



Costs and performance of European rail freight transportation

Submitted by: NEA Transport research and training

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1 Introduction

The aim of the report "*Costs and performance of European rail freight transportation*" is to present a stable indicator of cost components on the main European rail freight corridors. This study will be updated on a regular basis to compare the development of relevant price levels influencing rail freight transportation costs.

NEA Transport research and training, in cooperation with **Railrelease** and **Railistics**, calculated the rail freight transportation costs and its developments in the market. These figures can be important indicators, for example for the development of competitive positioning strategies of companies. The costs and prices may vary from operator to operator and for specific trains to a certain degree. However, the values represent the average costs for the respective components over all trains running on the respective corridors.

The main focus of the report is to show *the development of rail freight costs and the effects on the total rail transport costs over time* rather than concentrating on individual cost elements in depth.

The rail freight transportation costs in this report consist of five main components, namely:

- Locomotive costs
- Wagon costs
- Infrastructure (access) costs
- Energy costs
- Labour costs

The three European corridors chosen are:

- Corridor 1 Rotterdam – Busto Arsizio
- Corridor 2 Antwerp North – Vienna
- Corridor 3 Cologne – Lyon

The first corridor Rotterdam – Busto Arsizio is widely known as a prime example of liberalisation of rail freight traffic in Europe. The competition of different railway undertakings on this route including parts of it is fully operational. Significant growth of tonnages can be observed since the beginning of the century and is very likely to continue in the future. Since the corridor plays an important role on the delivery of overseas containers from and to Switzerland and Italy, the reference train has been configured according to a typical intermodal container train.

The second corridor Antwerp – Vienna has been chosen with respect to the characteristic role of Antwerp as a major port for liquid bulk. The transshipment of chemicals and refinery products from and to Eastern Europe is one of the core activities of the main shunting yard in Vienna. It is therefore obvious to choose a liquid bulk composition to calculate the reference train.

The third and last corridor Cologne – Lyon was chosen with respect to the potential of the French market driven by the ongoing liberalisation of the French

rail freight market. Currently, regular freight trains with departure frequencies a couple of times a day connect the French shunting yards Woippy (Metz) and Sibelin (Lyon) with German freight hubs Cologne-Gremberg and Mannheim as well as Kornwestheim (Stuttgart). Since the current trains consist mainly of wagon groups and single wagons, the reference train has been configured as a mixed freight train.

A detailed description of the basic specifications and assumptions is given in chapter 2. Chapter 3 presents the comparison of the level of costs for the three corridors. The costs developments for the years 2005 to 2007 will be given in the last chapter.

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