos en este caso -, viéndolos como causa directa de los problemas sociales, ambientales y económicos, y por tanto restándole niveles abismantes de legitimidad. Sus creadores, Michael Porter y Mark Kramer, lo definen como la serie de “políticas y prácticas operacionales que aumentan la competitividad de una empresa, mientras simultáneamente mejoran las condiciones sociales y económicas de las comunidades en las cuales opera”<sup>10</sup>.

Dándole una “vuelta de tuerca” al modelo insuficiente que si bien generó el “milagro”, sólo puso atención al desempeño financiero cortoplacista, el *shared value* aspira a que las organizaciones - cluster portuario en nuestro caso -

<sup>9</sup> “Lo imaginario. Entre las ciencias sociales y la historia”. Juan Camilo Escobar. Fondo Editorial Universidad EAFIT. Medellín. Octubre de 2000.

<sup>10</sup> “Creating Shared Value”. Michael Porter y Mark Kramer. Harvard Business Review. Febrero de 2011.

creen valor económico y social en las comunidades en las cuales se insertan, reconectando el éxito empresarial con el progreso social.

### **Shared Value: articulación entre el beneficio y la expectativa**

Este planteamiento, en el caso de Valparaíso, podría marcar un camino para que finalmente, logren conectarse las expectativas del puerto con las de la ciudad, y en definitiva esta última perciba de forma distinta el aporte de la actividad. ¿Cómo conectarlas? He ahí el desafío fundamental que hoy se cierne.

La propuesta de Valor Compartido que el puerto debe hacer a la ciudad, por tanto, debe sustentarse en una capacidad de diálogo mayor, escuchar todas las voces y minoritarias, y avanzar a un consenso legitimado socialmente por el sustento económico y los beneficios que efectivamente puede brindar a la ciudad, y también al revés, el aporte de la ciudad al puerto.

En este círculo virtuoso empresa-sociedad, "se requieren líderes que desarrollen competencias y nuevas formas de conocimiento, así como una mayor consideración de las necesidades y desafíos de la sociedad misma"<sup>11</sup>. Una perspectiva innovadora de gobernanza, que involucre no sólo a la autoridad municipal en el espectro decisional del puerto y su crecimiento, sino también a la sociedad civil organizada, actores políticos y gremios preponderantes de Valparaíso, en espacios de diálogo que garanticen la incorporación de dichas miradas en el futuro crecimiento del puerto, lo que será fundamental.

Al respecto, creemos que no hay recetas tipo. Por eso creemos que el mejor relacionamiento del puerto con su entorno surgirá del genuino conocimiento y compromiso con el mismo. La clave, sin embargo, pasará por cómo el puerto aborda un Plan de Relacionamiento integral y efectivo con su entorno.

### **Todos juntos como Ciudad & Puerto**

Bajo este cambio de paradigma en la relación puerto-ciudad, y con la incorporación del concepto de Valor Compartido, podrán sentarse las bases para generar una instancia formal de encuentro, diálogo y participación.

Por eso se hace necesario explorar una Propuesta Integradora que involucre a todos, pero no desde el puerto, sino que desde en un nuevo "Objeto Colectivo" que movilice, organice y comprometa a la nueva gobernanza, junto a la comunidad organizada, con los líderes y autoridades, acortando brechas y rompiendo la desigualdad de las ciudades-puerto en el hemisferio sur.

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<sup>11</sup> "Creación de Valor Compartido". Estudio de Acción RSE. Abril de 2011.

Debemos abocarnos en esta Propuesta Integradora a un período de reflexión, escuchando a todos, nivelando a todos como actores principales en función de una relación simbiótica que involucre al otro (Comunidad Organizada y Autoridades). Sólo así se convierte al nuevo paradigma de la relación ciudad-puerto, en un proceso de Co-Responsabilidad necesaria para generar los acuerdos básicos de consenso y pasar luego al espacio de la Gestión del Entorno y a una Acción Participativa Empoderada.

Esto convierte a la Propuesta Integradora en el inicio de un camino que asume los desafíos emergentes de la relación ciudad - puerto, convirtiéndolos en la oportunidad para constituir en el Hemisferio Sur, un nuevo “Objeto Colectivo”, en resumen un nuevo Estadio en la Propuesta de Gobernanza Actual.

## **Capsule professionnelle 8**

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# **Port-city governance: Vancouver Case Study**

*Peter V Hall*

*Associate professor  
Simon Fraser University  
Vancouver - Canada*

## **Biography**

**Peter V Hall** is Associate Professor of Urban Studies at Simon Fraser University in Vancouver, Canada, where he teaches economic development, transportation geography and research methods. He received his doctorate in city and regional planning from the University of California at Berkeley, and he previously worked in local government. His research examines the connections between cities, sea-ports and logistics, as well as local economic, employment and community development. His publications include the co-edited "Integrating Seaports and Trade Corridors" (Ashgate, 2011) and "Cities, Regions and Flow" (Routledge, 2013), as well as numerous journal articles, book chapters and reports. > He is an Associate Editor of the Journal of Transport Geography.

## Introduction

Like just about every port city-region in the western hemisphere, Vancouver, British Columbia and its port grew up together. Or more precisely, because of physical geography and successive waves of infrastructure investment, the metropolitan city-region and a regionally dispersed system of port and related logistics activities have developed in concert. This intimate relationship delivers benefits to most urban residents, but also imposes heavy costs on some. Hence port-community conflicts are longstanding. The central goal of this chapter is to understand how the nature of these conflicts has changed as the port-logistics footprint has expanded into the city-region.

First, I describe the Vancouver city-region, in physical and spatial terms, but also as a functional economic region and a major trade gateway. Second, I describe the multi-level governance of the region, focusing on those agencies and organizations with particular importance to land use and transportation decision-making. Third, I describe the port, in terms of its spatial organization as a system of cargo operations and logistics activities, and then fourth as a decision-making and infrastructure investment system. I then put port and city-region together, recognizing that they are not really separable, and I conclude with an extended discussion of some current and emerging issues in the port-city relationship. A central empirical contribution here are the findings of a survey conducted in 2010 with municipal governments in the region about what they regarded as the most important conflicts between community aspirations, and port- and logistics-related activity. What will become clear is that the conflicts between communities and port activities persist as both the port industry and the urban region grow and change. A central challenge is how to design and redesign governance frameworks that can keep pace.

### *The city-region*

The Vancouver city-region, often referred to as the 'Lower Mainland', is home to about two-and-a-half million people. The City of Vancouver itself occupies a peninsula between the Fraser River and the Burrard Inlet. Suburban municipalities spread out from the region's core; on the north shore of the Burrard Inlet, south along the coast, and inland into the Fraser Valley to the east. Sprawl is however constrained by a combination of natural features, boundaries and policy choices. Urban development on the north shore of the Burrard Inlet is confined to a narrow strip of land due to the mountains that rise there. Southward, urban development is ultimately constrained by the United States border, while to both the south and east, successive provincial and local governments have chosen to limit urban development in agriculturally productive, ecologically sensitive and recreationally valuable lands. The tributaries of the Fraser River, and its delta branches, as well

as the Burrard Inlet, also form barriers that must be crossed by one of the region's multiple bridges.

Hence, despite relatively high urban densities by North American standards, Vancouver faces constraints on the availability of land. For the port and logistics industry, the general shortage of developable land is especially intense because of the city-region's vibrant post-industrial economy. Waterfront land is highly sought after by real estate developers, and the public demands commerce, parks and pathways along the water's edge. These desires play into British Columbian's strong environmental ethos; the region is home to some of the world's most influential environmental organizations. People move to Vancouver from more polluted and industrialized regions precisely so they can enjoy access to nature.

At the same time, Vancouver's post-industrial economy remains reliant on the movement of goods. As in other urban economies in the developed world, manufacturing has declined precipitously in its share of total employment: from over one-quarter of total employment in the 1950s, to less than one-tenth today. However other industries which also rely on goods movement have expanded rapidly. For example, construction in this popular migration destination accounts for as many jobs as manufacturing. Vancouver remains an important gateway for organizing and handling flows of imported consumer goods and exported raw materials. Canada's resource economy in particular both contributes to, and relies upon, the urban economy for physical connections (the port, but also rail and road access), value adding services (such as transloading commodities), and a variety of advanced legal, finance, managerial and consulting services. For this reason, the Federal and Provincial governments take a keen interest in the governance of the port.

## *Urban-regional governance*

In British Columbia, as in most parts of Canada, municipal governments are relatively weak. They have no independent constitutional standing and limited fiscal authority; instead, they are created by Provincial legislation. But they do have control over land use planning as well as certain service delivery responsibilities that make them important actors in urban development. The 23 local government entities which comprise the Vancouver metropolitan region range considerably in size, from less than 1,000 residents to 600,000 living in the City of Vancouver. Although they all form part of the same functional metropolitan economy, they have very different physical and economic relationships to the port and related industries. The port's physical jurisdiction touches a majority of the local governments, but in very different ways. Municipalities such as Vancouver, North Vancouver, Surrey and Delta host major marine terminals; others such as Richmond and New Westminster host major logistics and warehousing facilities; and others are traversed by rail lines (e.g. White Rock, Port Coquitlam) and

truck routes (e.g. Coquitlam, Burnaby). Only a few municipalities are not directly impacted by port activities.

An important layer of government sits between the local governments and the Provincial government. Metro Vancouver (official known as the Greater Vancouver Regional District) is a federation of the local governments responsible for bulk services, regional parks, and regional land use planning. In Metro Vancouver's most recent regional plan, the 2011 'Regional Growth Strategy', the municipalities committed themselves to protecting industrial land from being rezoned to other uses. This was in response to clear evidence that industrial activity (including that which is port related) has been displaced from the core urban areas over many decades. However it is not yet clear whether the new policy will succeed. Also central to the port-city relationship is Translink, a regional agency responsible for transportation planning, transit and a major roads network that is important for goods movement.

With respect to urban governance, it is also important to note that other actors which also exert influence. Higher levels of government can and do intervene in urban affairs, and in keeping with global trends, private sector actors play an increasingly important role in urban governance through organizations such as the Vancouver Board of Trade and the Greater Vancouver Gateway Council. Canada is a confederation of Provinces, with a complicated division of powers and responsibilities between the federal and provincial spheres of government. The Canadian constitution makes the federal government responsible for international and inter-provincial affairs, trade and infrastructure; hence the port authority is an agent of the federal government. The major railways are also regulated by the federal government. In contrast, the provincial government is responsible for highways, and so often becomes involved in the provision of port-related road infrastructure.

## *The port*

Vancouver's port is diverse in terms of the mix of commodities handled, which ranges from containers, automobiles and passengers, to breakbulks (wood, paper and metals) and bulks (coal, grains, metals and minerals, chemicals and fertilizer, forest products and petroleum). In 2013, the terminals of the port handled 135 million tonnes of cargo, involving trade with over 160 nations (see Table 1). And the port is also diverse in terms of its terminals; although the major marine terminals are clustered in a few locations, the port has jurisdiction over 600km of coastal and river shoreline, creating a diversity of operating and local land use contexts for port operations. The region's marine terminals are generally well serviced by rail, either by one of three continental railroads (CP, CN, BNSF) or a regional railway (SRY).

Bulk and breakbulk commodities form the historical backbone of the port's business. However, the real shift in port cargo handling in recent decades has been the growth in containerized cargo. A five-fold increase in container units handled since the late 1980s has seen the port rapidly move up the west coast container port rankings. It now lies third behind Los Angeles and Long Beach, having overtaken Seattle, Tacoma and Oakland. This growth has not resulted in the displacement of bulk and breakbulk commodities. Indeed, one of the successes of the port has been the transloading of some exported commodities into containers, so slowing growth in the region's empty container mismatch problem.

What growth in container handling has meant is that the port's regional footprint has expanded considerably. There are two major container terminals in the Burrard Inlet and one minor one on the Fraser River. But in 1997, the Deltaport container terminal at Roberts Bank opened. Located almost 40 km south of the Burrard Inlet, this facility was originally developed as a coal terminal. Container operations there have expanded rapidly, and future growth is expected. The terminal now defines one end of a west-east axis of container movement, transloading, storage, and intermodal transfer that extends from the marine terminal, along the new South Fraser Perimeter Road (SFPR), past the Fraser Surrey Docks and CN continental railyards in Surrey, to warehousing and logistics clusters in the suburb of Langley. Port regionalization in Vancouver has, for the most part, proceeded via expanded road transportation because efforts to stimulate short-sea shipping have fallen short. Roadway expansion, as we shall see, is a key source of tension between the port and local communities.

**Table 1:** Key operating statistics, Port Metro Vancouver 2013

	Tonnage	Units (vehicles, TEU, passengers, vessels)
Auto	378,883	378,883
Breakbulk	17,051,196	n/a
Bulk	92,735,975	n/a
Containerized	24,843,824	2,825,475
Cruise Passengers	n/a	812,398
Foreign vessel arrivals	n/a	3,166

Source: Port Metro Vancouver.

## *Port governance*

For almost 100 years, Vancouver area marine terminals fell under the jurisdiction of one of three port authorities, each with slightly different histories of governance, and vastly different operations. A 2008 merger brought together the large Vancouver Port Authority (responsible for the Burrard Inlet and Deltaport/Roberts Bank), the mid-sized Fraser River Port Authority, and small North Fraser Port Authority into a single entity which goes by the name 'Port Metro Vancouver' (PMV). Integration of the region's port authorities reflects, and has reinforced, the expansion of the port's footprint in the metropolitan region. PMV is a non-shareholder corporation owned by the Federal government, with a mandate to promote Canadian trade. The preponderance of power in the governance structure is held by industry; seven of 11 seats on the Board are appointed by the federal government from lists of nominees created by port users. The region's municipalities, provincial government, other western provinces and federal government each have one seat on the Board.

As a government-owned corporate entity, PMV enjoys considerable independence and regulatory authority. It operates as a 'landlord port', leasing its holdings of federal waterfront and submerged lands to tenants, and providing supportive hard and soft infrastructure. PMV has substantial borrowing powers, and retains a considerable surplus. In 2013, PMV generated consolidated net income of \$94 million from \$211 million in total consolidated revenue. It is also largely insulated against revenue claims by other governments. It pays the Federal government an annual stipend of about 3% of gross revenue instead of income taxes, and it makes Payments in Lieu of Taxes (PILT) to municipalities instead of paying property taxes. In 2013, the stipend and PILT accounted for less than \$11 million.

Protection of the port authorities' revenues for operations and infrastructure investment is however a double-edged sword. While PMV's spends generously on a variety of environmental and community initiatives and events, a fundamental challenge is that municipal governments have little direct financial stake in port growth. While the indirect benefits of port activity are undeniable, PMV's regular economic impact studies are not persuasive in comparison to arguments about the value alternative uses of waterfront land (e.g. residential developments), the small number of really good jobs created in direct cargo handling (e.g. longshoring) and the increasing number of less desirable jobs (e.g. port trucking), as well as the traffic and pollution externalities of cargo handling activity.

## *Port-city relationships*

All of this means that today we have a port with an increasingly regional impact, with considerable regulatory power and huge commercial success, but with a profound problem maintaining its 'social license to operate'. This is because

local governments do not have a strong incentive to support a port which is not accountable to them, and which delivers small net benefits in comparison to other economic activities. And, as long as the goods keep arriving (whether by ship, rail or road) and most people are employed in the service economy, residents of the post-industrial city see little reason to support what is (incorrectly) perceived to be a dirty activity.

There have been some efforts to improve the dialogue between municipal governments and the port via a series of consultative forums. Often these forums concern specific development projects. Attempts to create a permanent consultative forum between PMV and Metro Vancouver have been less successful, although this effort did reduce conflict around the level of PILT. The provincial government, which has a direct financial stake in many of the resource industries exporting via the port, also helped in this regard by capping property taxes on port industrial land, and compensating municipalities accordingly.

Indeed, what the port authority (PMV and its predecessors) and port-related industry lobby groups, such as the Gateway Council, have done with considerable success in the past decade is to turn to higher levels of government for political support and public resources for port-related infrastructure projects. The Asia-Pacific Gateway and Corridor Initiative (APGCI), officially launched in 2006, is the prime example of the success of this strategy. APGCI attracted considerable federal investment (and provincial funding, under a related strategy) to a series of highway, rail corridor and related projects to the Lower Mainland and beyond. But it also attracted negative attention, resulting in new port-community conflicts.

## *Community-port conflicts*

In this physical, economic and governance context, what types of conflicts arise between communities and the port-logistics industry? Which conflicts are felt in the different parts of the region, and which conflicts are regarded as more serious than others? When have governance structures been able to deliver results that leave both communities and port interests satisfied with the outcomes? In order to answer these questions, in 2010 we undertook an iterative research process that allowed us to identify the various types and sources of conflict related to port-logistics activity in a systematic fashion. It was especially important to avoid putting words into the mouths of respondents because port-community conflicts, while sometimes attracting media attention, are not widely understood. Hence the research faced the danger when asking municipal employees, let alone members of the public, what they viewed as conflicts of getting severely over-inflated ("everything wrong in our community is because those port trucks") or under-inflated ("we don't have a marine terminal in our community so the port doesn't affect us") responses.

The research process began with the identification of geographic clusters of port-logistics activity. Using address-matching of a commercial database of port, trucking, warehousing and port service firms, we identified preliminary clusters of activity. These were refined and more clearly identified through multiple site visits, resulting in the identification of 18 separate clusters. The clusters were geographically defined, including major nodes (e.g. the Burrard inlet marine terminals), industrial estates (e.g. Annacis Island, located in the Fraser River) as well as corridors (e.g. the route of the SFPR).

The second step was to search for cases of port-logistics conflict in each cluster using secondary sources, including media, planning documents and studies, and other published reports. Through this process, we identified 44 instances of conflict, and were able to create narratives of each. These narratives then allowed us to identify – using content analysis of the manifest and latent structures in each narrative – eight types of conflict and 12 categories of impact.

The type of conflict (see Table 2) refers to the nature of the site, infrastructure, corridor or triggering event; for example, the purchase or proposed conversion of farmland within the Agricultural Land Reserve by the port authority or port-logistics related industrial developers triggered conflict in three instances. The category of impact (see Table 3) refers to the substance or the content of the conflict between the community or municipality and the port-logistics industry; for example, many conflicts revolved around road and rail traffic impacts on communities, whether they are driven by the volume or emissions of current traffic, or the expected effects of infrastructure designed to affect traffic movements.

**Table 2: Types of conflict (8)**

Conflict type (# of instances)	Examples
ALR Farmland Conversion (3)	Gilmore Farm purchase, East Richmond
Highway expansions (10)	South Fraser Perimeter Road, Delta and Surrey
Mill Site Conversions (3)	Canfor, New Westminster
Parks, Habitat and Access (4)	Barnet Marine Park, Burnaby
Port Expansion (5)	Burrardview Cement, Vancouver
Rail (6)	Langley-Glover overpasses, City of Langley
Truck routes (8)	208th Street, Langley Township
Other (3)	

**Table 3: Categories of Impact (12)**

Traffic	This broad category includes concerns, complaints or protest over truck traffic, truck routes or enforcement of truck violations; and calls for traffic safety upgrades, traffic engineering projects, or congestion relief. Also included here are rail traffic concerns such as safety and congestion at road-rail crossings, or calls for overpasses or other grade separations.
Air Pollution	This includes any concerns about air quality, dust, particulate matter, diesel or other emissions, from industrial sources or vehicles, including trucks, trains and marine vessels.
Public Health	This category is often closely related to the first two issues. It would include any environmental health concerns because of industrial or vehicular pollution, or objections over residential proximity to industries and truck routes.
Light Pollution	This includes concerns or complaints about bright lights or light trespass from industrial areas or specific sites/businesses.
Land ownership / jurisdiction / use	This is a broad category, include issues such as: the conversion of agricultural land for port or industrial use; the conversion of industrial land for development (residential or commercial), or recreational use; the purchase of land in your municipality by the port authority; instances of land use designation or zoning changes involving industrial or waterfront land; or cases of conflicting jurisdiction over lands involving port or port-logistics activities.
Noise	This encompasses concerns, complaints or protest over noise from trucks (including engine brakes), trains (incl. whistles), industrial facilities, or noise pollution in general.
Parking	This issue involves concerns or conflicts over industrial or truck parking in residential neighbourhoods or vice-versa, including calls for related parking restrictions, enforcement, or the creation of additional parking opportunities.
Views	This includes any instance of objections to port-related or logistics projects or industrial uses because of view obstruction, or efforts to protect existing views or view corridors.
Wildlife Habitat / ecosystem	This category includes classic environmental concerns related to industrial activity, development, traffic, and/or related infrastructure such as: the destruction of or damage to wildlife habitat (including fish, bird, mammal, plant and other species) and/or ecosystems (particularly rivers and streams, wetlands, estuaries, and riparian areas); impacts on climate change or greenhouse gas emissions; and concerns about environmental sustainability.
Public Consultation	This issue would be flagged if public consultation was a point of contention or debate during a decision or planning process involving port-related activities. This would include calls from residents or public officials for more, better or different means of consultation.
Property Values	This would include instances when local residents, businesses, or others have concerns about the impacts of port-related activities or development on their property values, or on land values in general in the municipality.
Livability / quality of life	This is probably general enough to always be an issue for residents, but would be flagged if residents or others specifically identify impacts of port-logistics activity to their quality of life or the livability of their communities as a concern. In addition, many concerns can be considered as livability issues such as the need for parks, green space or waterfront access; or the promotion or preservation of neighbourhood walkability, safety or character.

Up to this stage, we had relied on secondary sources, but of course we could not assume that media and documentary records were complete or even accurate. Hence in the third step, we conducted interviews with municipal planning officials. We secured responses from 17 municipalities in the Lower Mainland region, representing most of those within Metro Vancouver (with the exception of the very smallest), as well as two mid-sized and rapidly growing municipalities in the Fraser Valley, namely Abbotsford and Chilliwack. These municipalities are traversed by the major continental rail and road corridors, and have seen increasing growth in warehousing activity linked to the port-logistics industry.

Open-ended interviews with planning and transportation officials in each of these 17 municipalities allowed us to confirm the nature and content of the identified conflict, as well as further refining the categories of impact. Based on these interviews, we removed 4 and added 2 instances of conflict to the list, resulting in a final list of 42 instances of conflict (these are the instances shown in the Tables).

Table 4 indicates which categories of impact were associated with which instances of conflict. Traffic and land impacts were the most common in port-community conflicts, but concerns about quality of life and public consultation were also associated with a majority of instances of conflict. In each type of conflict, these four categories of impact were experienced in at least one instance (i.e. no zeros in the column). Highway expansion, mill conversions and truck routes were always associated with traffic impacts; farmland conversions and parks/habitat conflicts were always associated with land impacts; and port expansions always raised public consultation impacts. Other categories of impact that were associated with a relatively high proportion of conflicts were air quality and noise. In contrast, impacts around lighting and views were associated only with specific instances of port (terminal) expansion, and parking impacts were associated only with conflicts over truck routes.

**Table 4: Types of Conflict (8) by Categories of Impact (12)**

Impact Conflicts (42)	Traffic	Air Quality	Public Health	Lighting	Land	Noise	Parking	Views	Habitat-Ecosys.	Public consult	Property Values	QOL
ALR Farmland Conversion (3)	33%	0%	0%	0%	100%	0%	0%	0%	67%	67%	67%	33%
Highway expansions (10)	100%	70%	50%	0%	90%	40%	0%	0%	60%	70%	20%	80%
Mill Site Conversions (3)	100%	67%	0%	0%	67%	0%	0%	0%	0%	33%	0%	67%
Parks, Habitat and Access (4)	25%	0%	0%	0%	100%	0%	0%	0%	50%	25%	25%	50%
Port Expansion (5)	80%	60%	20%	40%	80%	80%	0%	20%	60%	100%	60%	20%
Rail (6)	67%	50%	17%	0%	83%	83%	0%	0%	17%	33%	33%	83%
Truck routes (8)	100%	50%	25%	0%	25%	75%	13%	0%	0%	38%	50%	38%
Other (3)	67%	33%	33%	0%	67%	0%	0%	0%	67%	67%	0%	100%
All conflicts	79%	48%	24%	5%	74%	45%	2%	2%	38%	55%	33%	60%

Finally, we also developed a simple questionnaire to quantify the scale of the conflicts generated in each municipality in each category of impact. For each category of impact (i.e. traffic, air pollution, etc.) they were asked whether this was a,

- (a) Major Issue = 2. A major issue would be intense and/or was raised frequently, and became a focus of staff work and Council attention.
- (b) Minor Issue = 1. A minor issue would be something that has been raised but has not generated a great deal attention or staff work.
- (c) Non-Issue = 0. A non-issue would be something that has not been raised in the municipality.

This exercise allowed us to generate an average score for each category of impact, as well as an average score for each municipality. These results are presented in Tables 5 and 6. Note that here we made a methodological choice to ask questions about categories of impact in aggregate, rather than about specific instances of conflict. This is because not all municipalities could potentially experience all types of conflict: if you have no agricultural land, you cannot experience conflict over its conversion. Hence the results should be interpreted as a quantitative indication of a set of impacts resulting from port-community conflicts in municipalities in the greater Vancouver area.

Table 5 shows that municipalities located to the south and east of the region, essentially along the axis of port-logistics development anchored by Deltaport in the south-west and the continental railyards and highway-related logistics parks in the north-east, reported the highest average impact scores. These include the Tsawwassen First Nation and Delta, the municipalities hosting Deltaport; and Surrey, Coquitlam and New Westminster, the municipalities that host important truck routes, transloading facilities and railyards.

In contrast, municipalities to the north of the region (North Vancouver city and district) reported lower average impact scores, while centrally located municipalities had a more mixed set of reports. Low impacts were reported by Richmond which occupies an island in the Fraser River delta, moderate impacts in Burnaby and Vancouver, but a high level of impacts in New Westminster. Municipalities to the far east of the region, Chilliwack, Mission and Abbotsford, and to some extent Langley (city and township located in the mid-east), reported low levels of impact. This suggests that the expansion of port-logistics activity into such exurban locations is not yet associated with high levels of impact; indeed, they may still be welcomed by some in these jurisdictions.

**Table 5:** Municipal impacts: greatest to the south and east

Municipality	Average impact score	Location
Tsawwassen First Nation	1.58	South
Delta	1.50	South
Surrey	1.25	South-East
Coquitlam	1.17	North-East
New Westminster	1.17	Central
White Rock	1.00	South-East
Langley Township	0.88	Mid-East
Burnaby	0.88	Central
Langley City	0.83	Mid-East
Vancouver	0.82	Central
North Vancouver (city)	0.80	North
Chilliwack	0.75	Far East
Richmond	0.67	Central
Port Moody	0.58	North-East
Mission	0.50	Far East
North Vancouver (district)	0.33	North
Abbotsford	0.17	Far East

Table 6 provides further evidence that as the footprint of the port-logistics industry has extended from the waterfront into metropolitan space, the connective infrastructures between zones of activity are becoming more important as a source of conflictual impacts with local communities. For this analysis, we attempted to classify each impact category as to whether it was more route- or site-related, where route-related impacts occur along transportation corridors and site-related impacts occur at nodes of activity. In some instances, this classification is readily achieved; traffic impacts are route-related, views are site-related. In other cases, this calls for a subjective assessment of the narratives, and many categories of impact combine route- and site-related aspects. For example, noise impacts may be experienced at port terminal expansions (site) or along designated truck routes (route). Hence these are shown as Route/Site impacts, with the <, = and > signs providing some assessment of which class of impact, if any, predominates (i.e. noise impacts are more route-related, hence Route > Site).

The overwhelming conclusion of Table 6 is that route-related impacts such as traffic, noise and air quality impacts are felt by more intensely by municipalities than site-related impacts such as land, lighting, parking and view impacts. At the same time, route- and site-related impacts such as public consultation (more site-related), quality of life and property values also received high rankings. Hence the conclusion that route-related impacts are felt more intensely than site-related impacts should not be interpreted as saying that there are no site-related impacts.

**Table 6:** Municipal impacts: route over site?

Impact category (12)	Average score	Classification
Traffic	1.47	<b>Route</b>
Noise	1.18	<b>Route&gt;Site</b>
Public consultation	1.12	<b>Route&lt;Site</b>
Quality of Life	1.06	<b>Route=Site</b>
Air Quality	1.03	<b>Route</b>
Property Values	1.03	<b>Route=Site</b>
Land ownership, jurisdiction, use	0.94	<b>Route&lt;Site</b>
Wildlife, habitat, ecosystem	0.84	<b>Route=Site</b>
Public Health	0.63	<b>Route=Site</b>
Lighting	0.47	<b>Site</b>
Parking	0.41	<b>Site</b>
Views	0.26	<b>Site</b>

Instead, there are indications that governance mechanisms to address site-related impacts are better developed. This would be consistent with a general point of this chapter, namely that governance arrangements have not kept pace with the expansion of port activities across the city-region. The combination of the narratives of each instance of conflict and the data provided by municipal respondents allow us to make some preliminary comments about which types of conflict were more easily resolved. Table 7 shows that high degrees of implementation were achieved in mill site conversions and port expansions, as well as with highway expansions. However, half of farmland conversions (site), and half of rail-related (route) conflicts remained unresolved in 2010. Truck routes also remained a source of intractable conflict. It should also be noted in Table 7 that although many of the infrastructure projects implemented under the APCGI were a source of controversy and conflict, a majority of the port-community conflicts we identified in 2010 pre-dated 2000; indeed, some of these long-standing conflicts became caught up in the roll-out of the APCGI.

**Table 7:** Timing and outcomes of port-community conflicts, 2010

	Began before 2000	Part of APCGI	Classification		Outcome	
			Site	Route	Implemented, mitigated	Deferred, withdrawn or pending
ALR Farmland Conversion (3)	33%	0%	100%	0%	50%	50%
Highway expansions (10)	80%	100%	0%	100%	80%	20%
Mill Site Conversions (3)	0%	0%	100%	0%	100%	0%
Parks, Habitat and Access (4)	75%	25%	100%	0%	75%	25%
Port Expansion (5)	40%	40%	80%	20%	100%	0%
Rail (6)	33%	67%	17%	83%	50%	50%
Truck routes (8)	75%	13%	0%	100%	57%	43%
Other (3)	100%	0%	.	.	0%	100%
All conflicts	60%	43%	41%	59%	70%	30%

## Conclusion: Responses to conflict and looking to the future

It should be noted that this research was conducted in 2010. Since that time, public interest and concern about port activities has increased dramatically as a result of proposals to ship increased volumes of controversial commodities, oil and coal, through Vancouver area terminals. In one recently approved proposal, coal from mines in the United States will be brought by rail to Fraser Surrey Docks, transloaded onto barges and shipped to Texada Island in the Georgia Strait, and from there loaded onto freighters for trans-Pacific carriage. The proposal was opposed by residents along the route of the rail corridor, and a coalition of environmental and community health activists. Several municipalities, Metro Vancouver and the district medical officer of health also expressed opposition to the project. Hence approval of this project permit has come at some cost to public support for port-logistics activities more generally.

An equally controversial proposal is one that would see a more than doubling of the capacity of an oil pipeline between Alberta and a facility in the inner waters of the Burrard Inlet. Public and policy attention has focused on the regulatory and permitting process around the pipeline expansion, but the prospect of increased oil tanker traffic and dredging in the Inlet has also raised public concern. The Cities of Vancouver and Burnaby have formally opposed the proposal, and a large coalition of environmental organizations, First Nations and residents have expressed opposition. Both of these instances of conflict combine route-related concerns that extend across the city-region, with newer concerns about global climate change and more traditional maritime-centric port-community concerns.

How are the port authority and municipalities responding to the increasingly regional, route-related conflicts identified in this chapter? Responses from municipalities can be classified in three groups. Some are striking back, opposing port activities through a variety of tactics; from not acting to protect industrial lands, to opposing specific commodities, to attempting to change truck route designations. Others have a more mixed response, supporting industrial lands protection, but raising concerns about specific port-related impacts. There are also examples of municipalities engaged in proactive attempts to mitigate the impact of port activity. For example, the Corporation of Delta has joined with a small municipality in the interior of the Province, and the operator of an inland rail terminal, to propose a strategy to reduce truck trips in the region by developing transloading facilities at the inland location. What is remarkable about this effort is that unlike inland terminals in Europe and elsewhere, the lead is being taken by municipal governments and not the port authority or a terminal operator.

From the port side, whereas the 2000s were a period of rapid expansion of connective infrastructure, land has been a focus of the first part of the current decade. The port is engaged in a land use planning exercise, developing a detailed parcel-level guide to permitted uses. This approach entails a permissive approach to commercially leased port lands, and a protective stance towards other port lands. The port authority has devoted considerable resources to consultation in the planning process, without giving up any real decision-making authority. PMV has also become a more active role-player in the region's industrial land market. The port lobbied municipal governments in support of the industrial land use protection provisions included in the Regional Growth Strategy. It has also acted to purchase industrial lands that have come onto the market. Federal ownership of these lands protects them against municipal rezoning for residential and commercial uses, but leaves communities feeling they cannot control unwanted land uses and impacts.

This erosion of legitimacy and support for future expansions and developments is a growing challenge for Vancouver's port-logistics industry. Although Canadian ports have considerable autonomy in how they use their waterfront lands, the efficiency of these marine terminals depends upon facilities and connections that extend right across the metropolitan region. It is there where the conflicts and impacts are being felt most intensely, and it is there where governance mechanisms for timely, legitimate and accountable decision-making are weakest. It is time for local and regional governments to be given both a stronger stake and a stronger voice in the governance of the port.

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## Partie III

### Smart Port-city : essais prospectifs

#### Capsule professionnelle 9

### Le rôle de la culture dans les nouvelles modalités de la gouvernance ville-port

*Marlène Renault*

*Doctorante et Chargée d'études Culture*

Agence d'Urbanisme de la Région Havraise et de l'Estuaire (AURH)  
Le Havre - France

## Biographie

**Marlène Renault** est doctorante en sociologie, chargée d'études culture à l'Agence d'Urbanisme de la Région Havraise et de l'Estuaire. Après un diplôme en Mode et Environnement à MJM Design Graphic Paris, elle démarre son parcours chez France Télévision pour les programmes de William Leymergie comme assistante journaliste auprès de Sylvie Adigard ; elle développe alors des compétences en techniques d'entretiens et en logique d'images vidéo. Parallèlement elle s'investit dans plusieurs associations à dimension culturelle dans lesquelles elle milite pour l'accès à la culture et les droits culturels des citoyens. C'est dans une logique de rapprochement de ces deux centres d'intérêt qu'elle décide de reprendre un cursus universitaire et de se lancer dans la recherche en Sciences Humaines et Sociales sur le sujet de « Culture et Développement Durable ». Après avoir obtenu son Master ITC à l'Université du Havre, elle rejoint l'équipe de l'AURH en 2011 pour mener à bien sa thèse avec une Bourse Doctorale Régionale et Industrielle. Dominique Dhervillez, Directeur, et Antoine Rufenacht, Président de l'AURH, lui confient une étude qui questionne la « culture comme levier de développement des territoires estuariens », et en particulier celui de l'Estuaire de la Seine. Marlène Renault mène un travail universitaire dynamique et innovant dans sa méthode en associant au travail scientifique textuel, un travail filmographique des entretiens menés sur les territoires considérés.

« Il s'agit de concevoir la culture non pas comme un secteur d'activité ou comme un ensemble de pratiques artistiques, mais comme un cadre de réflexion ».

JM. Lucas

Tout le monde savait que c'était impossible. Il est venu un imbécile qui ne le savait pas et qui l'a fait.

Marcel Pagnol

# Introduction

Dans le monde interconnecté d'aujourd'hui, force est de constater que la culture a le pouvoir de transformer les sociétés. Ses diverses dimensions enrichissent tous les aspects de notre vie quotidienne, elle est source d'identité, de cohésion, de créativité et ceux-ci participent à fonder des sociétés du savoir dynamiques, innovantes et florissante. Seule une approche du développement centrée sur l'humain et fondée sur le respect mutuel et le dialogue ouvert entre les cultures peut conduire à des résultats durables, inclusifs et équitables. (Unesco, 2005)

## *Les dimensions économiques et sociales de la culture*

### **Une économie de la culture et de la créativité**

Au cœur de notre quotidien, l'innovation influence et modifie notre rapport au monde. Dans cet environnement mouvant, la créativité, le savoir et l'accès à l'information, ou économie créative doit être mobilisée en tant que moteurs de la croissance économique et du développement.

Le terme « créativité » comme le mot culture, recouvre plusieurs acceptations, elle regroupe la création artistique et culturelle, mais pas seulement. Cette approche implique l'innovation sociale, les inventions scientifiques et les innovations technologiques. « La créativité comporte un aspect économique observable parce qu'elle contribue à l'esprit d'entreprise, encourage l'innovation, augmente la productivité et favorise la croissance économique. » (K.Vianio, 2014).

La créativité est basée sur l'originalité, imagination, inspiration, ingéniosité et inventivité, elle cherche à résoudre des problèmes en observant ce qui se pratique dans d'autres disciplines sans a priori.

### **Un principe collaboratif**

La question de la culture et du territoire, à l'heure des réflexions sur l'attractivité, occupe une place centrale pour les collectivités, point de liaison entre économie et créativité. L'action urbaine se réinvente dans un processus associant urbanisme, événements, formation, expérimentation. Il s'agit de développer, dans une logique de réseau, des synergies autour des filières culturelles, créatives et de recherche dans un objectif d'attractivité internationale. L'intérêt est de regrouper en un même lieu ces établissements d'enseignement et de recherche, des *start-up* ainsi que des équipements à dynamique culturelle, des espaces de convivialité et de divertissement. Nous nommons ces lieux des clusters. Les clusters culturels font partie de ces points de regroupements et ils sont encastrés dans une série de liens sociaux déterminants pour leur trajectoire (Greffé X., Sagot-

Duvauroux D., 2013). Ces clusters s'appuient sur les atouts locaux, ce qui leur confère une soutenabilité. La principale idée pour les collectivités, consiste à installer des clusters créatifs et recréer un milieu économique avec la capacité de mobiliser les ressources qui jouent un rôle sur le territoire et qui n'ont rien à voir et sont ignorées de l'économie industrielle. Les Cluster ont des relations très fortes avec d'autres clusters, les industries, les Associations culturelles et sportives... (Karlsson C., 2013).

En s'inspirant de la ville de Montréal, Patrick Cohendet, Professeur d'économie à HEC Montréal essaie de dépasser les visions du cluster selon Mickaël Poter, qui consiste à dire que rassembler les entreprises de même domaine crée des opportunités, et celle de Richard Florida qui lui émet l'idée de rassembler des individus talentueux, ce sont des approches très statiques du cluster. Pour Patrick Cohendet la dynamique de la créativité est liée à des interactions entre trois couches : l'Upperground, le Middleground et l'Underground.

L'Upperground, correspond aux firmes créatives, les institutions, les ports, les CCI, les musées, les bibliothèques.

L'Underground, est représenté par les artistes, les acteurs culturels, les lieux de talent, qui ne sont pas sur *le marché marchand* mais qui malgré tout veulent se faire reconnaître par leur communauté, leurs pairs, en expliquant leur art.

Le middleground, est le lieu où ces communautés se rencontrent, trouvent des modes d'exploitation pour aller vers les forces d'innovation. Ce sont ces lieux qui ont toutes leurs importances car ils sont des lieux d'intermédiation, de connaissance, de création, d'innovation, de monstration. Ils provoquent des relations cognitives durables entre les gens et les projets. Ces middleground se trouvent généralement dans des endroits où il y a des friches, beaucoup d'espace à recréer et une population qui veut montrer son potentiel. (Cohendet P., Simon L., 2009).

C'est en se frottant au monde, en entretenant des coopérations avec d'autres acteurs, entrepreneurs, chercheurs que nous élaborons progressivement de l'innovation. Il faut sans cesse questionner le modèle économique et social pour puiser ses richesses dans l'économie de la contribution. « Comme l'avance Jeremy Rifkin (2012), ce nouveau modèle pourrait plutôt s'appuyer sur le déploiement des nouvelles technologies qui suppose des changements comportementaux, avec une nouvelle relation aux savoirs, aux autres, avec plus de co-construction, de collaboration, où chacun est acteur de son environnement ». (Creative Wallonie, 2013). Les villes d'aujourd'hui ne doivent pas seulement être créatives mais participatives et attractives.

### **Une citoyenneté participative et culturelle**

A l'heure de la globalisation de l'économie, de l'effacement des territoires, de la perte de légitimité de politique et de démocratie, de transfert vers le marché et

le commerce sur le plan de la culture et sur le contenu culturel, nous sommes à un moment de nécessaire refondation, de réinvention, de prendre des risques. Les laboratoires doivent remplacer les entrepôts. Même si technologiquement les avancées sont mesurables, nous sommes dans une situation où les enjeux de citoyenneté et de vivre ensemble touche l'humanité.

La citoyenneté culturelle pourrait constituer une réponse en favorisant de nouvelles synergies et contributions tant par les engagements des artistes, des institutions, des politiques que des citoyens pour encore mieux faire vivre les valeurs intrinsèques de la culture. (Brault S., 2014). L'aspect culturel de la citoyenneté permet d'être la voix par laquelle la citoyenneté va prendre plus d'ampleur que l'économie et la politique, par laquelle le citoyen va prendre ces responsabilités dans son quartier, dans sa ville. Nous sommes dans une logique de transfert du pouvoir vers la base, vers finalement une démocratie au sens strict du terme. Il y a là une volonté d'expression, de co-construction, de partage des citoyens. La révolution numérique a donné des outils aux citoyens : choix d'interroger les contenus culturels, d'être des émetteurs de contenu. Le progrès et l'amélioration de la citoyenneté culturel, ne doit pas se réduire aux nombre de billets vendus, mais doit être envisagé comme le moyen d'enrichir et de donner davantage de pouvoir, de contrôle dans la vie quotidienne des citoyens. La citoyenneté culturelle permet une citoyenneté partagée. L'expérience culturelle et l'approche par la culture remettent en question les formats d'échanges, permettent de passer du transactionnel au relationnel et de dépasser l'expérience du plaisir esthétique.

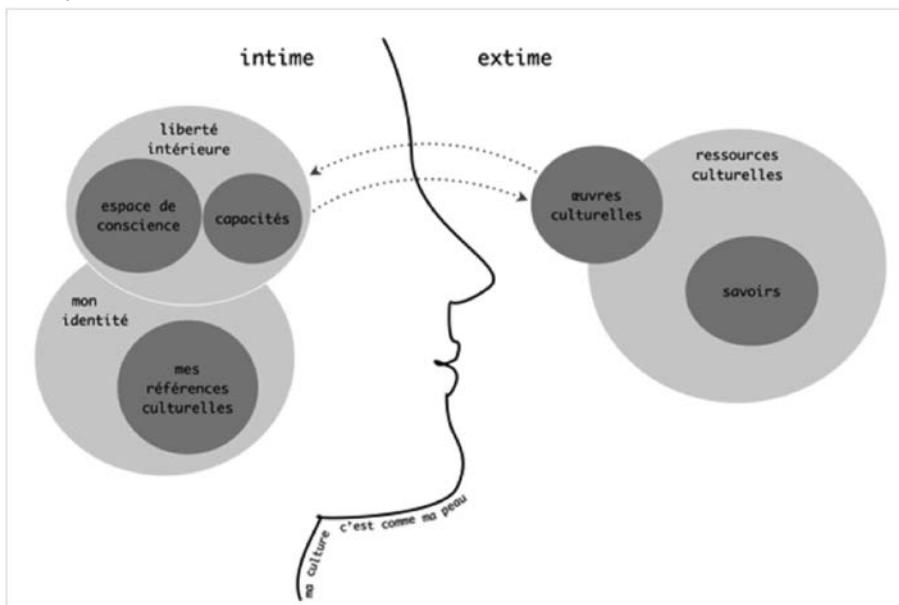
## *Modelage d'une nouvelle gouvernance : une gouvernance culturelle partagée ville et port*

### **Les Ports... Une diversité culturelle en héritage à valoriser**

L'espace portuaire et les habitants sont des vecteurs de l'histoire et des mémoires. Etre habitant d'une ville portuaire c'est d'abord vivre sa ville et reconnaître son port, par conséquent, c'est se nourrir des origines et des vécus de la ville : histoire ouvrière et portuaire, mais aussi mémoire de l'immigration, mémoire de la traite négrière, identité urbaine...

« L'investissement des habitants dans la vie de la cité sera d'autant plus fort que chaque individu se sentira reconnu dans sa singularité, accompagné dans ses propres pratiques. ». En ce sens, la valorisation, la conservation, la transmission du patrimoine ville-port, sont essentielles et les pratiques culturelles sont inévitablement le moteur de toute démarche participative. Redonner aux habitants la possibilité d'être acteurs et auteurs d'initiatives culturelles, veiller à stimuler l'engagement citoyen et les projets communs en évitant toute forme de consommation culturelle. « Faire vivre la diversité culturelle nécessite ainsi de savoir définir collectivement des modes de régulation, au plus près des problèmes concrets

posés [...] Vivre ensemble dans un contexte de développement durable exige de penser globalement, d'exercer une solidarité élargie, au-delà des seules frontières territoriales et nationales » (Ateliers du développement durable - Ville de Nantes, 2013). Dans sa riche diversité, la culture a une valeur intrinsèque aussi bien pour le développement que pour la cohésion sociale et la paix. L'UNESCO l'a récemment érigé en principe fondamental du droit international, par le biais d'une Convention. La déclaration de Cotonou du 15 juin 2001 affirme que « la diversité culturelle constitue l'un des enjeux majeurs du XXI<sup>e</sup> siècle ». « Observer ensemble, c'est aussi chercher ensemble les valeurs à observer ; c'est donc se former mutuellement à exercer ce partage de savoirs nécessaires pour élaborer des stratégies qui répondent aux difficultés analysées. Observer une situation au regard des droits culturels, c'est déjà les mettre en œuvres » (Meyer-Bisch P. 2013).



Source : PATRICE MEYER-BISCH – Université de Fribourg - 2013

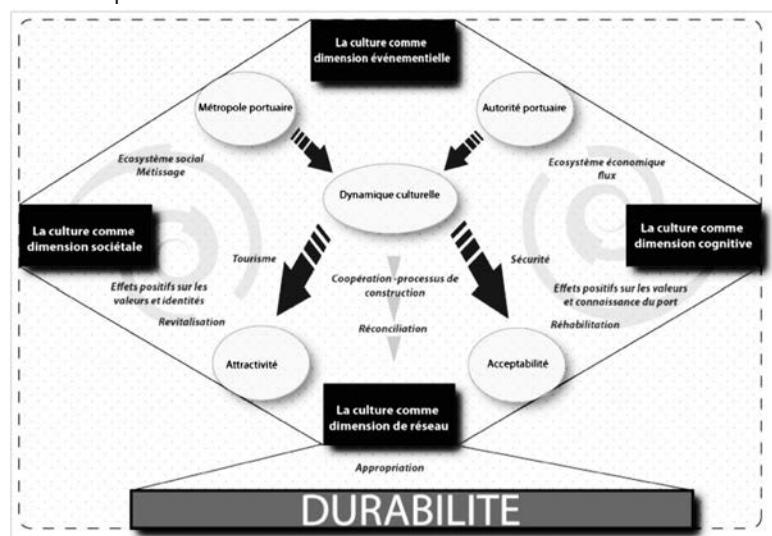
### Les enjeux d'une régénération de la zone d'interface urbano-portuaire

Après les transformations du port (recule du traitement du cargo) des territoires se sont libérés sur le port en centre-ville, ce qui a donné une nouvelle structuration de la ville, à travers des zones résidentielles, des zones touristiques, récréatives et culturelles, éléments moteurs de l'économie et au cœur des stratégies urbaines. Cette nouvelle configuration a également changé le regard des habitants sur le port, de plus en plus éloigné et replié sur lui-même. Associé à un *no man's land*, le port est rarement célébré comme un lieu de créativité. Etre une ville créative et culturelle ce n'est pas seulement avoir des équipements, et faire

de nombreux événements avec un certain taux de fréquentation, il faut être une ville avec une âme, où il est facile de vivre, où les habitants prennent du plaisir à y vivre.

Pour cela les villes et les ports doivent envisager de nouvelles stratégies, de nouvelles formes d'entente et de gouvernance. En premier lieu, il a été établit que les ports ne peuvent plus se contenter des activités uniquement des activités portuaires. Dans une démarche de stratégie de développement durable, ils préconisent une utilisation plus souple des organisations et équipements portuaires. Les installations culturelles autour et dans le port ont des effets très positifs sur les autorités portuaires et municipales, et très bénéfiques pour le port et pour la ville. Ces installations, musées, amphithéâtres, universités ont permis un changement de physionomie de la ville, de sa relation au fleuve. Le citoyen s'approche du fleuve et se réapproprie ses rives. Cela génère une organisation territoriale contemporaine et donne lieu à une mise en valeur d'anciennes structures portuaires comme symbole de l'histoire.

La zone portuaire est également une fenêtre de compréhension sur son environnement, aussi bien technique (ingénierie des côtes, des logistiques, du maritime) que humain (héritage de la ville maritime, d'une identité maritime, d'un grand métissage, d'une diversité culturelle), la culture intervient comme élément cognitif et d'acceptabilité.



Source : MARLENE RENAULT – AURH/Université du Havre. IDEES Le Havre- 2014

Les aménagements culturels dans et autour du port ont vu l'arrivée de millions de visiteurs, la culture œuvre pour mettre en évidence les avantages économique et sociale, d'innovation, d'identité communes et partagées, afin de rendre ces villes portuaires plus attractives.

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## **Capsule professionnelle 10**

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# **Port Center: to develop a renewed port-city relationship by improving a shared port culture**

*Hilda Ghiara*

*Research Fellow*

Department of Economics - University of Genoa  
Italy

*Philippe Demoulin*

*General Manager*

Havencentrum  
Antwerp - Belgium

*Greta Marini*

*Project Manager - Leading the group*

*“Port Center Network”*

International Association Cities and Ports  
Le Havre - France

## **Biography**

**Hilda Ghiara**, Research fellow with tenure, DIEC (Department of Economics - University of Genoa Italy) and member of the scientific board of the Italian Centre of Excellence for Integrated Logistics. Responsible of a full module (Department of Economics), University of Genoa (Maritime and Port Economics). She is Project manager of international research programs financed by the European Union and other private and public institutions. She has been member of the Scientific Board/Teachers

*Committee of the following university masters: "Governance and urban planning", "Ports, Transports and Territory", "Planning and Management of Transportation and Logistic Systems". Author, co-author or editor of several scientific international publications, since 2009 she is member of the Genoa Port Center Board (Port of Genoa Exhibition & Education Center). He was a speaker/session chairman at nearly 20 scientific and professional conferences.*

**Philippe Demoulin** is the general manager of the Havencentrum in Antwerp, Belgium, a position he assumed in 2006. He holds a master's degree in Management (KU Leuven) and a diploma in International relations (SAIS, Johns Hopkins University). He started his career with Alcatel as their permanent representative in Tanzania, sales coordinator for Russia, and business development manager for investment projects. He subsequently was Vice-President Global Business Development for the call center service provider Sitel, and deputy managing director for VKW. His main interests in business are in stakeholder management and promoting sustainability for the port and related sectors. Philippe Demoulin is a laureate of the Prince Albert Fund, and a member of the Development Committee of the Antwerp International School. He is co-author of the book "The province of Antwerp, a world of logistics" (published by Garant, 2010).

After a Bachelor in spatial planning at the French Institute of Geoarchitecture and a Master degree in Urban Studies at University from Quebec in Montreal, **Greta Marini** joined in 2002 the International Association Cities and Ports as a Project Manager. In this position, she contributed to the development of the network and especially to the exchanges with port cities of Italy and Germany. She took part in several European projects and was responsible for the thematic implementation of international workshops and conferences. She assisted as a scientific contributor to the problems and challenges of the port city interface and participated as a speaker/chairman in several international conferences. In 2008, she coordinated the realization of the book entitled "PortCities 13.28 GMT" in which are developed various illustrative chapters on the environment in the ports, the waterfronts, the cruising, the maritime transport etc. Today, Greta Marini is leading the thematic group "Port Center Network", an initiative relating to the social integration of the ports, launched in 2009 within the AIVP.

## Introduction

Globalization, free trade, internationalization and integration of enterprises, growth in world trade, and exchanges of technological, human, production and information resources between neighboring or distant geographical areas have had an explosive effect on transport and logistics, sectors which are currently the key factors for the development and accomplishment of these closely interconnected processes.

In the context of a growing demand for maritime transport services, epoch-making transformations have taken place, such as cargo unitization (arrival of the container in the 1960ies) and the consequent development of the complex intermodal transport cycle specialization of vessels and handling systems, the increase in the tonnage of ships, the growing strategic importance of logistics – intended as the efficient and effective management of the goods and information flows for the entire production cycle.

These innovations have generated a number of consequences in the relationships between the port and the economic-territorial system it belongs to. All these changes – namely certain technical-organizational innovations , such as the gigantism of port terminals that subtracts more and more space from other economic and social activities, and their increasing automation which reduces the direct employment impact of port activities; as well as the increase in environmental awareness over the past two or three decades – have heightened the public and political perception of a serious incompatibility between port functions and urban communities.

The break between port and city originates at some point in time and grows over the years as ignorance of maritime and port activities increases among the population. The «technical and structural revolution» generally goes on outside the city, although it is sometimes very close at hand in the case of ports located in the heart of the urban space. It is accompanied by ever stricter safety and security measures applied by the port authorities, who must comply with ever more demanding environmental regulations. The added value is not clearly perceived by the city's inhabitants.

### *Environmental commitment and the birth of Community Outreach in American ports*

Since the first decade of this century, it has become essential – in the context of big structural works including port territories – to take environmental compensation, biodiversity preservation and nuisance reduction into account.

In 2006 the American ports of Long Beach and Los Angeles launched their Clean

Air Action Program to reduce air pollution. Not only has this programme enabled them to achieve a 90% reduction in air pollution from truck traffic in the port zone, it has actually allowed the ports to continue to operate. The pressure from interest groups and environmental associations had reached such a pitch that it threatened to hold up all port extension projects necessary to keep the Californian port complex competitive on a world scale.

This stage was accompanied by active communications with nearby communities: Community Outreach. This involved informing the community of the actions and investments planned by the port which would have a positive impact on their quality of life, and especially showing a proactive attitude and more responsible commitment. Today, the Community Outreach communication channel is fully integrated into American ports, which in many cases have an individual or a department responsible for this function.

## *The Concept of the Port Center*

Community Outreach is in any case a feature of corporate social responsibility which has little effect on the deep break in city-port relations or on the perception of incompatibility and incomprehension which exists between the city inhabitant and the city's port. The object of the Port Center is to remedy this break by opening up a process of rediscovery of port activity and developing a universally shared maritime and port culture.

The Port Center is a space devoted to understanding and discovery, a tool allowing the inhabitant to reassume ownership of his port. By presenting the diversity of port activities, their economic benefits for the territory and the potential in terms of jobs for young people, the role of the Port Center is to explain, to educate the port community and the city's inhabitants, and to give them a sense of shared interests.

By pursuing this goal of creating awareness and appreciation of port activity, the Port Center offers the public, whether informed or not, the possibility of a better understanding of contemporary port activity through an exhibition in a fixed home. The Port Center is necessarily more than just an exhibition room. It offers suitable site visits led by a trained, experienced guide. These visits offer a chance to meet companies which work on the port and get an inside view of port life. The Port Center works with the professionals and authorities involved to guarantee that group visits can take place in perfect safety. This combination of an exhibition in a fixed home and site visits allows the city inhabitant to reassume ownership of his port.

Some of the oldest Port Centers are the Havencentrum Lillo at Antwerp and EIC Rotterdam, both located in the heart of the port-industrial zone, dozens of kilometres away from the city centre. They specifically target schoolchildren with

the object of preparing future generations of port workers. Little considered by young people as sources of employment, shipping, port activities and logistics companies today are having difficulty in recruiting young people and in finding applicants with suitable profiles. Careers in the port and logistics sector today demand ever more specialised technical skills, which only distantly resemble the image held by young people and city inhabitants.

Rotterdam and Antwerp continue to address this essential question of employment. In the case study of Havencentrum Lillo, we will see that the Port Center continues to target young people first and foremost. Indirectly, it also reaches an audience of families who see the port as a possible future employer of their children.

As a result of the values and positive benefits of the images disseminated by a Port Center, many other port cities are now thinking of investing in such an instrument. In Europe, Genoa, Le Havre and Leghorn have already opened their doors. The Port of Ashdod created its structure in 2010, and Melbourne has been running school visits through its Educational Centre since 2006. Obviously, every port city is different and demands a specific definition of the types of visitor targeted. Nevertheless, the Port Center today can often be a useful tool for reaching the general public, not just schoolchildren.

In the study of the second example of a Port Center, Genoa, we will see that the Port Center is considerably more than a tool for raising awareness about port careers in young people. It allows a more sensitive and less serious approach to the port. Organising simple events like running competition through the port allows people to discover an area which is normally inaccessible in an entertaining way, giving them a different perspective. Shows related with the arts and culture, through new partnerships, stimulate creativity and trigger a change of image, for which the Port Center can be the starting point.

The Port Center also represents the port community in all its diversity: private companies and public services (customs, veterinary service, etc.). Without their active cooperation, the port/city/inhabitant network cannot be formed. Thus the community must adopt the tool in order to communicate with itself and its inhabitants. This coherence favours the building of essential bridges with the world of universities and education – it allows the port world to talk to the city's inhabitants.

**Figure 1:** Proof of a will to construct sustainable development,

### *Case study: Havencentrum Lillo*

The port of Antwerp<sup>1</sup> covers an area of about 120 km<sup>2</sup>, hosting a range of interlinked economic sectors, from the maritime over the logistics to the (mainly chemical) industry. Over 60,000 people are employed directly in the port of Antwerp, and another 85,000 indirectly. A recent survey by the Chamber of Commerce concluded that over a period of 2 years over 4,400 new recruits will be needed.

**Table 1 : Employment in the port of Antwerp, 2012<sup>2</sup>**

<b>Direct employment</b>	<b>60,873</b>
Maritime cluster, including:	
Cargo handling	27,609
Shipping agents and forwarders	14,161
Public sector	7,064
Port Authority	1,802
Port construction and dredging	1,697
...	1,245

<sup>1</sup>[www.portofantwerp.com](http://www.portofantwerp.com)

<sup>2</sup>[www.nbb.be/doc/ts/publications/wp/wp260En.pdf](http://www.nbb.be/doc/ts/publications/wp/wp260En.pdf)

Non-maritime cluster, including:	
Industry	33,264
Land transport	22,561
Other logistic services	4,380
trade	3,716
<b>Indirect employment</b>	<b>85,392</b>
<b>Total employment</b>	<b>146,265</b>

The Port Center (Havencentrum<sup>3</sup>) was the first centre of its kind when it was established in 1988 the province of Antwerp. It now has a wide range of services, an annual budget of about 1.1 million euros, 12 permanent staff members and a team of 75 port guides.

The core activity is the organization of guided tours, by ship or by bus, to the port area. In 2013 48,656 persons in about 1,200 groups participated in a visit which typically takes half or a full day. With the Antwerp Port Authority we have a clear arrangement that delegations of economic or political importance will be hosted by them, whereas we take charge of the visitors with a more general background. Two thirds of our visitors are students, ten percent of the visitors come from abroad.

Given our role we are seen as the "ambassadors of the port of Antwerp", and we are regularly called upon for our detailed field knowledge of the port area. Keeping this knowledge up to date requires constant attention, since every day changes occur at the level of the port companies or port infrastructure. We use our knowledge to support our team of guides and to develop other projects. For example, in 2010 we collaborated with the Institute of Maritime Management and Transport<sup>4</sup> (University of Antwerp), resulting in a book for the general public on international logistics and the role of the port.

## Governance

Until the end of 2013 the board of directors consisted solely of members of the province council. There was no structural link with the port community which proved to be a disadvantage. As from 2014 the board includes three representatives of the port community, respectively for the Antwerp Port Authority, the logistics sector and the industrial sector (these two last ones through their respective coordinator at the local chamber of commerce). This structural involvement of the port community will provide a strong support for the Havencentrum in all areas – potentially more financial means, addressing the constant challenge of securing the access to company premises, and most of all a closer collaboration in bringing the port closer to potential employees. Through the chamber of

<sup>3</sup> [www.havencentrum.be](http://www.havencentrum.be)

<sup>4</sup> [www.itmma.com](http://www.itmma.com)

commerce<sup>5</sup> we have also set up periodic meetings with two working groups of companies representing respectively the logistics and the maritime sector. At a strategic level, it is important to remember that the added value created in the port of Antwerp represents about 4.6% of the GDP of the Flemish region, and we therefore operate in an area with important economic interests. This involvement of the economic actors with the Havencentrum is crucial in maintaining the constructive relationship.

## A new mission for the Havencentrum

In 2013 we conducted a strategy review together with our main stakeholders, to update the mission and vision for the Havencentrum in the coming years.

<b>Strengths</b>	<b>Threats</b>
Unique proposition of access to port companies Unique offering of tailor-made visits to companies Knowledge about the port Neutrality – no vested interests Flexible pool of port guides Collaboration with a large number of partners	Location at 20 km from the city center, not reachable by public transport Depending on only one partner for its structural financing Depending on free lance port guides, with risks relating to their availability and service quality
<b>Opportunities</b>	<b>Weaknesses</b>
growing interest in sustainability Employment in the port sectors Technological innovation Transparency and communication	The economic and financial crisis Competing initiatives Aging

Our new mission is “to generate awareness and enthusiasm and reinforce the public image of the port (industry, maritime and logistics). Special interest is given to youngsters to generate their interest and show them relevant job opportunities”.

This is in line with the previous mission and has this added focus on young people as potential employees of the port. Up to 2013 our offering could be described as consisting of three types - excursions based on school programs, secondly those promoting the public image of the port, and finally those explicitly aiming at generating interest with the young visitors for a job in the port. As from 2014 we will give priority to this last aspect, i.e. bringing the port in the picture when youngsters choose the next step in their studies or start looking for a job. Job promotion will be the recurring theme in all types of excursions, and we see the school trips now more as a leverage to bring youngsters in large numbers to the port.

<sup>5</sup> [www.voka.be/antwerpen-waasland](http://www.voka.be/antwerpen-waasland)

## Some challenges

The challenge for our “edu-tainment” is therefore twofold. On the one hand we aim to convince teachers to bring their class by offering them a well-documented and well-structured excursion based on the compulsory school curriculum. We are for example currently developing an excursion about sustainability in the port which links clearly into the classes of economics and geography. On the other hand we need to bring our information in a way that is attractive to young people, and it is a challenge to do this with youngsters who are so tuned into short video clips, virtual games, and 140 character messages.



*Youngsters and the result of their creative thinking about a the layout of a port © Havencentrum Lillo*

The accessibility to the company premises also requires constant attention. The company visits organized by the Havencentrum are unique because up to 4 companies will be visited in one day, and visitors will gain a good overview of the cargo, the activities and the work in the port. This is our unique selling proposal but at the same time our Achilles heel. There are multiple reasons why access for visitors to the quays and warehouses has become far more difficult over the past ten years, and this trend will not reverse:

- the ISPS code and other security regulation
- the evolution from local to international ownership and management, making it difficult to communicate and obtain preferential access
- reasons of confidentiality and reputation management, e.g. in the fashion logistics

- risk of food contamination, e.g. in the mineral water distribution centre
- reasons of personal and labour safety, e.g. in the chemical industry

We work with the Antwerp port companies to remind them that they need to reconcile these concerns with the need for an open image. We are also working with the industry on a new type of program involving the visit of one company instead of the usual four, therefore allowing sufficient time for all the safety measures. Our credo was that there is no better way to discover a port than seeing it on the spot, but we will clearly need to supplement our excursions with other forms. New multimedia and communication technology might bring the solution, certainly since it is the youngsters who are our target group.

Two way communication is an interesting topic to consider in the coming years. We bring our information about the port to our visitors, and do so in a customized way. But this of course remains largely a form of one way communication. Every year we have face to face contact with nearly 50,000 people coming to the port – this actually is a unique opportunity to learn about their expectations, opinion and view relating to the port. This however requires a well-organized process flow to ensure that the information obtained is collected, formatted, and sent to the right party, be it the potential employers or the port authorities.

## Conclusion

The Havencentrum is in the midst of a change process, driven by its new mission and by external forces. The three challenges described above are interlinked, and the solutions will shape the new Havencentrum. The necessary expertise and inspiration is coming from other sectors such as the science centres sector<sup>6</sup> and certainly also from the exchange with our colleagues through the Port Center Network<sup>7</sup>. At the governance level, the larger involvement of the economic actors in the governance of the organization will also enable the change and guarantee the continuation of the Havencentrum.

## *Case study: The Genoa Port Center Experience*

The weakening of the relationship between the production system based on the port and the socio-economic system of the territory (city or region) hosting the port can generate the loss of the maritime character and “production culture” of an economic system, in which the vocation for international traffic, maritime trade and control of the transport activities connected with or related to it, is progressively disappearing. The direct consequence is that a cumulative process

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<sup>6</sup> [www.scws2014.org](http://www.scws2014.org)

<sup>7</sup> [www.portcenternetwork.org](http://www.portcenternetwork.org)

is generated in these ports and regions where the loss of “awareness” of or “vocation” for the sea leads to an impoverishment of the maritime-port industry, lower investments, lower interest and the loss of political priority for the maritime sector.

Inevitably, the resources/factors of the local system are redeployed towards other sectors that, rightly or wrongly, are considered as more strategic for regional development. Where, on the contrary, in other port regions – with a process that, in the presence of the same technological and organizational transformations of the port industry, transport and logistics, could be defined as *remaritimisation* – not only are traffic and investments concentrated, but the control of the transport cycles and industrial logistics increases.

In this general framework, ever since 2000 Genoa is developing innovative actions to support port city identity. A new structure, called “Port Center”, opened in October 2009 to promote awareness about employment and the economic role of ports and the shipping industry. The docks, warehouses, ships, shipyards, ship owners' offices, shipping agencies, become spaces to help discover the port, to understand the various historical, contemporary and future economics of the port and how they fit into the more general strategies of the country and the European Union.

The Genoa Port Center is first and foremost a service oriented to a large audience, to introduce and lead people to visit the port (permanent teaching and exhibition facilities, visits (land and sea) to the port, installations and information in public areas facing the port, publications, website, networking with other European Port Centers). Inside the permanent exhibition real-time links with the port informative channels have been implemented and allows the visitors to have a live experience of the port's activities.

The Port Center also serves as an educational service addressed to students, teachers and parents (projects, guided tours, didactic technologies, data and in depth studies, labs and educational material). And finally, it could become a service for businesses/firms/companies (stands, meetings, visits, company profile, merchandise). Based on these three main objectives, it represents a pioneer experience in the area of maritime port cluster policies in Italy.

Genoa is a city that stretches for 18 km along the Ligurian coast. Of these 18 km two thirds are occupied by port facilities, which constitute the primary source of identity, wealth and employment. In Genoa, the city and the port are two pages of the same book open one in front of the other, but while the city remains a public area the port is a place of work and an international border that remains accessible only to the personnel. From the Old Port and from the tourist boats, from ferries, terraces and hills that surround Genoa, residents and tourists can enjoy the charm of the port's ships and peers but they cannot experience it directly. Genoa Port Center has

opened the port to the city and offers to the public the possibility of discovering the reasons of its appeal, known until now only by those who work there.

The promoters of the project «Genoa Port Center» are: the Genoa Port Authority (*Dominus*), the Province of Genoa (*Financing, fund raising, community*), the University of Genoa/Department of Economics (*Scientific partner: R&D, benchmarking, networking*), the Military Maritime Authority (*Co-dominus*), the Porto Antico S.p.A. (*Commercial developer: marketing, incoming*). But, in order to implement the project, the whole port community has been involved and each exhibit may be associated to a different player of Genoa port community.

The following ideas concerning the port, together with the concept of *maritimization*, have supported the project and have been shared among the promoters and the partners:

- the port portrayed live, while it operates, and with the people that operate it;
- the port as a non conventional, non postcard-like, non stereotyped, non commonplace spot;
- the port as a productive organization, a social universe, a labour market, technological innovation, and eco system;
- the port as a place to learn new economical, technical and social settings.
- the port as professional horizon.
- the port as it is today and will be tomorrow, the port that communicates with the society and confronts with the public opinion.

## The future challenges

In order to communicate the port at the local level, it is necessary to focus on its economic benefits and the local added value, the latter now being considered as a true indicator of the long lasting success of a port.

The concept of the maritime port cluster – as a geographically concentrated population of businesses, associations, public and private organizations which are intrinsically connected around a primary/specialist economic activity – help to assess these effects, going beyond the individual “measurement” of outputs such as port throughput or the industrial activities located in the area.

It is therefore very important for the Genoa Port Center to communicate the effects of the port in terms of terminal and port industry, but also as the effect on employment generated by the many activities that can still benefit from being located in a port, considering that the spatial relationship between the port and its surroundings is essential, as is the capacity of planning the territory not just according to the performance of modal interchange activities in the strictest sense of the term, but increasingly taking into account the logistics activities that can be functionally connected to the transit of goods through the port hub.

The new localization strategies and the potential conflicts arising from the use of

the territory have generated new threats and new opportunities for port areas. Naturally, this takes place, now and in the future, in the context of localization strategies that no longer allow privileged positions (limited to very few activities at the most, the employment potential of which, by the way, is rapidly decreasing) and which, instead, enter the more generalized competition between territorial economic systems for the attraction of economic activities.

The crucial point today and the future challenge of the Genoa Port Center communication activity is that the maritime centre must maintain control of the management functions of the production activities that it is responsible for, and continue to be a centre of production, offering a higher level of services. On the contrary, the possible drain of companies from the port city generates a drop in added value and employment.

### **The Italian context**

The Genoa Port Plan ongoing is envisaging the development of a port macro-region, involving many Italian regions. In such a context the port of Genoa aims to maintain its leadership in knowledge-intensive activities (organization of the logistics cycle, forwarding, brokerage, trade, telecommunications, marketing, promotion, research, governance) that highlight a culture of transport and logistics and the consequent research and development activities, learning capacities and/or the introduction of innovative processes, rather than the mere performance of operative procedures which are now highly standardized, even though highly specialized and capital intensive.

This gives the idea of a port whose function is to orchestrate a series of transport activities that it does not necessarily physically host. These considerations offer indications for policies that prevalently affect the sectors of territorial planning and land use.

The attention shifts towards the competition between ports, their capacity to attract businesses and settlements and the "accessory conditions" of company localization choices. At the same time, the issue of the environmental costs of economic development is also closely connected to the localization choices, because they determine both the concentration or the dispersion of the positive economic effects of the production system, and of the negative environmental effects, at least some of them.

Generally speaking, therefore, the localization behavior of economic subjects is now the main issue in the vast framework of political and economic objectives involved in defining the economic development of ports. As a result, what a port city is able to produce best in relation to its resources and strong points becomes an important factor. Not just a legacy of infrastructure and services, but a spatial concentration of characteristic, as horizontal and vertical relations between enterprises, widespread skills, design capacity, elevated level of internal

competition though heterogeneous as regards sector, size and international outlook.

The new economic outlook of ports highlights new challenges for port cities, strongly focused on the regional identity of ports understood specifically as the relationship between the port industry and the economic system it refers to, between port and territory.

In such a context the attention is focused on employment and how to convince young and skilled people to work in and with the port. In this perspective one of the main objective of the Genoa Port Center is to highlight that the port economy is a knowledge economy and when people ask the question “will there be jobs in the port?”, that is not the same as the question of “will there be jobs on the docks?”. Here the role of the Genoa Port Center in supporting the port image and the port related jobs understanding and promotion in the Italian context, because: *“how we communicate the port today, will have an effect on the port of tomorrow”*.

## **Capsule professionnelle 11**

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# **La gouvernance Port-Ville face aux enjeux d'une société bas-carbone : illustration avec le cas de Marseille-Fos**

*Nicolas Mat*

*Chercheur doctorant*

Laboratoire de Génie en Environnement Industriel  
Ecole des mines d'Alès (LGEI-EMA)  
Alès - France

*Juliette Cerceau*

*Docteur en sciences et génie de l'environnement*

Laboratoire de Génie en Environnement Industriel  
Ecole des mines d'Alès (LGEI-EMA)  
Alès - France

*Guillaume Junqua*

*Enseignant-Chercheur*

Laboratoire de Génie en Environnement Industriel  
Ecole des mines d'Alès (LGEI-EMA)  
Alès - France

*Frédéric Dagnet*

*Directeur de la Mission Prospective Evaluation*

Grand Port Maritime de Marseille  
Marseille - France

*Hervé Moine*

*Responsable Planification Territoriale*

Grand Port Maritime de Marseille  
Marseille - France

## Biographies

*Energéticien de formation, **Nicolas Mat** travaille depuis 8 ans dans le secteur du conseil et de l'accompagnement de projets de développement durable en France et à l'international, pour le compte de collectivités, d'industriels ou d'institutions, sur les thématiques d'écologie industrielle et territoriale, de Bilans Carbone et de Plans Climats Energie Territoriaux. Depuis l'obtention en 2006 d'un Master de Management Environnemental et Développement Durable réalisé à l'Université Technologique de Troyes et à l'Université de Sherbrooke (Canada) sous la direction de Dominique Bourg, il a contribué au lancement et à la mise en œuvre de près d'une quinzaine de démarches d'écologie industrielle et territoriale sur des projets français et européens (projets opérationnels et projets de recherche-action). Pour le compte de l'ADEME, il a notamment coordonné de 2010 à 2012 deux projets d'écologie industrielle dédiés aux territoires portuaires DEPART et REX (retour d'expériences internationales de démarches d'écologie industrielle menées dans des territoires portuaires). Il est par ailleurs depuis 2012 chercheur doctorant au sein du Laboratoire de génie en environnement industriel de l'Ecole des Mines d'Alès. Son sujet de recherche porte sur le rôle des territoires portuaires dans le contexte de la transition écologique. Il intervient régulièrement sur ce sujet dans le cadre d'enseignements et de cycles de cours en Université et Ecole d'Ingénieurs.*

*Philosophe et sociologue de formation, **Juliette Cerceau** intervient depuis 2008 au sein de consortium de projets de recherche nationaux en écologie industrielle (ADEME DEPART, ANR CONFLUENT, ANR COMETHE, AMI ADEME DEPART, AMI ADEME REX), en contribuant notamment au développement de méthodes d'analyse des jeux d'acteurs et d'analyse multicritères.*

*En 2013, elle soutient une thèse en sciences et génie de l'environnement intitulée : « l'écologie industrielle comme processus de construction territoriale : application aux espaces portuaires ». Cette recherche s'inscrit dans une prise de recul philosophique et sociologique sur l'écologie industrielle. Dans une approche interdisciplinaire et intégrative, elle interpelle notamment la notion de territoire, et développe une méthodologie d'analyse des relations socio-écologiques à l'œuvre dans le processus de construction stratégique et opérationnelle du territoire en écologie industrielle. Elle applique ces méthodologies au contexte spécifique des territoires portuaires, en étudiant plus particulièrement le contexte de l'espace Marseille-Fos.*

**Guillaume Junqua**, 37 ans, est actuellement Maitre-assistant en écologie industrielle au Centre LGEI de l'Ecole des Mines Alès. Il travaille depuis 2003 sur les thématiques d'écologie industrielle et de gestion durable des ressources, au sein de différentes institutions en France et à l'étranger: Université de Technologie de Troyes, Ecole des Mines de Douai, et Université de Sherbrooke (Canada) et Ecole des Mines d'Alès. L'originalité de sa recherche est de proposer une approche territoriale de l'écologie industrielle, permettant de réaliser un diagnostic puis de construire et d'évaluer différents scénarios de transition écologique d'un territoire, notamment par l'Analyse de Cycle de Vie (ACV). Cette recherche est effectuée principalement dans le cadre d'une recherche partenariale avec des entreprises, des collectivités et des aménageurs de zones d'activités. Elle utilise comme modèle les territoires portuaires. De ce fait il a participé à plus de 20 projets de R&D locaux, nationaux ou internationaux avec ces différents acteurs.

Economiste de formation, **Frédéric Dagnet** travaille depuis 18 ans dans l'activité portuaire et maritime. Après avoir occupé plusieurs fonctions dans le secteur des études et du marketing, il s'est spécialisé dans la stratégie, les finances et la question de l'intégration territoriale du port. C'est la conjugaison de ces centres d'intérêt variés qui l'a conduit à mettre en avant l'écologie industrielle, et plus globalement l'économie circulaire, comme nouveau modèle d'intégration économique territoriale source d'opportunités pour le port. Ce nouveau modèle s'appuie également sur les missions renforcées par la réforme portuaire de 2008 qui donnent au port des objectifs d'aménagement local, de développement industriel et de connexion multimodale. Il travaille actuellement à l'intégration de ces objectifs dans le projet stratégique du port en cours d'élaboration.

**Hervé Moine** travaille depuis 14 ans au sein du Grand Port Maritime de Marseille, en tant que responsable de la planification territoriale. Au-delà de participer au développement de nouveaux projets portuaires, industriels et logistiques sur le territoire de Marseille-Fos, son rôle l'amène plus particulièrement à définir et mettre en œuvre la politique d'aménagement de la zone industrialo-portuaire (infrastructures, superstructures, équipements) en lien avec la gestion des flux d'énergie, de matières premières, de déchets, etc. Docteur en sciences de l'aménagement, il travaille depuis 2003 sur des questions liées à l'écologie industrielle, appréhendée en tant qu'outil d'intelligence économique et territoriale. Il contribue actuellement à l'intégration de cette thématique (écologie industrielle et économie circulaire) au sein du projet stratégique du port, en cours d'élaboration.

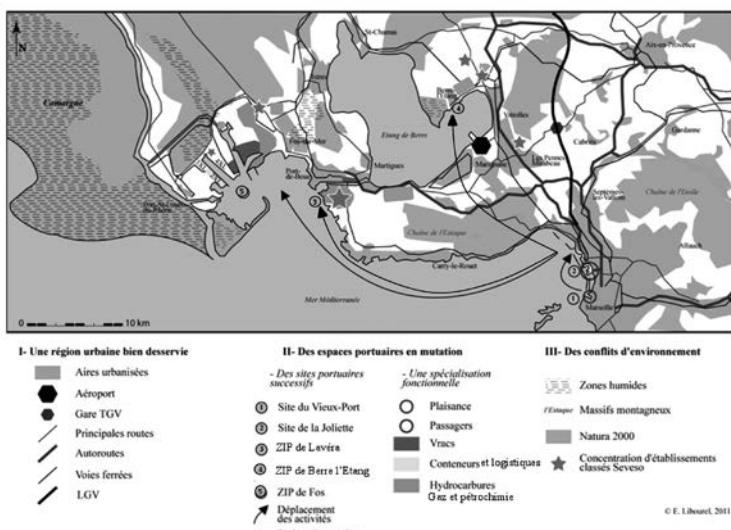
## *Le Port de Marseille-Fos : un port confronté aux enjeux de la transition énergétique*

### **L'héritage d'une déconnexion port-ville et d'une spécialisation autour des énergies fossiles**

Le Port de Marseille reflète l'évolution des espaces portuaires, historiquement ancrés au sein des villes, qui ont progressivement investi de nouveaux espaces pour s'adapter aux besoins et contraintes de nouvelles activités industrielles et maritimes, très consommatrices de foncier et nécessitant un accès direct à la mer. De son site historique fondé en 600 avant J-C dans le Vieux Port de Marseille, l'espace portuaire a été étendu vers le nord, dans la seconde moitié du XIXème siècle, pour désengorger le port historique et permettre aux navires à vapeur d'accoster. Puis, avec l'avènement du pétrole, le port s'est déconnecté de la ville pour développer des complexes industrialo-portuaires vers l'ouest, autour de l'Etang de Berre et à Lavéra à partir de 1920, puis à Fos-sur-Mer dans les années 1960. Cette « conquête de l'Ouest » (Ricard, 1989) est révélatrice d'une tendance progressive de déconnexion avec l'espace urbain jadis mitoyen voire imbriqué avec l'espace portuaire (Hoyle, 1989).

Aujourd'hui, l'espace portuaire de Marseille-Fos se structure donc autour de deux principaux sites, équivalent en nombre d'escales mais très différents en termes d'activités, le long du littoral des Bouches-du-Rhône : les bassins Est, au cœur de Marseille, et les bassins Ouest, situés à près de 60 km du Nord Ouest de Marseille, à Fos-sur-Mer.

**Figure 1 : Espace portuaire de Marseille-Fos**



Source : d'après Capellari et Libourel, 2011

La complémentarité de Fos et Marseille est stratégique, tant pour l'autorité portuaire du Grand Port Maritime que pour les neuf intercommunalités d'ancrage qui sont associées à cet espace portuaire. Fos est identifiée aujourd'hui comme « port à l'échelle mondiale » là où Marseille réaffirme son rôle de « port de la Méditerranée ». En effet, les bassins Est situés à Marseille restent le port dédié aux trafics essentiellement intra-méditerranéens de conteneurs, de fruits et légumes, de vrac agro-alimentaire mais également de passagers. Les bassins Ouest de Lavéra et Fos constituent, quant à eux, une zone industrialo-portuaire d'envergure mondiale, dédiée aux activités lourdes et pétro-chimiques (sidérurgie, raffinage et stockage du pétrole, terminal gazier, chimie, cimenterie, etc.) et logistiques (trafics de conteneurs).

Ce modèle industrialo-portuaire a permis de positionner Marseille-Fos comme nœud stratégique de la gestion des flux énergétiques au Sud de l'Europe : 1er port français, 1er port méditerranéen et 3ème port pétrolier mondial, avec près de 60% de son trafic en tonnage consacré aux hydrocarbures. Ce complexe industrialo-portuaire génère depuis des décennies de l'emploi local et une valeur ajoutée économique forte. Merk et Comtois (2012) estiment à environ 32 400 le nombre d'emplois générés par les activités de transport, de logistique, de construction et réparation navale, d'industries portuaires ou encore de plaisance, présentes sur le port de Marseille-Fos. La valeur ajoutée du cluster de Marseille-Fos est significative pour la région : elle s'élève à près de 4 milliards d'euros, soit environ 3% du PIB régional.

Il n'en demeure pas moins que ce complexe industrialo-portuaire est aussi perçu comme une source non négligeable de nuisances. La qualité de l'eau, des sédiments et de l'air est impactée par l'historique industrialo-portuaire de cet espace géographique. La quantification des émissions de CO<sub>2</sub> est de 8,2 teq CO<sub>2</sub> par habitant sur Marseille Provence Métropole et 109 teq CO<sub>2</sub> par habitant pour le secteur incluant la zone industrialo-portuaire de Fos-sur-Mer (Merk et Comtois, 2012). En valeur absolue, les émissions de CO<sub>2</sub> relatives à la seule zone industrialo-portuaire de Fos sont équivalentes voire supérieures à celles de Marseille Provence Métropole (MPM, 2011).

### **Les défis de l'interface port-ville et de la transition énergétique post-carbone**

Dans un contexte où les besoins d'expansion de la ville et du port étaient concordants, la spécialisation spatiale des bassins Est et Ouest apparaissait comme une réponse intéressante aux besoins de foncier pour l'accueil et le développement d'industries lourdes, symboles d'une économie basée sur le « tout pétrole » consommatrice de ressources et d'énergie à bas coût. Cette redistribution spatiale des activités industrielles en dehors de la ville a également constitué une réponse à court et moyen terme pour la problématique de gestion des nuisances issues du domaine portuaire (bruit, pollutions atmosphériques, trafics routiers, etc.).

Cependant, cette déconnexion spatiale a aussi contribué à éloigner, à tous les niveaux, la ville et le port. L'absence de gouvernance territoriale concertée durant des décennies peut être considérée comme l'héritage combiné de la volonté du port de se désenclaver de l'emprise urbaine pour mieux développer et maîtriser ses activités et du désinvestissement de la ville pour sa vocation portuaire historique. L'espace portuaire s'est ainsi cloisonné entre plusieurs identités culturelles marquées, tantôt tournées vers la cité à Marseille, vers la pêche à Port Saint Louis et vers l'industrie à Port de Bouc, Martigues et Fos. La juxtaposition de ces identités ne va pas sans soulever des tensions sociales qui s'expriment notamment à l'occasion de nouveaux projets d'extension de la zone industrialo-portuaire où s'opposent les intérêts nationaux et les intérêts locaux (Cerceau, 2013).

En outre, la spécialisation d'activités sur Marseille-Fos autour de la gestion des flux énergétiques, principalement d'origine fossile (hydrocarbures, charbon, etc.), est devenue une faiblesse dans un contexte de crises conjoncturelles ou structurelles, liées aux évolutions industrielles et énergétiques. Les fermetures et restructurations des grandes industries, notamment pétrochimiques, l'évolution des stratégies énergétiques à l'échelle mondiale induisant une adaptation et une réduction des capacités de raffinage en Europe, etc. sont autant d'indicateurs d'une transition en marche vers une société post-carbone (fossile).

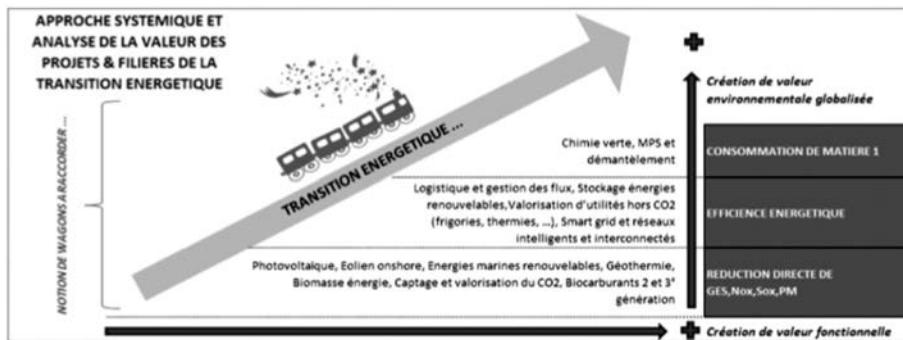
## *Stratégies d'adaptation et processus de transition*

Conscient de sa vulnérabilité dans ce contexte de transition, le complexe industrio-portuaire de Marseille-Fos s'est donc engagé depuis plusieurs années dans une réflexion stratégique de fond, articulant transition énergétique et renouvellement de l'interface port-ville, via :

- une évolution de son modèle d'activités vers un écosystème industriel plus intégré et basé sur une densification des échanges de flux entre acteurs ;
- le développement de nouvelles activités et de nouvelles filières dans le sens d'une diversification dans le domaine des énergies pour « passer du port mono-énergie à celui de toutes les énergies » (Terrier, 2013) ;
- la re-densification de ses liens avec le territoire, notamment les collectivités, pour renouveler la cohérence de son action et son ancrage territorial.

La transition énergétique est ainsi appréhendée par le port non plus comme une contrainte mais bien comme une source d'opportunités pour la mutation de la zone industrio-portuaire (ZIP) et plus globalement du territoire. Le double objectif est donc de renforcer l'attractivité du port et du territoire et de trouver des relais de croissance et de nouvelles sources de recettes.

**Figure 2 : La transition énergétique vue par le Grand Port Maritime de Marseille-Fos**



Source : Moine dans Collectif, 2013

Cette stratégie repose sur trois principaux piliers: 1/ l'efficacité énergétique (optimisation des procédés industriels et logistiques), 2/ la production d'énergies renouvelables (mobilisation des ressources éolienne, solaire, géothermique, de biomasse, etc), 3/ l'écologie industrielle (développement de synergies inter-industrielles, valorisation de sous-produits, etc.).

### L'écologie industrielle, un levier pour renouveler la gouvernance territoriale des espaces portuaires

L'écologie industrielle et territoriale a pour objectif d'accompagner la transition des territoires d'un mode de gestion linéaire des flux, caractérisé par une utilisation exponentielle des ressources et une émission considérable de polluants et de déchets, à une gestion circulaire des flux rendue possible par la densification des interactions entre acteurs locaux. Par la mise en œuvre de synergies ou symbioses industrielles, les déchets des uns deviennent des ressources pour les autres (Erkman, 2004). Au-delà des aspects techniques liés à la mise en œuvre de ces échanges de flux de matières et d'énergie (infrastructures d'échanges, pérennité et stabilité des approvisionnements, qualité et quantité des flux, etc.), les enjeux humains et organisationnels (mode de coordination et d'organisation, facteurs de mobilisation et d'implication, conditions de pérennisation des démarches, etc.) sont au cœur des processus de mise en œuvre de ces démarches d'intelligence territoriale. L'écologie industrielle et territoriale est ainsi comprise comme une action collective territoriale, un processus de coordination d'acteurs en vue d'atteindre un objectif de meilleure gestion des ressources locales (Brullot et al., 2014).

La mise en œuvre de l'écologie industrielle nécessite de nouveaux schémas d'organisation industrielle, de gouvernance et de partenariat entre les acteurs économiques situés au sein d'un territoire. En révélant des possibilités d'échanges de flux de matières et d'énergie, elle permet de renforcer et d'impulser de nou-

velles dynamiques de coopération et de coordination entre acteurs territoriaux. Les questions de gouvernance, d'implication et de coordination des acteurs en constituent donc un point central : comment adopter des positions communes d'aménagement du territoire ? Comment réapprendre à interagir et converger vers un objectif commun, tout en considérant ses intérêts propres ? Comment valoriser et faire évoluer ses propres fonctions au sein d'un système territorial complexe et mouvant ? Comment gérer des tensions locales fortes autour des impacts environnementaux du Port, des enjeux d'emploi, etc. ?

Les territoires portuaires, espaces stratégiques et porteurs d'enjeux forts (portes nationales d'échanges et de concentration de flux de matières et d'énergie, conflits d'usages des sols, problématique de pollutions, etc.), intègrent de plus en plus cette approche innovante de gestion de leurs ressources et de leurs déchets, y voyant un vecteur d'opportunités et un facteur de différenciation non négligeable, dans un contexte mondial très compétitif (Mat et Cerceau, 2012). A l'échelle internationale, de nombreux espaces industrialo-portuaires se sont saisis de ce concept et développent des symbioses sur une grande diversité de flux, et selon de modes opératoires très différents en fonction des acteurs qu'ils associent et du contexte dans lequel ils s'inscrivent (Mat et Cerceau, 2012 ; Cerceau et al, 2014). En France, depuis le milieu des années 2000, on constate une réelle dynamique d'écologie industrielle au sein des grandes places portuaires (Collectif, 2013) : politique globale déclinée à l'échelle de l'Estuaire de la Seine ; groupement d'intérêt économique associant un ensemble industriel autour d'une plateforme de mutualisation de services sur la zone industrialo-portuaire de Salaise/Sablons ; création d'une culture commune d'écologie industrielle à travers des actions de réutilisation des eaux sur le Port de Nantes-Saint-Nazaire ; projet de structuration globale des échanges entre industriels dans une logique de réseaux portuaires sur le Port de Bordeaux, etc.

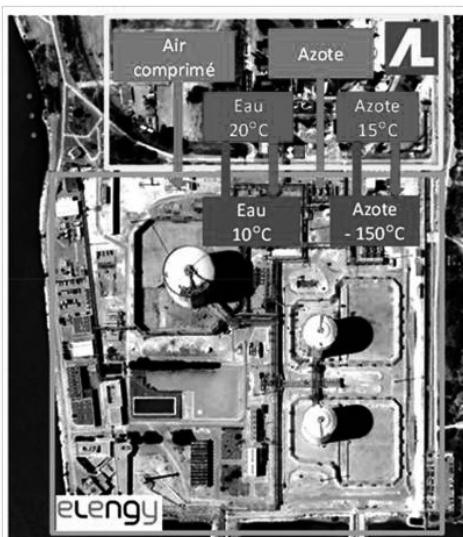
Ces démarches contribuent à renouveler les collaborations entre parties prenantes au sein des territoires portuaires, en s'appuyant sur des formes de gouvernance variées: associations d'industriels dont ECOPAL (Economie et Ecologie partenaires dans l'action locale) sur le Dunkerquois ou le Groupement des Usagers du Port (GUP) sur le territoire de Strasbourg; association collégiale rassemblant collectivités locales, décideurs économiques et industriels telle que l'association « Ecologie Industrielle Estuaire » ; collaborations ville-port telles que mises en œuvre à Bordeaux ou à Fos-sur-Mer, etc.

### **Des symbioses industrielles qui contribuent à la résilience du système industrialo-portuaire**

L'espace portuaire Marseille-Fos fait pleinement partie de cette dynamique nationale d'écologie industrielle. De nombreuses synergies, notamment énergétiques, existent sur les sites de Fos-sur-Mer, Lavéra et Berre l'Etang. Ces initiatives spontanées portées par les industriels locaux, dans le cadre de leur implantation ou de

leur démarche d'amélioration continue, contribuent à un maillage local des flux, permettant *in fine* une optimisation des consommations d'énergie, une moindre dépendance à certains flux d'approvisionnement extérieurs, une revalorisation plus systématique « des rejets des uns pouvant ainsi devenir des ressources pour les autres ». Une symbiose industrielle existe par exemple depuis 1972 sur le territoire de Fos-sur-Mer, entre le terminal méthanier de Fos Tonkin géré par une filiale de GDF-Suez et le site d'Air Liquide situé à proximité. Cette synergie consiste en un échange de flux de calories, en l'occurrence de frigories issues du processus de regazéification du Gaz Naturel Liquéfié.

**Figure 3 : Synergies (valorisation de frigories) sur le terminal méthanier de Fos Tonkin entre les entreprises Elengy et Air Liquide.**



Source : Bavuz et Carrese, 2013

Depuis le milieu des années 2000, le territoire portuaire de Marseille-Fos a engagé une réflexion sur ces enjeux d'évolution et d'adaptation en mobilisant explicitement le concept et les outils de l'écologie industrielle pour l'appliquer à son échelle territoriale. Dès 2004, les travaux initiés par le Grand Port Maritime, en particulier en partenariat avec le laboratoire de recherche LGEI de l'Ecole des mines d'Alès, ont permis de caractériser les principaux flux de matières et d'énergie transitant sur l'espace industrialo-portuaire, de dresser un bilan des technologies clés en présence (*mapping technologique*) et de modéliser les interactions existantes et les pistes potentielles d'échanges de flux entre différents acteurs industriels implantés sur la ZIP.

Aujourd'hui, plusieurs initiatives et réflexions co-existent sur le territoire. Outre les échanges de flux développés à l'intérieur des sites industriels, certaines initiatives sont portées par l'autorité portuaire (le Grand Port Maritime de Marseille-Fos)

ou par des associations d'industriels (Environnement & Industrie, UIC PACA) en partenariat avec des chambres consulaires (CCI de Marseille). D'autres sont animées par des collectivités locales (SAN Ouest Provence), ou encore par des consortiums de recherche nationaux. Ces projets portent désormais à la fois sur des échanges d'utilités thermiques (flux de chaleur ou de froid), d'eaux industrielles (pouvant être utilisées en cascade), des mutualisations d'équipement (traitement d'effluents, de COV, de boues de décarbonation, etc.) mais également sur des filières de revalorisation et de recyclage (CO<sub>2</sub> avec le projet VASCO, laitiers et gaz de haut-fourneaux, etc.) voire de nouvelles filières (éoliens onshore et offshore, déconstruction navale, etc.).

**Figure 4 :** Pilote expérimental de valorisation du CO<sub>2</sub>



Source : Moine, 2013

Ainsi, la mise en place de symbioses industrielles intéresse aussi bien les parties prenantes portuaires (autorités portuaires, industries portuaires, etc.) que celles limitrophes de la ZIP (communautés urbaines, etc.), qui peuvent représenter des lieux de consommation de flux considérables (par exemple, les flux de chaleur pour le chauffage urbain ou de froid pour le refroidissement de locaux ou d'entrepôts, etc.). Cela nécessite de nouveaux partenariats entre les acteurs industriels, l'autorité portuaire et les collectivités.

### **Un processus de transition qui implique de nouvelles relations Ville-Port**

La reconquête d'une gouvernance territoriale et concertée, à l'interface entre la ville et le port, est palpable au niveau des Bassins Est. Depuis 1995 et la création

par l'Etat de l'Etablissement public EuroMéditerranée, les rapports entre la Ville de Marseille et le Port ont sensiblement évolué. Ils ont notamment bénéficié du rayonnement urbain et culturel dans le cadre de Marseille Provence 2013 (Capitale Européenne de la culture), à travers des symboles de la réintégration du port dans la ville comme le Silo d'Arenc, le Mucem, la Villa Méditerranée, etc. La signature récente de la Charte Ville-Port entre les autorités urbaines et portuaires vient conforter ce souhait de développer des synergies entre la Ville et le Port. Elle formalise la volonté de remettre en valeur la mixité Ville-Port, désormais considérée comme un facteur d'attractivité, et concrétisée à travers des projets emblématiques comme les Terrasses du Port ou le Hangar J1.

A l'instar de cette dynamique de rapprochement entre parties prenantes locales au niveau de Marseille, cette volonté d'une meilleure articulation des fonctions et d'une plus grande « porosité spatiale » (Ricciotti, 2013) est également recherchée aujourd'hui au niveau des Bassins Ouest, bien que la dominante soit plus industrielle que culturelle. Dans le cadre du projet métropolitain Aix-Marseille, autorité portuaire, collectivités locales, CCI et associations d'industriels travaillent à la structuration d'une démarche commune d'écologie industrielle et territoriale en vue d'harmoniser les différentes initiatives en cours et de construire une ambition territoriale partagée en termes de gestion des ressources énergétiques. L'objectif est d'atteindre une plus grande autonomie énergétique du territoire en optimisant, selon une approche systémique, la collecte, le stockage, l'échange et la valorisation de l'ensemble des flux énergétiques présents sur ce vaste territoire, d'une surface de plus de 3 000 km<sup>2</sup>.

### **Perspectives et pistes pour une ambition territoriale partagée**

La mise en œuvre de la Réforme portuaire à partir de 2008 a renouvelé les structures de gouvernance au sein des ports français (Cariou *et al*, 2013). Elle a également eu comme effet de recentrer les missions du Grand Port Maritime sur ses fonctions régaliennes (sécurité, sûreté et police portuaire) et de consacrer son rôle d'aménageur public du domaine portuaire (Cerceau, 2013), dans une optique d'intérêt général au bénéfice du territoire (intégration territoriale accrue) et dans un souci de décloisonnement (Moine et Giraud, 2013). En se dotant d'une vision à court, moyen et long terme, le port souhaite s'afficher comme un véritable facilitateur pour le développement local de filières d'activités générant de la valeur et des emplois.

La difficulté actuelle pour l'autorité portuaire de Marseille-Fos est de pleinement s'impliquer dans le développement de nouvelles filières d'activités, qui, si elles ne sont considérées qu'à travers leur seule pertinence économique pour le Port, seront certainement moins « lucratives » que la gestion des flux énergétiques (vracs solides et liquides) pour laquelle les droits perçus par le port sont encore importants. Par ailleurs, proactif sur le sujet des services énergétiques, le port

réfléchit également au rôle qu'il pourrait jouer à terme, en tant qu'acteur ou opérateur interface, au sein d'un écosystème industrialo-portuaire mature, fondé et opérant selon les principes d'écologie industrielle.

Le contexte de métropolisation (Aix-Marseille Provence Métropole) offre l'opportunité pour le port de prochainement disposer d'un partenaire institutionnel à l'échelle de son territoire (Delsalle, 2013) pour dessiner de nouvelles étapes dans cette transition énergétique territoriale. Un peu plus de la moitié de la consommation d'énergie dans la région PACA est imputable au territoire de cette future métropole (de par le poids de l'industrie dans la consommation énergétique locale), qui n'abrite pourtant qu'un peu plus du tiers de la population régionale (Madar, 2014). Ce contexte de métropolisation constitue un levier pour reconstruire l'échelle cohérente d'action et de réflexion stratégique pour la concrétisation de nouvelles synergies intersectorielles et le développement économique du territoire, étant donné le faible niveau de production énergétique (moins de 1 Mtep/an) localisé sur ce territoire au regard des besoins (plus de 11 Mtep/an).

Les mutations industrielles en cours sur le domaine industrialo-portuaire de Marseille-Fos sont représentatives d'une société en évolution, qui doit aujourd'hui s'adapter aux enjeux du post-carbone. Les territoires portuaires, et celui de Marseille-Fos en particulier en France, ont la particularité d'accompagner les évolutions énergétiques mais également parfois de pré-déterminer ce que seront les modèles productif et consumériste de nos sociétés demain. Si la baisse à terme des trafics pétroliers semble inéluctable, les scénarios d'évolution énergétique projettent en Europe un remplacement progressif du brut pétrolier par le Gaz Naturel Liquéfié (GNL). Si ces projections se confirment, le GNL, parfois qualifié de solution énergétique transitoire, pourrait conforter la place stratégique des terminaux industrialo-portuaires à l'échelle des différents bassins de consommation dans le Monde, tant dans les pays développés, que dans les pays en voie de développement. Le port de Marseille-Fos pourrait ainsi se positionner comme un hub du GNL, l'Europe voulant quadrupler ses capacités de traitement d'ici 2025, les portant à près de 200 Gm<sup>3</sup>/an (Bavuz, 2013).

Pour autant, les pouvoirs publics souhaitent que ce flux énergétique s'inscrive dans un bouquet énergétique diversifié, intégrant une part croissante de sources d'énergies renouvelables. Cet idéal se cherche encore bien souvent une réalité opérationnelle, pour des raisons tant technique (notamment lié à l'intermittence des énergies renouvelables) qu'économique sur les territoires. A Marseille, les décideurs locaux du Port et de la Ville ont saisi cet enjeu et s'en emparent désormais, comme une condition de « survie » et d'indépendance énergétique à terme de leur territoire.

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## **Capsule professionnelle 12**

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# **When a shipping company creates transparency, empowerment and engagement through social media: the case of Maersk Line**

*Annette Agerdal-Hjermind*

*Assistant Professor in Corporate Communication and  
Corporate Social Media Usage*

Aarhus University, School of Business and Social Sciences  
Aarhus - Denmark

## **Biography**

**Annette Agerdal-Hjermind**, Ph.D., is Assistant Professor in Corporate Communication and Corporate Social Media Usage at Aarhus University, School of Business and Social Sciences, in Denmark, where she teaches courses in market communications and branding, corporate media and social media use in organizations and corporations from both an external and internal communication perspective. Her research has been mainly on organizational blogging and social media in a corporate communication perspective with a point of departure primarily in business cases. She has published several scientific articles in refereed international scholarly journals, and has won the highly commended theoretical paper award for a conference paper on organizational blogging at the Conference for Corporate Communication in Baruch College, N.Y in 2012 and the best paper award as co-author on a paper on the development of a theoretical framework for co-creating changes with social media at the International Public Relations Research's Conference in Miami in 2013. Annette is also a reviewer several international peer-reviewed journals.

## *Abstract*

The purpose of this article is to show and discuss how corporate social media usage is driven by people, not technology, and how the creation of a culture of user involvement and participation on the part of a company, in this case the world's largest container shipping company with 25,000 employees worldwide, Maersk Line ([www.maerskline.com](http://www.maerskline.com)), requires a systematic, user-driven listen-and-learn strategy with a clear selection of purpose and social platform according to audience and topics. This effort needs to be continuously dedicated and aligned, focusing on which relationships the company wants to form.

## *The promises of social media*

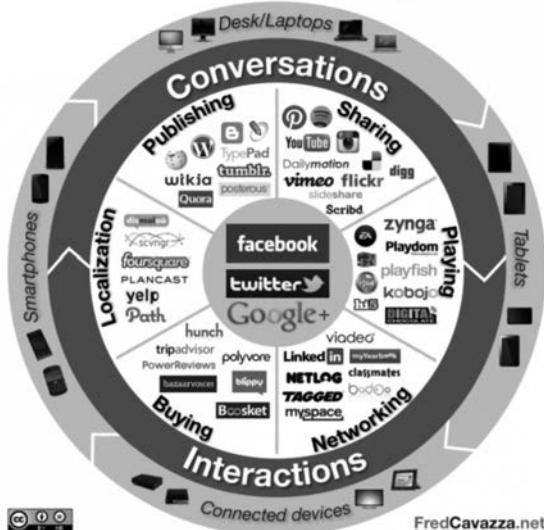
In today's informational, global and networked society (Castells, 2000), availability of and convenient access to information is one of the more empowering and revolutionary forces of the Internet (Fournier & Avery, 2011). Social media represent overall environments for the massively distributed collaborative of information and knowledge, offering a potential space for information sharing, idea generation, problem solving and relationship building; the basic idea of the service is crowdsourcing, also referred to as the wisdom of the crowds (Surowiecki, 2004), or 'co-creation', a term frequently surfacing in business literature (Prahalad & Ramaswamy, 2004). According to this concept, consumers are actively involved in the design of the products they consume and the co-creation aspect is manifested in the new, hybrid consumer role, *produsers*, in the sense that social media users are both potential users (in the narrow sense of information recipient) as well as potential producers of content (Bruns, 2007). The promises of social media are a facilitation of user participation and new ways of connecting, interacting and communicating with other people via blogging, social networking services and microblogging. Social media could then be said to be representatives of a second generation of knowledge management systems that are designed to encourage the development of communities of practice to stimulate knowing experiences, rather than merely facilitating transfers of knowledge. However, in primarily the manifesto-like literature like Wikinomics (Tapscott & Williams, 2006) there has been a tendency to argue for the universal benefits of these new media, giving rise to the mistaken notion that the social media technologies themselves are the solution to the creation of a collaborative culture and co-creative strategy (Van Dijck & Nieborg, 2009). Before elaborating on why this narrow focus on technology is mistaken and has little potential of leading to successful social media strategies, let us take a look at the various definitions of social media.

## Defining Social Media: An Affordance Approach

Social media are a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of *user generated content* (Kaplan & Haenlein, 2010). Social media are the means for any person to: publish digital content; provide and obtain real-time feedback via online discussions, commentary and evaluations; and incorporate changes or corrections to the original content (Dykeman, 2008, p. 1). In the social media landscape visualized below, the most common social media are highlighted and categorized according to their prototypical usage.

**Figure 1:** The Social Media Landscape.

### Social Media Landscape 2012



Source: Cavazza, 2012

At the center stage of the Social Media Landscape by Cavazza (2012), you find the social network sites, in this case exemplified with Facebook, twitter and Google +, on which publishing, sharing, gaming, networking, buying and localizing can take place in ongoing interactions, and sometimes conversations. This takes place from a device such as the laptop, tablet, smartphone and other connected devices. A general feature of these interactions on social media platforms is that the higher the social presence, the larger the social influence that the communication partners have on each other's behavior. This basically means that the more you share and give to others on social media, the more you are bound to receive back in the form of likes, comments and shared content, negative as well as positive. This leads to another way of defining social

media, which takes its point of departure in *social affordances*, referring to the perceptual cues in the environment that facilitate interaction (Hogan & Quan-Haase, 2010). In this understanding, social media afford two-way interaction with an audience, beyond any specific recipient, called *many-to-many communication* in which messages are broadcast to a wider audience, who then can engage in an exchange. People can participate not only through the creation of content but through the reorganization of content through new curation<sup>8</sup> practices, or even just by drawing attention to the content of others (Hogan & Quan-Haase, 2010: 310).

## *The age of corporate transparency and user empowerment*

Looking at social media in a business communication context, companies of today are faced with a reality where consumers speak freely and visibly with each other, and businesses have increasingly less control over the information available about them in cyberspace. In a branding context, Fournier & Avery (2011) call it a move from secrecy to transparency implying that branding has become an open source activity, where anyone and everyone has a say in matters of the brand (Fournier & Avery, 2011: 194). Public Relations historically has been about companies creating the ability to control the information available about them through strategically placed press announcements and good public relations managers, whereas social media increasingly have relegated companies of today to the sidelines as mere observers without the knowledge nor the chance – or sometimes even the right – to alter publicly posted comments provided by their customers (Kaplan & Haenlein, 2010). However, companies can, and increasingly do, choose to develop a strategy for their own social media presence. When entering the social media spaces, the companies are expected to function in highly responsive and attentive ways, not only listening in but also be vigilant with rapid and targeted responses (Crawford, 2009). An example of this is Southwest Airlines. When one of the flight company's airplanes skidded down the runway nose first when landing, they used social media to give a rapid and targeted response to the public about the incident. The result was that the readers of the posts complimented the company for actually coming out first and telling about the accident instead of waiting for media pressure before doing so.

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<sup>8</sup> The traditional notion of a curator is a trained expert who selects the finest objects. By contrast, social media is not a world of precious scarcity but of data abundance. Digital media can be copied, transferred, filtered, remixed, and sorted on the fly. (Hogan & Quan-Haase, 2010: 312)

**Figure 2:** Southwest Airlines uses Twitter to publicly address an airplane accident



Source: Boyd, 2013

**Figure 3:** Southwest Airlines uses Facebook to publicly address an airplane accident with direct crisis response



Source: Boyd, 2013

What is important to mention regarding the use of social media for crisis responses, like in the case of Southwest Airlines, is that in these cases, companies' weaknesses and shortcomings are highly exposed (users make public complaints and share them in their networks, hijack brand messages, and the stories are spread virally very fast with only a few clicks). Hence, it becomes obvious which companies are used to and already (pro)-active on social media platforms in their daily communication with stakeholders, and thereby know the

premises and dynamics of these media, and those who are not: if the company is already familiar with the social media platform and its strengths and weaknesses in communicating with target audiences, the more likely it is to use the platform strategically and precisely targeted during a crisis response. On the contrary, if the crisis becomes the reason for entering social media, the company will most likely be badly prepared for how to handle the reactions and the fast pace that characterizes social media interactions, in a time and situation where the company might be in a more vulnerable position than usual.

## *Open leadership and strategies of listening*

In her book on open leadership, Charlene Li (2010) also addresses how social media have shifted the balance of power. However, with a focus on the possibilities that this open technology environment offers companies, Li stresses how the shift in power does not necessarily mean a complete lack of control for companies. Rather it calls for an understanding of the shifting roles and boundaries of the communicating partners, and requires looking at the business strategy as a place where people empowered by social media want to contribute to companies. According to Li, the key points of a social media strategy are to recognize the key relationships for your business and how you want to interact with customers, employees, online activists and/or other key stakeholders. A company needs to know what these relationships should look like in action and find new boundaries and look for ways to build a sense of responsibility and empowerment into the relationships with employees and customers and align the organization with these new boundaries and relationships. This implies an understanding of social media as support for the relationships instead of the focus. Mastering social media is not about the latest shiny technologies; it is about having a clear idea of the relationship you want to form (Li, 2010).

Once you get the attention of the audience, a crucial part of the strategy is listening. Crawford (2009) addresses the concept of listening as a metaphor of paying attention online and *having a voice* be it in blogs, wikis, social network sites, or discussion lists, i.e. gaining a dispersed global awareness of how a brand is discussed. The patterns of consumer use and satisfaction can also be analyzed by listening and monitoring social network sites, such as Twitter and Facebook, considering them as giant focus groups and customizable databases for market research and direct access to positive and negative views of the company and its products (Crawford, 2009: 532). Since social media as spaces for observing various types of listening are the focus of Crawford's work, it provides a useful background for online listening strategies in the context of Maersk Line's social media relations' strategy, which will be elaborated on in the following section.

## *Maersk Line's social media relations' strategy: Supporting a culture of user involvement and participation*

With a clear and simple focus on coming closer to their customers in the industry and within different segments on the B2B market, the story of Maersk Line on social media is the story of building relationships online and creating a culture of participation. When searching for business cases on corporate social media usage, there seems to be a higher number of B2C examples, compared to B2B business cases. According to Evans (2013) from the Forbes digital publishing platform *Brand Voice*, a conventional-wisdom trap exists saying that B2B means Boring-to-Boring, implying that B2B companies are doomed to being so industrial-strength impersonal that they do not have a place on social media. Evans points to the case of Maersk Line on social media as a remarkable break-through example of B2B on social media that has proven this conventional-wisdom trap to be wrong.

The Danish worldwide shipping company, Maersk Line, entered the social media sphere in October 2011. The company went from being a hermetically closed organization communication-wise to inviting stakeholders in as proactive co-producers of content on social media platforms ([www.maersklinesocial.com](http://www.maersklinesocial.com)). In his book titled *Culture Shock in Maersk Line*, Lars Jensen describes how he and his fellow employees at Maersk Line during the 00s witnessed a deep cultural change in relation to the way the company viewed communication. This change towards a new open approach has, according to Jensen, been a gradual development and the result of a combination of external developments and deliberate and focused efforts over an extended period of time from people internally (Jensen, 2014: 179). Jensen explains how this development started in 2002 with attempts to gather a global overview of the many local initiatives, as well as the initiating of branding and PR efforts that were not part of the organization's communication before 2002. The increased level of openness proved to provide value to Maersk Line, and in subsequent years this openness spread to ever larger parts of the company as a whole, and today it is standard practice for Maersk Line to publish quite detailed information pertaining to their performance as well as their intentions through printed material, press statements, interviews and capital market days (Jensen, 2014: 187).

The Danish container shipping company with 25,000 employees and operations in 125 countries has marked their footprint with their corporate social network usage after having won the European Digital Communication Award in September 2012 for their social media campaign, being an example for other B2B companies to follow. In less than 11 months, Maersk Line attracted more than 400,000 fans on Facebook (today the number has passed 1,1 million fans) and

established a presence in nine platforms with nine different purposes (Cambié, 2012). According to the former Senior Director and Head of Communication and Branding at Maersk Line, Klavs Valskov, the company followed a simple "try-listen-learn-redo-fun-lean" approach, being explorative and trying different channels out. First, Maersk Line did some *background listening* before deciding whether to be on social media or not, and how:

*In October 2011, Maersk Line finally got going with social media. Up until that point in time we had been in what we termed "a listening phase", trying to digest what social media is about and decide whether or not it makes sense to be there for a B2B company like ours ([maersklinesocial.com](http://maersklinesocial.com): 'Why social media').*

In Maersk Line they explain the approach to social media as a humanization and influencing communication effort, which should mirror the company's behaviors in business and in society. It is a way of being heard in different ways on different platforms with different end users. Right from the softer side of things to the more hard-core business related messages (Maersk Line, 2013: 20):

*[Social media] is a mirror in the sense that it is what you put into it. It's a mirror of your personality – whether you're an individual or a company. In social media, people – whether it's seafarers or CEO's – don't want 3rd person narratives that are pushed out to the markets like press releases or TV ads. They expect a human touch. And if companies have that, and it's not in a manufactured way, they will be rewarded big time (Maersk Line, 2013: 20).*

## *Getting the right people on the social media bus*

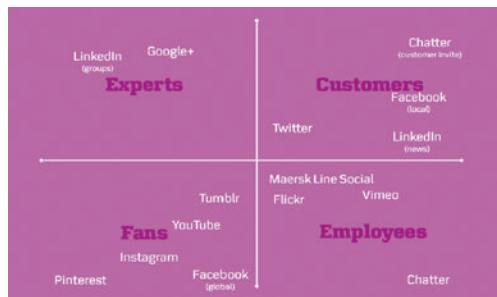
Another listening strategy that Crawford proposes, and which I find useful to explain the strategy of Maersk Line on social media, is *delegated listening* which means that corporations listen in and gain information through online communities. According to Valskov, the approach of Maersk Line has been ambitious and chances have been taken. In his opinion, the main reasons why Maersk Line has succeeded in their use of social media is that they had the understanding of the social world in place and that a strong team of communication people had a high mandate and high authenticity to execute the social media relations' strategy. It is crucial that the social media usage was placed within the communications department, and not marketing or customer service, he explains. Also, the brand is strong. The strategy was focused but not 100% planned. It was built organically: you have to gain some experience by trying it out, however, the main goal was to listen, tell stories and try it out and then see who reacted to the content. And many did<sup>9</sup>.

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<sup>9</sup> Interview of the former Senior Director and Head of Communication and Branding at Maersk Line, Klavs Valskov, on Skype, April 25 2014.

In Maersk Line they have mapped their primary audiences through the various social media channels, enabling a more targeted approach to each channel. Instead of mixing the content and messages or, as some brands do on social media, distribute the same content across all the platforms, Maersk Line wanted to have a distinguished approach to each of them (Maersk Line, 2013: 28).

**Figure 3:** A mapping exercise to make it clearer who are the primary audiences of each channel.



Source: Maersk Line 2013: 28

Regarding the choices of platforms, Google +, Facebook, LinkedIn and Twitter are the social media platforms at the center of their strategy. As an example, Facebook is used by the communication team to reach out to followers including NGOs, employees, potential employees, competition, suppliers, regulatory bodies and as Valskov points out 'a surprisingly large crowd of shipping nerds and enthusiasts'. Many of the employees are seafarers and they publish tons of pictures of e.g. pirates and heavy weather at deep sea. LinkedIn is used as a professional forum where the company can have conversations with customers, a tool for monitoring and spotting trends that affect the container industry and innovation, which Valskov considers much more vital than a survey.

**Figure 4: Debate and knowledge sharing in The Shipping Circle on LinkedIn**



Jonathan  
Unfollow

#### #7: How can we better serve our customers?

The fact that this topic is only no. 7 in our list of topics does not in anyway reflect the importance of it. In fact, some might argue that this is or should be the number one issue or concern for everyone in the industry.

Related questions are:

- \*How much does customer satisfaction matter?
- \*Does it really influence the bottom line?
- \*Is there a real need for more customer-centric shipping?
- \*And if so, how important is personal face-to-face relationship with customers versus e.g. online support?
- \*And finally, can you think of a an innovative solution of how to improve the customer relationship that carriers have somehow missed?

As always, I look very much forward to learn about your thoughts (whether short or long comments).

13 days ago

Source: Wichmann, November 2012

From the LinkedIn group and the discussion among shipping experts that takes place, Maersk Line has created user innovation in the form of a container that can be folded when empty:

*It goes to show that if you open up online and create the right conditions for a discussion, you could come across ideas that are worth billions (Valkov, in: Cambié, 2012).*

*Google + Hangouts* are used to hold smaller press briefings when the company is launching new initiatives. Three to four journalists can log on and have a live videoconference with some of the executives. *Twitter* is used by the many journalists that follow Maersk to download press releases and receive news from ten official Maersk tweeters including a chief commercial officer, the head of anti-piracy and business managers. To locate and recruit these tweeters, internal blogs and the Maersk Line intranet were used. Many legends and myths exist about the founder Mærsk Mc-Kinney Møller, who died recently, and Maersk Line has for the first time published historical photos from the Maersk archives that were never made public before.

**Figure 5:** Maersk has published photos from the archive that were never made public before on their company profiles on the social sites Instagram and Pinterest.



Source: Maersk Line on Flickr

For this they use the visually oriented social media sites *Instagram* and *Pinterest*, and users from all over the world show a great interest in these, clearly fascinated by the legend and myth. *Instagram* is used for visual branding and spotting trends. The photos uploaded by the users around the world have been collected and gathered in a mosaic, which is hanging on the wall in the office of Maersk Line's CEO Søren Schou and in the cafeteria at the headquarters.

**Figure 6:** The visual story of Maersk, told by users around the world through photos of Maersk Line, uploaded on different social media platforms.



Source: [www.maersklinesocial.com](http://www.maersklinesocial.com)

These are just a few of the nine social media platforms in which Maersk is present, and each has a specific writer(s), purpose and target audience.

Maersk Line clearly has invested human resources into their social media efforts. Valskov recruited a person, Jonathan Wichmann, with journalistic and communicative background to be the overall community manager. However, although having the main responsibility for driving the platforms, Wichmann is by far the only person writing content and responding on the Maersk Line social media platforms. Employees across the organization from various functions, geographies and cultures have been positioned as thought leaders in their specific areas of expertise. An example of this are the sales reps. who can use the social listening and monitoring to capture and react when customers are writing about, mentioning or even searching for an issue related to their shipping activities (Maersk Line, 2013: 55). Another example of thought leadership enabled through social media is the Head of Environment and CSR at Maersk Line, Jacob Sterling, who uses Twitter and LinkedIn to connect with and influence key stakeholders in the sustainability arena and with the media:

*Because we are the leading company in the industry, I think it's really important that we take the lead and communicate about what we are doing and what can be done (...) It's all about the customers. And again, it's actually about getting in early and teaching where our customers learn (Maersk Line, 2013: 56).*

## *Corporate storytelling*

Apparently, Maersk Line has done more than listening and responding. The company has set the scene for social media engagement on the various platforms and has a story to tell. Maersk Line's entering in social media is grounded in the phenomenon called corporate journalism. According to Wichmann, the interesting part for companies using social media is that they have an opportunity to be publishers of their own story and become their own news media in their own right and not the official press' and the journalists' rights. This means that social media enable companies to broadcast their own stories and rely less on external media to pick them up. This has also proven to be useful in crisis responses. Valskov explains how Maersk Line has used the social media platforms to prevent potential crises by reacting fast on the various social media platforms, like the official twitter account. An example is when the ship Emma Maersk allegedly had hit ground in Egypt. Since both Valskov and Wichmann, being the social media management team at the time, had contact to official tweeters located at the place, they were able to make a statement immediately on twitter, post pictures from the area and hence be in control of the situation before any other media picked up the story. As a result, no crisis developed, according to Valskov<sup>10</sup>. Another example of a successful crisis response from the company dates back to June 2012 when a Maersk Line ship hit a whale. By being fast in providing information and honest about the incident on Facebook, the users responded to the tragic incident in a positive way.

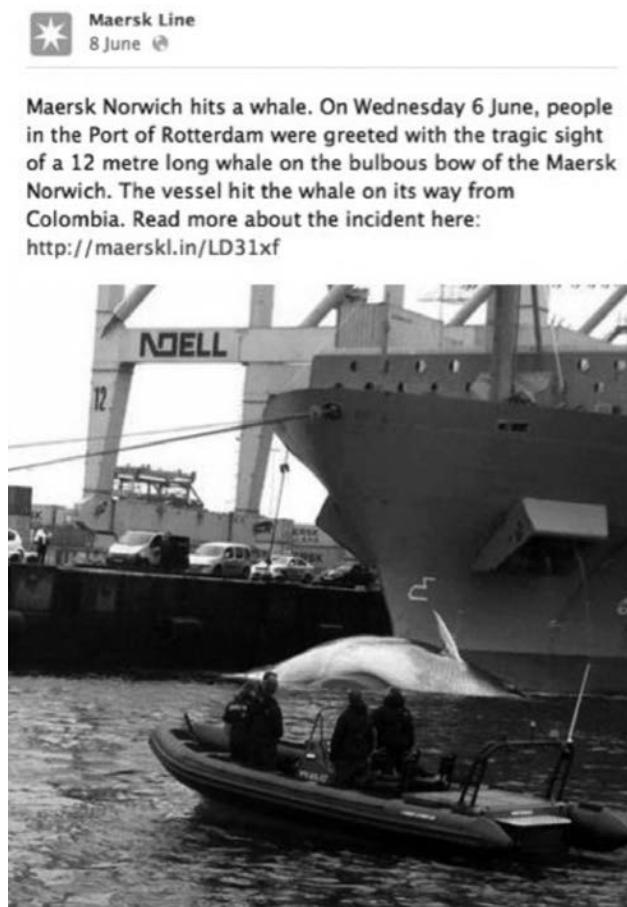
Maersk Line has also done what Crawford refers to as *reciprocal listening*, which means hearing and responding to comments and direct messages (as opposed to a broadcast-only model, leaving no room for dialogue). According to the former head of social media in Maersk Line, Jonathan Wichmann, the approach has been systematic, controlled by the users, experimental and visual. "It is lean", he says. The key to the high engagement score in Maersk Line's many social media platforms is not about being on this and this many platforms, it is in the way that the company works with social media. The key has been the aligned approach and breaking down the silence, inviting the public in and creating room for doing so. From the beginning it has been a goal not to use social media as marketing platforms but as communication platforms to come closer to the customers. Instead of transmitting messages, Maersk Line wants to engage the users and create content and communication that is trustworthy. On the Maersk Line Social site it says:

*Social media is about communication, not marketing. It's about engaging, not pushing. And social media is definitely not just about the media side (...)*  
*Social media is a mindset, a way of thinking and working together. ([www.maersklinesocial.com](http://www.maersklinesocial.com))*

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<sup>10</sup> Interview of the former Senior Director and Head of Communication and Branding at Maersk Line, Klavs Valskov, on Skype, April 25 2014.

**Figure 7:** Post on Facebook about Maersk Norwich's clash with a whale. Notice the likes and shares are almost 1-1



Source: Maersk Facebook page, June 8, 2012

In Maersk Line, they are also highly concerned with internal communication leadership and spend a large amount of time on internal discussions about the right platforms. What most companies do is use social media narrowly in their marketing, recruitment and HR. What Maersk Line has done is a strategic use in all processes in the company's external (and to some extent internal) communication, strengthening the relations and collaborations both externally and internally. To Maersk Line, the value of their social media efforts has been to become wiser about the company faster and cheaper than ever before and with a better result (Maersk Line, 2013: 3). According to Maersk Line's social media study in 2012, the very visible external usage of social media has had a significant impact on the organization and the culture. Not only as regards the transparency and empowering of the employees (still on a small scale) to use it to position themselves as thought leaders, but also as a an indicator of the direction

for the journey in Maersk Line towards a culture of sharing rather than protecting knowledge, towards a focus on 'we' instead of 'I' and on job tasks instead of job titles (Maersk Line, 2013:3). They measure the effects of social media in both a direct ROI and an indirect ROI, and the benefits of the indirect ROI are according to the Maersk Line Study 2012 by far the highest and include improving customer satisfaction and loyalty, improving sales performance, creating brand preference, positioning the company as an employer of choice, increasing employee engagement, getting better customer insights, driving the agenda in the industry and, not least, optimizing the way the organization works (Maersk Line, 2013: 5).

All these potential benefits and the results already obtained by Maersk Line sound promising and as something that every business would want to gain. However, it also resembles an ambitious and highly dedicated communication management effort and allocation of resources. From a critical view, especially at one point, Maersk Line's social media relations' strategy is particularly vulnerable. The success of Maersk Line's social media usage is highly pointing back to two persons, former community manager Jonathan Wichmann and the Head of Communication at the time, Klavs Valskov, who have been the key drivers of the start-up of all social media activities, assuring the alignment of the different efforts and their differentiation. This poses a risk if and when one day this person is not there anymore and the responsibility is delegated to someone else<sup>11</sup>. Connected to this critical point is another concern regarding ownership of content. When the employees write on social media platforms, they write as representatives of Maersk Line. When they are no longer employed by that enterprise, their presence is still associated with the company. Clear guidelines on how to handle these situations, particularly if the employee in question starts working for a competing company, need to be in place.

Another challenge is keeping the audience tuned in. Many companies that have entered social media have received a lot of attention simply for doing so as maybe the first in their field, like in the case of Maersk Line and the B2B market perspective. With time, the interest might fade out and the picture look different when more companies and brands start to invest heavily in social media presence. Will Maersk then be able to keep the number one position that they seem to have gained within the social media usage in B2B? Time will tell. There are, however, no indications of Maersk Line slowing down their efforts on social media. On the contrary, the future of Maersk Line on social media will, according to Wichmann, extend the present use of maersklinesocial.com grounded in the communications department to also include customer service, sales and the internal use of social technologies for collaboration (Wichmann, March 2013). To accomplish this, and on the basis of their extensive study, Maersk Line propose a scope for social

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<sup>11</sup> Neither Klavs Valskov nor Jonathan Wichmann is employed at Maersk Line today. They have left the company and are now working as consultants. They are, however, still giving presentations and writing about their work with the Maersk Line Social Media Relations Strategy.

media that is to both consolidate and expand the social media efforts with a cross-functional team that is rooted in Communication whilst reaching out to 'satellites' in both Sales and Customer Service, as well as developing and optimizing the internal collaboration efforts already set in motion via the different social media platforms like Sales force's Chatter (Maersk Line, 2013: 3-4).

## *Take-aways from the case of Maersk Line's social media relations' strategy*

Maersk Line's social media relations strategy serves as an example of a listen and learn approach going all in, and gives an indication of the results of a clear strategy for framing, maintaining, embracing and developing the social media efforts continuously. Clearly, every B2B company cannot copy-paste what Maersk Line has done, since every social media effort will be highly industry and company specific. However, with point of departure in the case of Maersk Line on social media and the researchers Kaplan & Haenlein's advice about corporations using social media, the take-aways more generally speaking can be summarized as this:

- Choose carefully when you pick the application, or make your own
- Ensure activity alignment
- Be active, be interesting, be humble, do not be afraid to make mistakes and avoid overly-professional content offerings
- Do not hire outside professional writers to manage your corporate social media sites, but hire one with the appropriate background for the purpose who can drive and maintain the process and delegate the writing to key persons in the organization
- Be honest and respect the premises of the Internet and its users.

## *Implications of social media on public structures and port authorities*

Having given a voice to a business case on social media which at many levels can be characterized as a best practice case, the present book chapter contributes with knowledge on both context, social media strategy work and concrete examples of social media usage as planned and executed by a large and worldwide shipping company. The present analysis can inform port authorities on how to implement social media in their business communication. Managers who have or are planning to establish a social media presence should focus on which relationships they want to build, and how they can gain from listening in on and talking with the various stakeholder groups on online social media platforms. Insights are also given on how to choose these platforms on the basis of thorough investigation of the relevant stakeholders to target and on which platforms they spend their time to potentially accomplish user involvement and participation.

Also, internally the employees should be considered as potential social media writers and community drivers, which implies allocating time and resources to prepare and listen continuously to what motivates them and make sure they are comfortable with their role as a blogger, tweeter or the like. In the allocation of time and resources, the importance of having an overall responsible from within the company to facilitate and drive the social media presence has been stressed. This person should be in charge of pointing out, training, encouraging and motivating the existing employees in their role as thought leaders on social media.

Regarding the social media strategy, the port authorities and shipping companies have to decide whether a social media strategy should be built on spreading and broadcasting the same corporate messages on new technologies, or whether a people-centered approach, creating a culture of participation and user involvement will be the way to go. Based on the experience of Maersk Line, having a clear aim but not a static plan is recommended. Flexibility and a high degree of adaption are needed in the strategy work to embrace the changing environment of social media. Addressing these issues is of high relevance for all kinds of open-source technology that is implemented in organizations and which includes transparency and interactional elements that the individual employees have to manage and deal with. Maersk Line has taken the first step and shown that social media use in a shipping company can create value.

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# Chapitre conclusif

## The effectiveness of port-city governance

*Olaf Merk*

*Administrator Ports and Shipping*

International Transport Forum (ITF) at the Organisation for  
Economic Co-operation and Development - OECD  
Paris - France

## Biography

*Olaf Merk is Administrator Ports and Shipping at the International Transport Forum (ITF) at the Organisation for Economic Co-operation and Development (OECD), international organization in Paris. As such, he directed studies on ports, port-cities, port regulation and governance. Olaf Merk is the author of various OECD books including "The Competitiveness of Global Port-Cities". As Administrator of the OECD Port-Cities Programme, his previous position, he directed 15 additional studies on port-cities, including on Hong Kong, Shanghai, Rotterdam and Hamburg. He has authored various port-related articles in academic and professional journals. He is also lecturer on port economics at the Institute for Political Science (Sciences Po) in Paris and the Normandy Business School (Le Havre/Caen). Prior to the OECD, he worked for the Netherlands Ministry of Finance. He holds a Master's degree in Political Science from the University of Amsterdam.*

[olaf.merk@oecd.org](mailto:olaf.merk@oecd.org)  
[www.oecd.org/regional/portcities](http://www.oecd.org/regional/portcities)  
twitter: o\_merk

## *Shared and differentiated challenges*

Port-cities are not theoretical constructs, but concrete realities. Not only technical experts but also normal people can be heard to talk about port-cities. Ports have in so many cases been at the basis of cities that the city and its port continue to be some sort of Siamese twin in linguistic terms, even if the actual links might already have loosened. Ports are in this sense different from other infrastructures: one rarely hears someone speak about railway-cities or airport-cities; and in the occasions one does – e.g. disguised in terms as “aerotropolis” - one cannot stop asking if the word refers to something that actually exists or rather to an imaginative or potential reality. Apparently there is something about cities with a port that distinguishes them from other cities.

What makes port-cities different from other cities is – evidently – the port, in particular its spatial, economic and mental imprint on the city. *Spatial*, because it is the port that gives the port-city its characteristic form, even after port functions have disappeared. *Economic*, because the port allows the city to be open towards the world, trade and entrepreneurship. *Mental*, because the port gives the city its freedom, diversity and dynamism. In port-cities “the unknown streets bear the names of rivers and of countries”, recalls the Flemish poet Paul van Ostaijen.

Because of their common features, port-cities have shared challenges. How to bridge the global and the local, how to combine flows of people and goods, how to design a balanced interface between sea and land? At the core is the fundamental question on how to mix two inherently different logics: the semi-closed world of club goods (modern ports) and the open networks of urban agglomerations (global cities), each suggesting two different sets of policy orientations that somehow need to be bridged (Table 1). How to create port-related value added, solve port-related congestion, mitigate port-related environmental impacts, manage land use conflicts between port and city, preferably in such a way that citizens are proud of their city and port? Similar challenges are not unknown to other cities, but the presence of a large working port gives them a whole different dimension in port-cities. The port-city commonalities can explain and give meaning to programmes that compare port-city policies - such as the OECD Port-Cities Programme, and organisations that bring together port-city actors - such as the AIVP.

**Table 1 : Typical policy aims for ports and cities**

	<b>Port</b>	<b>City</b>	<b>Port-city</b>
<b>Structural logic</b>	Closed cluster	Open networks	Mix
<b>Transportation</b>	Freight	Passengers	Smart co-existence or dedicated corridors
<b>Labour</b>	Efficiency	Job creation	High value added employment
<b>Environment</b>	Limit impacts	Quality of life	Green growth
<b>Land use</b>	Cargo handling, industry	Waterfront for housing	Mixed, with some role for port

Source: Merk (2013)

The evolutions of port-cities have been extensively described. The most relevant well-known evolutionary model is the port-city interface model as developed by Hoyle (1989). He distinguishes five different stages of port-city interactions that go from integration in primitive port-cities, to expanding port-cities, modern industrial port-cities, retreat from the waterfront and finally the redevelopment of the waterfront. This trajectory illustrates the disintegration of port and city in subsequent stages that are placed in time: the period of the modern industrial port-city being the mid-20<sup>th</sup> century, the retreat from the waterfront from the 1960s to the 1980s and redevelopment of the waterfront between the 1970s and 1990s. Although certainly capturing a generic development path that applies to many port-cities, it fails to account for the many port-city trajectories that do not fit neatly with the stages, let alone with the time-line.

Despite their common features and challenges, port-cities can be hugely different from each other. Ports have different functions, layout, volumes, and surfaces that make every port-city different. Not surprisingly, efforts have been made to bring some order in this seemingly endless variety. A well-known typology of port-cities is based on two different indicators: the size of urban or regional population, and the size of port traffic ; the relation between the two can be used to measure maritime dependence. Such a relative concentration index has been applied for typologies of Mediterranean port regions, to US port-cities and port-cities on a world-wide level. Depending on the dominance of port and city, Ducruet and Lee (2006) have developed a typology of nine different port-cities, ranging from coastal port towns to the world port city. They calculated relative concentration indices of 653 different port-cities between 1970 and 2005 which allows them to outline different port-city trajectories. Although intuitively convincing and theoretically attractive, one can wonder what the practical applicability of this categorisation is. Port-cities that fall in the same category often have strikingly different development paths and very few policy challenges in common.

The typology that for the moment seems most policy-relevant is one that crosses the growth paths of port and city, suggesting four different types of port-cities. The first type of port-city has both population and port growth; the main challenges of these port-cities include space constraints, congestion and under-capacity of the port, with the need for infrastructure investments and relocation of port sites. This subsequently opens up the possibility of transforming port land into housing or mixed urban development. The port-cities of the second type, growing cities with ports that face declining cargo volumes, typically convert to urban waterfront development. While they may also be dealing with a transformation of port land to different uses, like port-cities with growing ports and population, their port area simply shrinks. In contrast, the cities in which the population is shrinking and the port growing (type 3) have a different concern, which is to find port cargo outside the metropolis and better connections with the hinterland. Finally, the port-cities where both ports and cities (type 4) are in decline need to find new sources of growth. Transformation of

port areas there may require less new housing development but cultivate leisure or business areas instead, as well as attempts to attract new services and port niches.

**Table 2. Policy challenges for different port-city types**

	<b>Growing city</b>	<b>Shrinking city</b>
Port growth	New port sites (Singapore)	Extending hinterlands (Rotterdam)
Port decline	Urban waterfronts (Baltimore)	Economic transformation (Bilbao)

Source: Merk (2013)

## *Gaps in existing knowledge*

There is a large demand for insights on which port-city policies and institutions work. This demand can be illustrated by the appearance of reports on port policies driven by the ports sector, in particular the European Seaports Organisation (e.g. ESPO 2012) and International Association for Ports and Harbors (IAPH) in policy areas such as green port policies, environmental management and renewable energy in ports. The great popularity of the conferences of the International Association of Cities and Ports (AICP) is another indication, as well as the wide support for our OECD Port-Cities Programme, entirely funded by interested ports and cities.

However, there is not an extensive academic literature on port-cities. Almost as if the physical disintegration of port and city has resulted in scientific compartmentalisation (port studies on one side, urban studies on the other), which makes studies on port-cities relative rarities. It is remarkable in this respect that studies on the history of port-cities are flourishing, whereas research on the current state of port-cities is more or less missing. The research on port-cities that exist is mostly based on place-specific case studies, but a comparative perspective is mostly lacking also because a common methodological framework is not applied – one of the reasons why we have developed the OECD Port-Cities case studies with one harmonised methodological framework.<sup>1</sup> Issues that have been treated in academic literature are port impacts on cities, spatial relationships between ports and cities, port-city economic trajectories, port-cities in history and a large amount of case studies of specific port-cities.

What is striking in most of this literature is the absence of description and assessment of port-city policies. There are only a few assessments of specific policy instruments. There is some literature on port pricing policies, but most of this literature is theoretical rather than practical. There are articles on port labour markets, but these focus more on institutional mechanisms rather than public policy tools. However, there are exceptions; e.g. the effectiveness of port gate strategies and truck retirement programmes in US ports have been well analysed and documented (Bishop et al. 2011, Lee et al. 2012, Dallmann et al. 2011, Norsworthy and Craft 2013); the effectiveness of some maritime cluster policies

has been assessed (e.g. Doloreux and Shearmur, 2009), as well as environmental port dues (Swahn, 2002), onshore power (Arduino et al. 2011) and waste reception facilities (De Langen and Nijdam, 2007). However, most reports on port and port-city policies are not coming from the academic domain, but have been written by international organisations, such as World Bank (The Port Reform Toolkit), ILO, IMO, European Union and OECD (OECD 2011, Merk 2013). It is within this context that we have tried to provide an overview of existing policies (Merk, 2013) and to quantify the effectiveness of these policies (Merk and Dang, 2013). This chapter provides main findings from these publications and assesses their relevance for port-cities.

## *Measuring effectiveness*

We have attempted to measure the effectiveness of port-city governance by i) identifying the links between port and city on the basis of quantifiable outcomes; ii) assessing policy effectiveness in achieving such outcomes; and iii) highlighting emerging patterns of various policy instruments taken as a whole. Governance is here broadly defined, so it includes policies and institutions. We have conducted this analysis in Merk and Dang (2013) by using the principal component analysis (PCA), an appropriate methodology to explore these issues. It allows to measure key correlations for a set of indicators, shows the direction of the correlations, and summarises the various indicators into a limited number of interpretable factors. As such, this technique helps to derive good summary indicators to address the multidimensional aspect of port and city outcomes, identify ports which are performing along these factors, highlight policy effectiveness by comparing port performance to port policy scoring, explore the links between policy scores across different policy areas.

For the purpose of that study we build a database of main port-city instruments and port-city outcome indicators. Policy instruments were identified (Table 3) on the basis of a series of place-specific case studies that were conducted within the framework of the OECD Port-Cities Programme<sup>2</sup>, as well as additional port-city profiles collected for this purpose. For each port-city, scores were assigned to each policy, ranging from A (best practice) to D (policies that in comparison to those of peer port-cities lag with respect to effectiveness, seriousness, comprehensiveness and variedness). In addition, policy outcome indicators were identified, covering port development, port-city development, transport, research and development, spatial development, environment and communication as described in Table. The collection of the policy outcomes and policy scores was conducted for a selection of 27 large world port-cities from OECD countries, plus Singapore and China, in order to represent the major ports and port-cities of the world.

**Table 3.** Main port-city policy instruments

Policy areas	Policy instruments
Port development	Long term strategic port planning Modernisation of port terminals Port information systems Industrial development policies on port site Development of new port functions Port labour relations Upgrading port workers' skills
Port-city development	Creation of maritime clusters Attraction of port-related headquarter functions Economic diversification policies Creating synergies between port and other clusters Coordination between ports Cooperation with neighbouring port-cities
Transport	Intermodal access of hinterlands Modal shifts of hinterland traffic Dedicated freight lanes/corridors
Research and innovation	Innovation policy to improve port performance Fostering local research related to the port sector Attraction of port-related research institutes Attraction of innovative port-related firms Logistics related innovation systems
Spatial development	Port land use planning Common master plan for port and city Waterfront development Urban regeneration of old port and industrial sites Integral coastal/river management
Environment	Emission reduction policies Climate change adaptation policies Renewable energy production in the port Energy efficiency policies Waste reduction policies
Communication	Port communication and information Maritime museums Waterside leisure and recreation Cultural projects related with port Port as part of global city-brand

Source: Merk and Dang, 2013

**Table 4.** Main port-city outcome indicators

Policy areas	Outcome Indicators
Port development	Port throughput 2009 (million tonnes) Port throughput containers 2009 (million TEUs) Growth port throughput (1971-2009) Growth port throughput TEUs (2001-2009) Value added port area (million USD) Efficiency index Maritime connectivity (degree of centrality) Maritime connectivity (clustering coefficient) Diversity maritime connections (diversity in vessel movements)
Port-city development	Metropolitan GDP per capita 2008 (USD, constant real prices, year 2000) Growth metropolitan GDP per capita 2000-2008 (USD, average annual growth) Metropolitan population 2008 Metropolitan population growth Port related employment (including direct and indirect port-related employment) Port-related labour productivity (ratio of port related employment and value added port area) Unemployment rate (2008)
Transport	Motorway network density (km/1000 km <sup>2</sup> ) Railroad network density (km/1000 km <sup>2</sup> )
Research and innovation	Total patent applications in region (TL3, 2005-2007) Patent applications in shipping sector (2005-2007) Number of articles in port research journals (1995-2011)
Spatial development	Land surface of port (km <sup>2</sup> ) Urbanised area (km <sup>2</sup> )
Environment	CO <sub>2</sub> emissions per capita (tonnes per inhabitant, 2005) Population exposure to PM <sub>2.5</sub> (annual average 2005)
Communication	Number of Twitter followers (31/1/2013)

Source: Merk and Dang, 2013

On the basis of these data, using the principal component analysis, the effectiveness of port-city policies was assessed by confronting policy outcomes with policy instruments in five different policy areas: port development, port-city development, transportation, environment, and a last category that includes R&D, spatial development and communication.

## *Governance key determinant of success*

The results of our study confirm that governance is a key determinant of success. Sound policies can make a difference to port-cities, but in some areas more than others. The most effective port-city policies are transportation and R&D policies. Port policies are effective in stimulating high port traffic performance. Performance in this context is characterised by high standards in traffic volumes, port efficiency, and port connectivity as a central and diversified node. Policies focused on transport and research and development (R&D), are found to be effective in stimulating port growth and port-city development. Port-city prosperity

mostly relies on high value-added and employment level generated by the port. Such features are likely to be prone to high transport density network and innovation, but also to negative externalities as CO<sub>2</sub> pollution. Policies aimed at creating port-city synergies are found to be relatively ineffective in achieving both high port performance and city prosperity. City prosperity seems to be directly fuelled by port activity via port-related value-added activities and employment, but not so much by port-city policies. Spatial and communication policies also have mixed results in this respect (Merk and Dang, 2013).

Our analysis on the policy mix is confirmed by findings from the instruments for which policy evaluations exist. Our inventory and assessment of port-city policy instruments (Merk, 2013) reveals that various policy instruments related to transport have proven to be effective, which is often not the case for policy instruments in other fields where the perception of policy effectiveness is often based on anecdotal evidence and selective observation. Examples of transport policies with sound scientific evidence on effectiveness include programmes to replace old port trucks and extended port gate hours, to redistribute the arrival times of truck to port terminals throughout the day.

Our studies thus suggest that policy effectiveness in port-cities could possibly be increased by focusing even more attention to transportation policies, one of the most effective policy areas. Port-cities with average to least performing policy packages would benefit from moving their policy efforts towards the benchmark within the policy areas where they are the least performing, or focusing on the policy areas where public intervention is most effective, such as port development, transportation and R&D. However, there are limits to generalisations : there is not one universal policy recipe.

## *Limits of universal policy recipes*

The typical port-city does not exist; rather, there is only a collection of port-cities with various characteristics and heterogeneous opportunities. In the synthesis report of the OECD Port-Cities Programme (Merk, 2013) we have observed a mismatch between benefits of ports and their negative impacts. Substantial benefits from ports exist, but they come with considerable leakages to other regions, whereas most of the negative effects of ports are localised, including environmental effects and most traffic impacts. Despite this common denominator, concrete impacts and implications differ depending on local circumstances, on the character of the port-city interface and the functional composition of the port and its city. Large-scale industrial development on or close to port sites requires a huge amount of bulk goods, generally associated with fairly limited job intensity, a variety of environmental impacts and strong local economic linkages. Container traffic has similar low job intensity, fewer local economic linkages and environmental impacts

related to shipping and hinterland traffic, but less polluting impacts, because the connected economic activity is less industrial. Maritime business services generally generate high value added and limited environmental impacts overall, but are connected to large ports or large metropolitan areas. Cruise shipping is less space intensive than most other port functions, but the economic value it generates is fairly limited unless it is linked to a port-related waterfront. However, it can have relatively severe environmental impacts (emissions, noise) especially if terminals are close to city centres, which is frequently the case.

Choosing an effective strategic policy must be informed by a clear assessment of existing local assets. Economic history is to a large extent determined by path dependency, and heroic, if not always successful, attempts to change existing trajectories. Not every port-city or every maritime nation can or should stake its economic development on the growth of its maritime cluster, if only because there can only be a few leading global maritime clusters in the world. Various port-cities have invested in heavy industrial development, which provides them with certain assets but also involves sunk investments that can limit alternative economic development. Similarly, not all port-cities can develop a successful waterfront, because success is defined by how well it can divert visitors, high-earning residents and investors away from other urban waterfronts. Only rarely, as in Bilbao and Bremen, have radical conversions of the economic destiny of a port-city had unqualified success. Looking for an effective mix of policies is a delicate balancing act between building upon existing strengths and developing new assets and capabilities. However, there are a few generic critical conditions for effective port-city policies.

## *Critical conditions for effectiveness*

An analysis of critical conditions for effectiveness of governance in port-cities starts with three observations that are almost trivial. First, successful port-cities can only be successful if they have a competitive port: without this they cannot even start to generate value added from the port. Second, effective port-cities are those that manage somehow to use the port as driver of urban economic growth; we will describe how this could be done. Finally, a port-city can also be considered successful if it has managed to mitigate the negative impacts from its port.

## *Competitive ports*

Recent studies have emphasised how important ports are in global supply chains. Their effectiveness depends ultimately on how they link up with these chains both by sea and by land, and also how port operations are aligned with shipping and hinterland transport. Four complementary areas competitive ports can pursue have been presented throughout our OECD Port-Cities Programme: maritime

connectivity, effective port operations, strong hinterlands and cultivating local goodwill. Ports with good practices in one domain tend to perform well in others, as in the case of Rotterdam. The continuing increase in ship size calls for better hinterland connectivity, whilst the trend towards port concentration makes local goodwill an important part of sustaining ports' functions close to cities. However, much depends on local circumstances. Some factors are exogenous, such as geographical location and to some extent nautical access, but even these are subject to change for example in the case of the future navigability of the Arctic seas. Port authorities have an important role to play in improving ports' competitive position, with the help of other actors, including national governments and cities. The area is relatively well researched: the determinants for competitive ports are known and identified, even though it is not always clear what this should mean in terms of concrete policies. Our study indicates that, in general, port policies have a positive impact on value added and economic performance.

## *Generating local benefits from ports*

Three main economic policy models for port-cities are applied: maritime clusters, industrial development and urban waterfronts. These have different orientations, but are often simultaneously pursued in the world's largest port-cities. Some of these functions are easier to combine than others. Maritime clusters and urban waterfronts can reinforce each other, whereas a successful marriage between industrial development and maritime clusters is not as easy to achieve, due to the fundamentally different logic that informs them. However, port-cities such as Singapore and Hamburg have managed to combine the three strains, through a judicious choice of policies. The room for manoeuvre for public policies should not be overestimated in the market-driven environment of global shipping. Many of the linkages between producers, customers, suppliers, labour markets, training institutions and intermediary services that compose a maritime cluster or other port-related development form through necessity and a response to market signals that governments can hardly foresee or influence. It is not certain that policy intervention is always an effective or necessary component of maritime cluster growth. Moreover, not every declining sub-sector can be saved. While renewal of declining maritime clusters has been possible in certain (e.g. Norway) where niche specialisation and cost-reduction through targeted outsourcing helped to breathe new life into an ailing shipbuilding sector, policy focus on declining sectors is not always desirable. This is of particular relevance to industrial development policies. Many port-cities in developed countries have been confronted with outsourcing of heavy industries and refineries. A proper understanding of needs and possible transitions is thus a prerequisite for any policy formulation.

Policy initiatives can be effective if their underlying rationale is grounded in a response to a real and problematic deficiency in the status quo. Underinvestment into emerging markets, where potential for growth has been identified but is not

being exploited due to private sector reluctance, might indeed be remediated by the provision of public funds for R&D. An obvious lack of qualified labour in industries could be at least partially resolved by publicly promoted partnerships between training institutions and maritime firms. Firms with similar needs that do not interact or represent their interests collectively as part of shared marketing or lobbying strategies, might collaborate more effectively through complementary spatial planning frameworks or publicly created networking platforms. When a key component, such as the registration of ship-owners, of the maritime cluster is in decline and this is bringing down with it the firms dependent on the demand generated by that component, targeted regulatory or fiscal intervention at the national level may slow down or reverse such a decline. Successes include Quebec's "Innovation Maritime", which has carried out 200 R&D projects for the maritime sector with government grants; and publicly sponsored educational partnerships through the industry-led Deltalinqs platform that have helped to turn Rotterdam into a leading centre for maritime expertise.

Policy initiatives must be adapted to the maturity of the sector. Developmental support, such as incubator infrastructure or the provision of venture capital, can be vital for emergent clusters, as in the case of Los Angeles' PortTech industrial park, which has helped set up a clean port energy cluster. However, this cannot help clusters that have already matured or are in decline. Similarly, it can make sense to assist with internationalisation of markets where clusters have matured, or to institutionalise inter-sectoral interactions where such linkages have begun to emerge, but global competition can imperil markets that are not mature enough to handle expansion, and interactions between sectors with little need of collaboration cannot be forced.

The composition of economic functions is highly relevant to all three strategic policy options. The most successful maritime clusters, such as London, Singapore and Hong Kong, are those that have developed into well-rounded and diverse clusters. Their diversity attracts new businesses because they can be guaranteed to find high-quality services in any maritime-related branch. Some maritime port-cities, such as Rotterdam, have developed policies to benefit strong sub-sectors within their maritime cluster, but would need to strengthen underdeveloped sub-sectors in the cluster (Merk and Notteboom, 2013). Development of new industrial functions in port areas is hugely dependent on the existing industrial infrastructure that determines the potential for exchanging residual products. Mapping current and potential links can help identify gaps in commodities or infrastructure that can help create new economic opportunities. The mix of economic functions is also key in determining if urban waterfronts can attract visitors and create economic wealth.

The policy mix should be coherent: policy instruments should neither overlap nor work at cross-purposes. Networking mechanisms can generate overlap: too many different networking platforms can result in intra-sectoral competition and

the fragmentation of available financing. If the effects of one policy on another have not been carefully gauged, instruments can cancel one another out. In India, benefits to the shipping sector from the introduction of the tonnage tax in 2004 were largely nullified by increases in indirect taxation through the services tax in 2007, which reduced prior gains in foreign direct investment in India's shipping sector. Co-ordination between instruments is closely related to co-ordination between actors. Stakeholders in the maritime sector must be clear about their priorities and intentions, and policy makers must seek to incorporate these priorities through a consultative process. The alignment between local and national policies is particularly important in this regard.

## *Mitigating negative impacts*

A variety of types of policy instruments can mitigate negative port impacts, from regulation to market-based incentives, information and technology upgrades. Many of the policy choices made will depend on the local situation, but the most convincing examples of policy performance involve a coherent package of inter-related instruments, such as those used in Southern California for the San Pedro Bay Ports Clean Air Action Plan. Mitigating negative port impacts requires the interplay of different levels of intervention, ranging from the local on up. Given the nature of the shipping industry, some environmental impacts of shipping are best tackled at the global level. Self-regulation of ports can work, but in most cases, external pressure is needed. Some port-city policies entail joint benefits. For example, reducing port-related traffic congestion has positive environmental effects; and modal shifts of hinterland traffic not only improve environmental performance but can also reduce traffic within the city. Policy trade-offs, for example between security and commercial concerns must also be taken into account.

## *Potential of peer-to-peer learning*

"The fox knows many things, but the hedgehog knows one big thing", the ancient citation which formed the basis of Isaiah Berlin's classification of writers, has much relevance to the state of current discussions on port-cities. There is a gaping divide between the hedgehogs – with their models of one typical port-city trajectory – and the foxes – that stress the uniqueness of each port-city. Port-cities all over the world would benefit from bridging this dichotomy of universality and an eternity of unique cases. The conversation between hedgehogs and foxes is long overdue: such a discussion might help to put place-specific knowledge into a larger context and get conceptual models to take a richer set of real-life observations into account. Ports and cities play an essential role in this: their search for policy innovations bridges the two premises of uniqueness and universality, by assuming that studying and understanding – not blindly copying –

instruments applied elsewhere could provide inspiration for tailor-made local solutions. The challenge for the coming decades – and the current monograph is just one step - is to enhance and explore this enormous potential of peer-to-peer learning.

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## *Notes*

(Endnotes)

- 1 By way of counterpoint, the lack of comparative studies is not unique to port-city studies, and might be explained by the fact that real international experts are very rare, with most academic experts having deep knowledge only on a maximum of three countries. A way to solve this would be to stimulate international consultants to write, but most of them seem to be more comfortable with not sharing their knowledge.
- 2 Case studies are publicly available on [www.oecd.org/regional/portcities](http://www.oecd.org/regional/portcities)
- 3 For an overview of sources of these policy outcome indicators, see Merk and Dang 2013

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