

INTERFERENCES BY THE APPLICATION FOR THE CHARGES BY USE OF RAIL INFRASTRUCTURE IN EUROPEAN INTEROPERABILITY

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The European Union adopted a Directives destined to convert the rail sector in a way of competitive transport, giving place to the separation of activities of administration of the infrastructure of the own activities of the exploitation. The opening of the rail transport in diet of free competition and the allocation to the administrator of rail infrastructures of the necessary functions for the provision of services regarding transport of passengers as of commodities. This remained reflected in a series of charges, in which each country created some specific rules of fixation of charges and that has given place to prices very diverse, not only economically but also to the hour to define the same, resulted of the nonexistence of a guideline detailed of how would have to fix the same. This opening, forces the rail companies to fulfill a series of legal requirements, technicians and economics to be able to operate by the European rail network. The economic requirements remained reflected in a series of charges to credit to the administrators of rail infrastructure of the countries by where circulates a rail transport. These charges are established, although the corresponding European Directive regulates them, according to the rule of the country, what gives origin to a diversity of the same.

Keywords: Railway, Freight corridor, Network statement, Variables, Transport, Administrators.

1 INTRODUCTION

The European Union made some reforms in railway matter with the aim to open the national railway markets of transport to the international transport, in diet of free competition, facilitating the interoperability of the rail transport between European countries and guaranteeing a no discriminatory deal having like end to convert the railway in a way of competitive transport.

These reforms are under the Directives 91/440/CE (1991), 95/18/CE (1995), and 2001/14/CE (2001) of the European Parliament and the European Council. These Directives are relative to the adjudication of capacity of rail infrastructure, application of charges for his utilization and certification of the security. These reforms supposed the first step to the regulation of the European railway market when opening the market of international freight services by railway.

In 2010, the European Parliament and the Council of Europe established rules for the establishment of a European rail network for a transport, composed by international freight

corridors (Figure 1) as objective achieve services of transport of rail commodities of quality, of confidence to be able to compete with other ways of transport. The Directive 913/2010/CE (2010) was to improve the services loaned by the administrators of the infrastructure to the operators of international transport of commodities giving place to several initiatives. Those that have contributed to the creation of the concept of corridors: the first rail package, the program RTE-T, the cooperation between the States members and the deployment of the technical specifications of interoperability and of the telematics application for commodities. The European Union acts in the following main areas that correspond to this process of harmonization:

- Improve the coordination between the administrators of the infrastructure.
- Improve the conditions of access to the infrastructure.
- Guarantee the owed priority to the trains of commodities.
- Improve the inter-modality of the corridors.

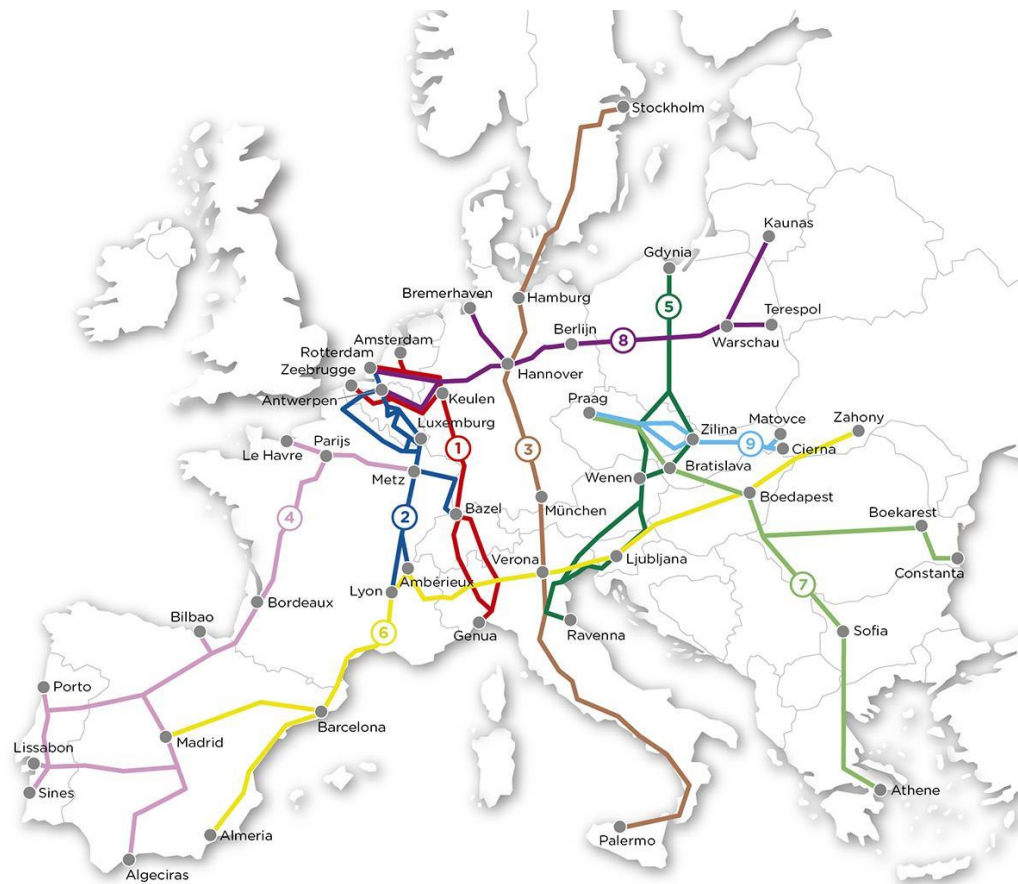


Figure 1. European rail freight corridors (Railnet Europe 2015).

Railnet Europe (RNE) was created in 2004 by initiative of a group of administrators of European railway infrastructures like a non-profit association of the administrators of infrastructures and the organisms of adjudication that devotes to facilitate the international traffic

in the European Rail Infrastructure. RNE plays a fundamental paper in the promotion of the industry harmonizing, with transparent norms and no discriminatory the international railway business occupies to simplify. RNE optimizes the international rail processes as they are the fixation/coordination of schedules to European level, the sales (included the ones of the statements of the network), the management of the traffic. It treats of a platform of coordination for the railway corridors.

These corridors run by diverse countries, which have its own administrator of rail infrastructures, exerting a main paper like invigorating of the rail sector, doing of the railway the half of transport by excellence and facilitating the access to the infrastructure in conditions of equality. These countries have the obligation to elaborate the Network Statement. It is a document that presents the characteristics of the infrastructure put to disposal of the railway companies and that contains information on the conditions of access to the same. It details the general rules, terms, procedures, and relative criteria to the systems of charges and adjudication of capacity, as well as the necessary information for request for railway companies in application of capacity of infrastructure.

The adjudication of capacity of infrastructure makes by part of the administrator of rail infrastructures of those time bands, defined in the network statement, to the corresponding candidates with the end that a train or a rail vehicle can circulate, between two points, during a period. The adjudication of capacity comports the right of access to the infrastructure awarded and the corresponding bifurcations and detours of the Network property of the administrator of rail infrastructures. The candidates receive the service of control of circulation of the train, included the signaling.

2 METHODOLOGY

The methodology employed to determine the canons and variable employed to determine the charges and variables by the rail administrators has been the following steps:

- Analysis European and each country laws.
- Study of the Network Statements of the countries to obtain the variables applied in each country.

The results of the analysis give place to the conclusions that describe in the corresponding section.

3 ANALYSIS OF THE STRUCTURE OF THE CHARGES APPLIED

The analysis of the network statements of the countries by where the trains circulated defines the parameters used to fix the charges to apply to a train. Table 1 shows the number of variables by some countries apply to obtain the charges by basic services of access and use of stations and inherent installations to them.

The variables used to determine each charge are the following (Font Torres 2016):

- Access: Type of line, kilometer-train-year, ton-year, type of train, traction.
- Train path reserve: Type of line, reserved kilometer, timetable, density of traffic.
- Traffic load: Type of line, type of train, timetable.
- Circulation load: Type of line, type of train, ton-year, timetable.
- Traction supply: Ton-train, kilometer traveled, Type of rolling stock, timetable.

- Stations and platforms used: Duration of itinerary, Station category, type of train.
- Storage tracks: Type of line, type of rolling stock, number of vehicles, length of vehicles.

Table 1. Number of variables used by some countries for the calculation of the charges.

Charges	Countries				Total Countries
	Spain (ADIF 2016)	France (SNCF 2016)	Hungary (MAV Zrt. 2015)	Italy (RFI 2015)	
Access	2	1	0	1	3
Train path reserve	4	6	1	0	3
Traffic load	3	0	0	0	1
Circulation load	1	4	3	3	4
Traction supply	1	2	1	2	4
Stations and platforms used	3	0	3	2	3
Storage tracks	3	0	1	0	2
Charges Total	7	4	5	4	4

4 CONCLUSIONS

The charges present a series of variables for his calculation depending of the country where find us. The mission of the charges would have to be stimulated to the administrators of rail infrastructures so that they optimize the utilization of these last taking into account the needs of the users or possible users of the capacity of rail infrastructure and like this schedule his business activity and the needs of the consumers and of the investors. It is evident that the investment in rail infrastructure is necessary and the systems of charges by the utilization of this must encourage the administrators of infrastructures so that they make the suitable investments that suit from the economic point of view. The administrators of infrastructures must look after that the capacity of the infrastructures is awarded so that it reflects the need to keep and improve the levels of reliability of the service. The repercussion on the capacity of infrastructure between distinct users can be different, and must reach a correct balance between the needs of the different services, as this is important to guarantee that the charges applied to the international transport do not prevent the railway satisfy the needs of the market. It is evident that the charges by the utilization of the infrastructure must be equivalent to the directly imputable cost to the exploitation of the rail service since the recovery of costs by means of canons by the utilization of infrastructures repercussions in the needs of public finance.

Nevertheless, it is convenient that the system of charges by the utilization of infrastructures allow the use of the rail network to a traffic that can pay, at least, the marginal cost that imposes by reason of the use of the rail network.

It does not exist a guideline, model of canons, neither common parameters that facilitate the calculation of the same, independently of the country that allow to obtain a more dynamic circulation by his net and a more competitive transport. It would have to make an assessment of the relation among the components and weight of the canons adopted and the operation and development of the net, identifying which of them result positive and negative to short, half and long term. Would have to characterize the definition of the concept of canon adopted by diverse countries. The homogeneity that pursues by the road of the interoperability partly loses by the fault of criteria homogeneous in the definition of canons by use of the infrastructure, arriving to a series of conclusions that allow reflationary on the consequences in the exploitation and

maintenance of the nets, and the repercussion by what to half and long term can have the decision adopted regarding development and operating capacity of the net or rail nets in each state.

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