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Weakest link or strongest node? Comparing governance strategies for inland ports in transnational European corridors



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ABSTRACT

Inland ports are becoming more important in enhancing hinterland accessibility of deep-sea ports. Their increasing size and number can however also pose a threat to quality of life in adjacent urban regions, for spatial conflicts between port and urban functions may arise. Therefore, inland port governance strategies are needed. The aim of this paper is to reflect on the findings of an international comparison of municipal governance strategies for inland port development in four different countries along the Rhine–Alpine Corridor. Our findings reflect the difficult position of inland ports relative to urban functions within a densely populated corridor. Sufficient capacity is needed to prevent the occurrence of bottlenecks on links and in nodes, which could limit flows on other parts of the corridor. Increasing inland port capacity should however also be aligned with policy measures in urban regions, to avoid the overlapping of inland port and urban functions which could lead to mutually exclusive land-uses. This poses challenges in terms of inland port governance. We observe that cases in which the port and urban administrations open up the policy process to relevant private stakeholders and the civil society, integrated governance strategies for inland port development are more likely to emerge.

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1. Introduction

Over the last decades, global freight transportation has expanded considerably, largely resulting from globalisation processes and increasing economies of scale. These growing global volumes are putting pressure on the design and operation of the European transport network. For instance, the emergence of Asian and Latin-American producer and consumer markets on a global level impacts the spatial allocation of freight movements on the European regional level. This reallocation is resulting from differing criteria companies adhere to for port selection and routing (Monios & Wang, 2013; Wilmsmeier, Monios, & Pérez-Salas, 2014). These changing freight volumes have a direct impact on the demand for capacity and accessibility of the nodes, links and supply chains in the European transport network.

In particular, attention to inland ports is growing, both in policy (e.g. INE, 2014 and in academia (e.g. Raimbault, Jacobs, & Van Dongen, 2015; Monios & Wilmsmeier, 2012; Rodrigue, Debrie, Fremont, & Gouvernal, 2010). It is often stated that inland ports are becoming more important factors in the evolution of port systems. We define inland ports as hinterland locations with a waterway connection to a deep-sea port by

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means of a corridor (cf. Rodrigue et al., 2010). As global freight transportation is increasing, deep-sea ports have to expand themselves (which often is problematic because of local land-use constraints) and have to divert the incoming flows along transnational corridors towards inland ports, or a combination of both (Monios & Wilmsmeier, 2012; Rodrigue et al., 2010). This is particularly true in the European context of path-dependent development, where vacant space in deep-sea ports is relatively scarce and where in many cases different institutional structures overlap leading to increased bureaucracy (Van Den Berg & De Langen, 2011). Hence, attention to inland port development is growing.

At the same time, however, inland ports themselves are also facing increasing land-use constraints, complex actor constellations, institutional fragmentation, etc. (e.g. Raimbault et al., 2015; Wilmsmeier & Monios, in press). Thus, the increasing development of inland ports can also pose a threat to efficient transnational corridor development, especially when inland ports are adjacent to urban regions, as is often the case in Europe. Sufficient capacity in inland ports is needed to prevent the occurrence of bottlenecks along transnational corridors, but increasing inland port capacity should also be aligned with policy measures on the urban and regional level, to avoid competition of inland port and urban functions, which could lead to conflicts with respect to land-use, economic development and quality of life (Daamen & Vries, 2013; Wiegmans & Louw, 2011). This poses challenges for the governance of inland ports. This is especially relevant since ownership and governance structures of inland ports can vary considerably (Rodrigue

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et al., 2010), as is also the case in the context of deep-sea ports (see e.g. Worldbank, 2007).

Although inland ports are becoming more acknowledged as a research focus in the academic debate, limited attention has been paid to the conflicting port and urban functions in inland ports (Witte, Wiegmans, Van Oort, & Spit, 2014). A systematic overview of inland port governance strategies (in particular at the level of the transnational corridor) is lacking. This paper tries to fill this gap by providing an international comparison of municipal governance strategies for inland port development in four different countries along the Rhine–Alpine Corridor (Rotterdam–Genoa). This paper aims to broaden the understanding regarding the pivotal role of inland ports within the complex and overlapping hinterlands of deep-sea ports by exploring the extent to which municipal governance strategies regarding the integration of port and urban functions in inland ports are similar and/or differ between countries along a transnational corridor.

The paper is structured as follows. In the next section, a literature review on inland port development in relation to European corridor development is presented, paying particular attention to the growing importance of the spatial and institutional dimension of inland port development. This results in indicators to explore the governance strategies of inland ports along the Rhine–Alpine Corridor. Case study areas along this transnational corridor are introduced to zoom in on the most important spatial and institutional aspects of inland port development strategies. In the final section, the prospects for inland ports are discussed in the light of recent European policies on transnational corridor development.

2. Theorising on inland port development

2.1. Inland ports in relation to transnational corridor development

The gap between the growing attention to port geography (Ng et al., 2014) and the – up to now – limited attention that is paid to the spatial, economic and institutional dimensions of inland ports is surprising (Raimbault et al., 2015). Still, Rodrigue et al. (2010) and Monios and Wang (2013) provide some useful guidelines to define the scope and nature of the inland port concept. In particular, there should be a link with the handling of containers, a link with a deep-sea port by means of a corridor and some critical mass to achieve economies of scale. They also define three geographical levels: inland terminal, inland port and hinterland. However, the terminal is often in the inland port and the terminal is also often identical to the inland port level itself. Thus, there is a high degree of variation in the definitions used. This paper is mainly concerned with the pivotal role of inland ports in transnational corridors.

The starting point to explain the current state of port system evolution is the notion of port regionalisation (Notteboom & Rodrigue, 2005). Typical of port regionalisation is the reorientation of freight distribution from the deep-sea ports to favourable locations in the hinterlands. For inland ports, this implies that they might function as satellite areas to relieve the congested deep-sea port areas. When these inland ports are located within a transnational corridor, they might also benefit from a corridor's cluster advantage for bundling cargo volumes. Moreover, Wilmsmeier, Monios, and Lambert (2011) have suggested that as hinterlands of different deep-sea port areas are to an increasing extent overlapping, inland ports can potentially have an important role as active nodes in shaping the transportation chain within largely static corridors. Governance has an important role to play here, for although regionalisation is to a large extent dependent upon the preferences of individual shippers and logistics companies, inland port authorities and governments can still play an active role in trying to shape or guide the regionalisation process. The extent to which European inland ports deploy such governance strategies is explored in this paper by focussing on five different case study areas in the European inland navigation network.

In recent years, the academic attitude regarding the positioning of inland ports in the hinterland of deep-sea ports is shifting from a dependent role of inland ports relative to their maritime counterparts (Outside-In) towards a more independent positioning of inland ports, where development is driven from the inland port itself (Inside-Out). This shift can be observed in practice, as Rodrigue et al. (2010) indicate that different actors, such as inland port authorities, rail operators and logistics service providers have seized the opportunity to capture revenue and generate employment, leading possibly to an oversupply of port capacity in inland ports in the European transport network, in particular in the Rhine delta. Wilmsmeier et al. (2011) call for more strategic planning regarding the allocation of inland ports in Europe in this respect. Monios and Wilmsmeier (2012) also draw attention to the spatio-temporal development directions of inland ports in the hinterland and that the drivers of development (which in our view not only include factors, but also actors) are up to now insufficiently understood. This calls for a more integrated institutional approach regarding inland port development, which also is sensitive to the spatial and institutional structure of inland ports within transnational corridors. This is dealt with in the next paragraph.

2.2. Spatial and institutional structure of inland ports

A relatively new and under-researched part of the evolution of port systems is the spatial and institutional structure of inland ports (Ng et al., 2014). Traditionally, deep-sea port authorities deploy hinterland strategies because of the importance of inland terminals for the competitive position relative to other deep-sea ports (Van Den Berg & De Langen, 2011). Yet, at the same time these deep-sea port authorities often find themselves unable to exert a great influence in the hinterland far beyond their own perimeters (Monios & Wilmsmeier, 2013; Raimbault et al., 2015). In other words, actors in inland ports, like deep-sea port authorities, can be equally strong and powerful partners in the hinterland. In this respect, deep-sea port authorities are 'just' one of the other players in the field; they encounter institutional barriers (e.g. network collaboration of inland ports who are 'joining forces' and formal rules or regulations at the hinterland location) in influencing the directional development of inland ports. Also, deep-sea container terminal operators (such as Hutchson Whampoa through the ECT in Rotterdam) tend to increase their influence in the hinterland via inland terminals. Thus, there is a multitude of actors and institutions involved in port development. Ng, Padilha, and Pallis (2013) for instance also point at the impacts of institutions both in strengthening and in negatively affecting the position of dry ports in Latin-America, According to Monios and Wilmsmeier (2012), the relation between institutional issues and spatial development is not well understood in the context of inland ports.

In the context of deep-sea ports, in contrast, spatial and institutional characteristics are much better understood (Ng et al., 2014). Wiegmans and Louw (2011) refer to the emergence of port-city challenges, resulting from the expansion of deep-sea ports to accommodate increasing cargo volumes. At the same time, cities are expanding in former port areas by means of, for instance, residential waterfront development. As a result, port and urban actors have competing land-use claims in the same area, leading to intertwining spatial, environmental and port systems. Hence, port-city challenges emerge. Daamen and Vries (2013) further develop the idea of port development versus waterfront development. They focus their attention especially on the institutions and governance processes behind spatial projects in port cities. Witte et al. (2014) have tried to translate the concept of port-city challenges to the context of inland ports and have zoomed in on multi-level governance strategies of municipalities hosting an inland port. They found that imbalances between positive and negative externalities often occur in the context of inland ports, and that multi-level governance strategies are not easily formulated and implemented.

Raimbault et al. (2015) have added to the inland ports debate a nuance regarding the Inside-Out, Outside-In conceptualisation of

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