

# 1 Track access study for the Macedonian Network

*Alain LUTZ, Project Manager*

*Laetitia VOEGELIN, Transport Planner*

The railway sector is currently in transition in Macedonia. Facing yearly deficit and a poor quality of service, the Government of Macedonia (GOM) and the Macedonian Railways (MR) have launched an important program of modernization, in accordance with the European directives in the transportation field. Thereby, important studies have been initiated in order to help the GOM and the MR-Infrastructure (MR-I) improve the performances of rail transportation, for passenger trains as for freight trains. The track access charges study, led by SYSTRA, is one of them.

The frame of this study are the European Directives (2001/14...), whose objectives are:

- To ensure an equal access to railway lines for railway operators;
- To ensure an efficient and independent supervision over the equality of such access;
- To improve and develop competitiveness in the railway transport market.

The network and traffic analysis was a preliminary step to the assessment of track access charges.

Afterwards, the approach was based on the Directive 2001/14/EC that explains the role and the duties of the infrastructure manager and the different levels of services that can be charged through a track access policy. Therefore, it precises that charges are set and collected by a charging body, generally the Infrastructure Manager, as long as it is not dependent on the railway undertakings.

The Directive defines the different levels of services to which railway undertakings are entitled on a non-discriminatory basis: the minimum access package and the track access to services facilities, the additional services, and finally the ancillary services that may be proposed by the Infrastructure Manager. Furthermore, additions or deductions can be made to reflect the objectives of Government and the Infrastructure Manager, such as scarcity, investments, environmental aspects, mark-ups, use of the averaging approach, reservation fees, performance of traffic, discounts for some activities...

Charges, that are usually function of infrastructure characteristics, traffic volume and operation and maintenance costs, have to be high enough to cover the infrastructure costs but low enough to be attractive to rail operators.

There is neither only one way to calculate track access charges, nor common levels of charges per type of traffic. European Directives and the ECMT<sup>1</sup> only give a framework of implementation through feedbacks and learnings from other countries. The range of reserve ratio<sup>2</sup> is indeed very wide, from 5% in Norway to 100% in Latvia or Estonia.

Three methods are proposed to assess track access charges in ECMT's report, "**Railway reform and charges for the use of infrastructure**"<sup>3</sup>: track access charges based on social marginal cost (CMS), track access charges based on marginal cost associated with mark-ups (CM+) and track access charges based on a level that allows covering the difference between State contribution and financial cost (CF-). For each approach, tolls can be charged according to two different structures: a simple track access charges structure (depending on trains.km and tons.km) and a binomial track access charges structure (composed of a variable part and a fixed part).

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<sup>1</sup> European Conference of Ministers of Transport

<sup>2</sup> Reserve ratio: percentage of costs covered by track access charges

<sup>3</sup> OECD Publications, 2005

The Macedonian network had been organized according to UIC's classification, which determines the fictive tonnage running on each section of the network through an analysis of the number of trains, completed by the level of use of the infrastructure (through the use of capacity).

Infrastructure costs for one year have been shared among sections according to a method that leads sections with similar characteristics incur same costs. Afterwards, cost per section has been divided per train running on this section, according to different criterias. These unit charges can be afterwards modulated, for instance according to the level of path consumption (particularly if capacity problems appear).

Track access charges for the Skopje Node have been calculated thanks to a particular method that leads to an as per contract charge (per train).

The level of costs to be covered (and the nature of these costs) determines the level of charges. This level depends on many parameters: the ability to pay of operators (according to their type of activity), the financing capacities of the Government, the global strategy of the State in the transportation field...

Implementing a charging policy is a long process that needs to be tested and adapted over time to the reality of the market.

## **2 Draft contract between the Government of Macedonia and the Macedonian Railways - Infrastructure Manager**

*Peter HAEFNER, Transport Consultant*

The Infrastructure Manager (IM) has, in most countries, only a limited influence on the level of his revenue from user charges and from State contributions. Thus, in case of financial gaps, the Infrastructure Manager is obliged to delay planned maintenance and renewal works and to adopt longer maintenance and renewal cycles. In this way he causes a general increase of infrastructure costs with negative consequences as to subsidy needs and/or the level of user charges. Corresponding fluctuations in staff requirement are a continuous dilemma.

According to EU legislation (Art. 7 of Dir 91/440 and Art 5 of Dir 01/14) the States have the responsibility to develop railway infrastructure. In this respect they can choose between two options in order to ensure sustainable funding and efficient infrastructure management : either legal regulation or conclusion of a contract with the IM. For a certain number of reasons preference should be given to the latter option.

The contract can help to reduce costs and ease or even avoid heavy fluctuations in infrastructure management (stop- and go-policy) and is therefore in the interest of both partners. It contributes to improving infrastructure management.

In order to introduce such a contract a solid legal basis has to be created which means that the existing railway law should be amended correspondingly. Such is the situation in the case of Macedonia.

The contract should have a rolling character in order to be solid and reliable. The essential elements to be contained in the contract are a pluri-annual scheme (the proposed duration in the case of Macedonia is five years) showing, for each year, the subsidy amounts to be paid by the State to the IM, as well as a scheme of performance targets which the IM has to attain each year during the contract period. Moreover it is important to include the obligation for the IM to establish a pluri-annual business plan consisting of a :

- Five-year rolling maintenance program
- Five-year rolling investment program
- Five-year rolling forecast of revenue from infrastructure charges and from other sources of the Infrastructure Manager
- Five-year rolling infrastructure dimensioning program.

A strong monitoring authority with qualified staff is required for the execution of the contract and can at the same time play the role of the arbitrator in the case of litigation. The authority must be neutral.