The main enablers of a successful synchromodal system

Business, Work

Tavasszy, Behdani & Konings (2015) explored what would be the main system changes that would create a framework that would allow the deployment of synchromodality. The challenges have been categorised in four layers, the so-called enablers:

- Transactions
- Governance arrangements
- Institutions
- Culture

Transaction enablers – contracts that allow synchronized transport

The main basic change in terms of transactions is that, when booking transport services, shippers do not fix the mode of transport. They express their demand for service based on quality, or service preference rather that the mode. When the service demand is made, the supply of services can be composed and proposed based on these preferences and the attributes of the available modes of transport. What follows is a cascade effect on all other contracts needed for realizing the services, including the second and third order services, administrative handling of the shipping, the conditions of shipping, the division of responsibilities, the contracting of insurance services etc. The main challenges for these actions can be found primarily in the need to change the business models, practices, and data managing operations and tools. Furthermore, fast developments in information systems are creating a new transaction layer for supply information such as road conditions for example, and so the value of information is estimated by the added value it can offer for services.

Governance enablers – new arrangements for co-operation between agents

The sharing of information between different actors, in order to collectively optimise services requires stronger collaboration between service providers and shippers, as opposed to the current practise where shippers simply look for low prices. Collaboration frameworks need to be created in order to render these arrangements a reality under a synchromodal service system. Given the existence of antitrust policies, service providers are not used to work together. A possible solution to this could be the interference of governments, by supporting information markets, their standardisation and the harmonisation information systems. Hence, it is clear that the integration of modalities needs new arrangements, legal as much as organizational. These new arrangements would also cause changes in legal responsibilities and liabilities. Moreover, as a synchromodality seeks to integrate the resources in a network of multi-modal chains (i. e., inland waterways, rails, and roads), it means that it aims to integrate firms with different incentives, resources, and capabilities. Failing in coordinating these differences means causing logistical problems and hindering the value of synchromodality.

Institutional enablers – from centralised to a decentralised organisation

Setbacks regarding governance arrangements include the lack of incentives to disclose and share information about contents and the absence of an agreed approach to transparency of data in global trade lanes. These shortcomings are deeply rooted in current institutions. Lately, distributed information brokerage with peer-to-peer information systems have emerged (see e. g. the issues surrounding the advent of Über). These may provide an

alternative for current centrally and publicly regulated markets and will force both public and private institutions to re-think their roles and functions. Over the longer term, an interesting paradox is appearing, which may result in a clash of cultures in the logistics sector.

Cultural enabler – Mind Shift in Transport Planning and Control

A last change that need to occur, according to Tavasszy et al. (2015) refers to the mindset of actors involved. A first shift in the mindset is related to the aspect of “ mode-free booking”, which means that shippers should not be concerned with the mode selection and this should be left entirely up to the service providers. This “ a-modal booking” is a key requirement for a Synchromodal Freight Transport System as it is deemed as a basic for the flexibility …. The second aspect is the shift from a “ mode-based” to a “ service-based” hinterland transport. This paradigm shift is not only necessary for the shippers— as the demand representatives—but also for the transport service providers on different modes. Without this mental shift, the modalities can be simply seen as competitors. Finally, there is a need to go from a (dominated) “ Predict & Prepare” hinterland operation towards a (complementary) “ Sense & Respond” mindset.

In spite of being a promising new idea, synchromodality is almost unknown in most of Europe, except for the Benelux countries. In the Netherlands several successful pilot projects exist which demonstrate its viability. The best-known is the implementation of the synchromodality network between Rotterdam, Moerdijk and Tilburg. This pilot project included a trimodal network with mode-free bookings by shippers. For each container the best

transport route has been selected and all parties worked together in optimizing the whole transport chain. In this way, a stable modal split was achieved at the Rotterdam Maasvlakte terminal with 19% truck transport, 46% ship transport and 35% rail transport. This already exceeds the port’s overall goals for 2033 which amount to 35% truck share, 45 % ship share and 20% rail share.