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CONTAINERISATION IN THE BALTIC SEA REGION: DEVELOPMENT, CHARACTERISTICS AND CONTEMPORARY ORGANISATION

Abstract. The main focus of the paper is on the container system development in the Baltic Sea Region studying cotemporary changes and organisation, as well as explaining the main driving forces of this situation.

The Baltic Sea is a transport corridor between Eastern and Western Europe. Over the last decade maritime transport in the Baltic Sea area has changed significantly. The disintegration of the Soviet Union forced Russia to start developing its own Baltic ports and terminals and to find new routes to export its oil and gas. The Baltic ports have welcomed a remarkable growth, especially in oil transportation and containerised flows.

The geographical configuration of the region naturally places it away from major global shipping lines. This situation is accentuated by the organisation of maritime regular lines, centred in Northern European ports. For this reason, the regional container network is mainly made up of feeder services.

Key words: the Baltic Sea, containerisation, ports, maritime transport.

1. INTRODUCTION

Ocean shipping is the most important mode of transport in international trade (around 90 per cent of the total). Since its introduction in the shipping industry in the 1960s, containerisation has supported the expansion of the world economy. The development of liner (containerised) shipping in the last 30 years has exceeded the growth of world trade volumes (Ducruet and Notteboom, 2012). Two factors largely explain the success of containerisation: the productivity gains in cargo handling in ports and a more gradual process which involves the refinement of the container networks of the major shipping lines (Frémont, 2007). As container ship-

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ping is characterised by a constant search for economies of scale (Merk, 2018), the introduction of mega containerships on the main international sea routes between major seaports has made it necessary to distribute containers on short-sea routes. Therefore, regional feeder services collect and deliver containers in a specific region with small and medium-sized container ships and feed mega containerships so as to avoid their calling at too many ports (Polat, Günther and Kulak, 2014).

In a new political and competitive environment, the Baltic Sea Region (BSR) is today completing its full European integration. After innumerable and consequent political and economic changes, this space has recovered its vocation of interface (Escach and Serry, 2015). In the region, transport and logistics sectors are omnipresent economic challenges. The ports of the Baltic Sea Region handled in 2016 around 8.4% of the world total. Even if, as elsewhere in the European Union (EU), road transport is very widespread, it is followed by short sea shipping (SSS) distance. In the BSR, SSS can be split into two segments. On the one hand, Roro transport is one of the specificities of the Baltic area. On the other, feeder containerised services have quickly developed. Feeder services connect transshipment hubs to smaller ports and vice versa. These services can be arranged on a direct hub port to feeder port or can follow a line bundling set-up with several feeder ports of call per vessel rotation. They tend to use regular containerships, but of smaller sizes (often aptly called feeder ships) (Rodrigue, 2017).

Thus Baltic ports as nodes of a regional maritime network are integrated into a larger system. Indeed, the port development and the evolution of maritime traffic are symptomatic of economic and territorial mutations.

Although the maritime traffic in the area is relatively diversified, the paper will focus on containerised flows. It aims to provide an analysis and an empirical study of the container network in the region. This study is based on a literature review and mainly on the analysis of a database developed by the author. This database contains structured, comparable data (port facilities, traffic statistics, etc.) from 1989 onwards for approximately 115 Baltic ports. It also includes all regular lines in 2013 and 2015, and such details as frequencies, capacities, and operators obtained using AIS data, as well as some from a database on ships.

The paper proceeds as follows. Section 1 covers general characteristics of maritime transportation in the BSR. Section 2 focuses on the feeder market, while the section 3 analyses the regional port system.

2. GENERAL CHARACTERISTICS OF THE BALTIC REGULAR LINE TRAFFIC

The Baltic Sea is very transport-intense. Maritime traffic is relatively diffused throughout the whole of the Baltic Sea, despite a distinction of maritime and port activities within the Baltic Sea, mostly between southern and northern shores. Baltic Sea traffic growth is particularly significant in the field of containerisation (Serry and Transnav, 2017).

2.1. From shared growth to more competition?

Since the mid-1990s flows in the ports of the Baltic Sea have been grown quite constantly which (inevitably) demanded a necessary modernisation of harbour facilities and their extensions. That dynamism has been, with a few exceptions (Ventspils), closely shared by the whole BSR (Fig. 1). Thus the maritime traffic almost doubled between 1997 and 2018, from 420 million tons (Mt) to nearly 800 Mt while during the same period, the growth of world maritime traffic increased by nearly 65%.

This development can be attributed to three factors:

- Global economic growth has led to an increase in the volume of goods carried by sea;
- The deep geopolitical changes in the region have (re)opened the eastern shore to the market economy;
- The vital needs of port capacity for Russia to export raw materials and import manufactured products.

Indeed after the collapse of the USSR the main Baltic ports were outside the Russian Federation (Pavuk, 2017). The BSR has an interesting geographical position within the Eurasian transport system, connecting Russia with the European markets (Kabashkin, 2012).



Fig. 1. Evolution and traffic in 2017 of the top 20 Baltic Sea ports

Source: own work based on European Sea Ports Organisation, Eurostat, Port Authorities.