

Performance in Scandinavian shortsea shipping links

By: Linda Styhre, SSPA Sweden AB, Arvid Guthed, Chalmers tekniska högskola

Kent Lumsden, Chalmers tekniska högskola

Within the geographic area constituted by the Scandinavian countries are there a multitude of ferry-services and RoRo-lines supporting the commercial and societal needs of transportation and logistics. The increased international trade and a continued trend towards concentration of production and consumption centres imply raised demands on these transport services that need to correspond to the high expectations set by commercial interests. This abstract springs from the project “Analysis of performance in Scandinavian shortsea shipping links” that has the aim of strengthening the role of waterborne goods transportation within the geographic region represented by the Nordic transport political network, NTN.

RoRo-traffic is an important component in Scandinavia’s international transport network where the goods can be shifted from vessels to road/rail to create an efficient chain from supplier to customer. Ferry lines with short transit time and high frequency often fulfil the same function as a bridge, so called bridge substitutes, also plays an important role in this network. This illustrates the vital correlation between shortsea shipping and road transportation, a dependency that often is highlighted in the discussions concerning the development of efficient transport systems. The above mentioned sea links supports a development towards durable and cost efficient transportation on a macro level by enabling a shift of volumes from heavily congested road/rail links to sea. It is also necessary that the sea links provide a cost efficient solution for producers and consumers on a micro level.

The project “Analysis of performance in Scandinavian shortsea shipping links” has a focus on vessel resource utilisation, and is based on a hypothesis that supports the relations between:

- Vessel resource utilisation / distance
- Vessel resource utilisation / transit time
- Vessel resource utilisation / frequency

When the distance and transit time increase and the frequency decreases, the vessel resource utilisation is in general enhanced. The study will increase the knowledge of the traded-off between resource utilisation and the other parameters in order to streamline the shipping companies’ strategies. The purpose of the study is to make shortsea shipping more competitive towards other modes of transportation and to increase the understanding of the function of a “bridge substitute”. The hypothesis is supported by a pre-study from 2001.