The calculation of direct costs for setting charges for the use of railway lines.

Track access charges for the use of railway lines have to set at the direct costs of an additional train run using the line. The paper sets out the main rules for calculating such direct costs in seven steps in accordance with Article 31(3) of Directive 2012/34/EU on a Single European Railway Area.

The direct-cost rule ensures that the infrastructure manager has no additional losses if he allows an additional train to use the network. Therefore direct-cost based charges provide for the efficient use of the network.

Direct cost based charges will not generate enough revenues to maintain the lines at steady state, which is a separate problem for which the Directive sets separate rules. Moreover, such revenues will not allow financing new infrastructure. This paper only addresses the calculation of direct costs for the purpose of setting charges.

Charges in excess of the direct costs applying so called mark ups for a particular market segment are only allowed if prior market analysis has proven that train in this market segment can bear these mark-ups, i.e. the segments is not excluded from the use of the infrastructure.

Step 0: Full costs of the infrastructure manager

Step 1: ./. Cost not related with infrastructure management

Step 2: ./. Costs not related with minimum access package

Services of the infrastructure manager to be charged at direct costs:

Handling of requests for capacity

use of railway lines

Signalling, traffic control, dispatching, communication, provision of

Information on train movement

Use of electric supply equipment

All other information required to implement or operate the service

Track access to services facilities

Step 3: ./. Costs of assets financed by grants = full costs of the minimum access package

Step 4: ./. Costs that do not vary with an additional train service

If actual costs are excessively high, efficient costs could be estimated instead of actual costs. If there is doubt about a cost element being attributable to an individual train run, the cost element cannot be included in the direct costs.

- 1. Network-wide overhead costs, including salaries and pensions;
- 2. Interest payable on capital;
- 3. Depreciation of information, communication or telecommunication equipment; depreciation that only related to time, not to usage.
- 4. Costs related to acts of God, accidents, service disruptions.
- 5. Handling requests for railway infrastructure capacity, notably the reception, the assessment and allocation of train paths

- 6. Train control including signalling, regulation, dispatching and the communication and provision of information on train movement
- 7. Use of electric supply equipment for traction current
- 8. all other information required to implement or operate the service for which capacity has been granted.

= direct costs per year for the whole network. Direct costs for the network is less than 30% of the full costs. A differentiation by types of network is not allowed.

Step 5 direct costs per train km = direct costs of step 4 / train km.

Direct costs per train km were found to be in the range of  $0.50 - 2.00 \in$  on a network wide basis.

Step 6 modulation according to type of train

Modulation is possible according to train mass, but no special reductions for passenger trains!

Step 7 averaging against fluctuations of traffic (optional)

Result: infrastructure charge [€/train\*km]