

Chapitre 3

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

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Biography

Michaël Doms (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

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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), 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 (Deurganckdock, 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 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 on board 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; Doms 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 CO₂ 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 Report¹, 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 ²	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 ₂ 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

¹ 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)	Port Authority level:
	Characteristics of employment (fulltime, long-term); Local share of port employment in total employment	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**)		
	Energy use per production unit	Onshore power KPIs (7 KPIs)
	Differentiated port dues performance	Differentiated port dues KPIs (7 KPIs)
	Oil Calamities	Immediate environment (7 KPIs), incl. complaints received
	Waste flows, Water use and quality, Emissions and air quality (CO ₂ , SO ₂ , NO _x , PM ₁₀), 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**)		
	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 standards², including a so-called 'attestation'³ 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

² 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).

³ 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 need 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 monitoring⁴.

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

⁴ 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 ports⁵, 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*

⁵ With the exception of the American Association of Port Authorities’ (AAPA) Customer 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

Group 1: Indicators on commitment and participation
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
Group 2: Indicators related to impact experience
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 (Boutillier and Thompson, 2011).

Second, when interacting with citizens, organized structures are preferred over unstructured or unorganized interactions (Deforche at 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.

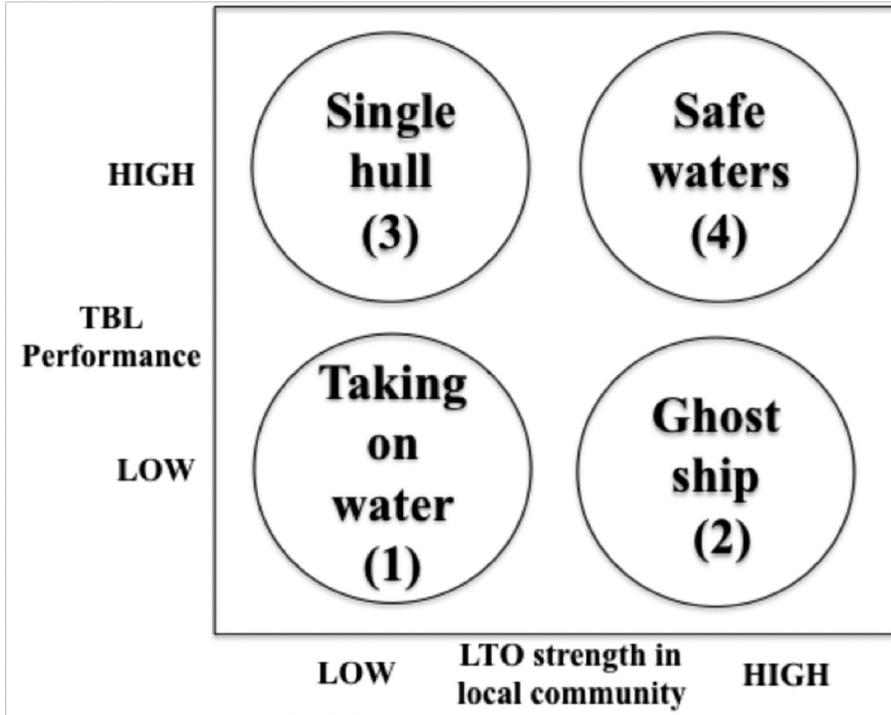
Therefore, we suggest a broader framework based on a 2 x 2 matrix showing diverse situations port managing bodies might face in terms of both TBL performance and LTO strength. Figure 1 shows the matrix and 4 potential quadrants of joint TBL/LTO strength combinations. Each quadrant is characterized by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