



**Economic and Social
Council**

Distr.
GENERAL

TRANS/SC.2/2004/1
7 July 2004

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Rail Transport

(Fifty-eighth session, 27-29 October 2004,
agenda item 6)

PRODUCTIVITY IN RAIL TRANSPORT

Report of the Informal Ad hoc meeting on productivity indicators in rail transport
(9 March 2004, Geneva)

I. Attendance

1. Mr. D. Niven Reed (International Union of Railways) (UIC) and Mr. M. Lupescu (UNECE TER Project Central Office) attended the meeting. The representative of the European Commission (EC) was unable to attend.

II. Mandate

2. Following the discussions at previous sessions on performance indicators for rail transport and their usefulness for international comparisons, and at the request of the Working Party on Rail Transport at its fifty-seventh session (TRANS/SC.2/200, para.17), the secretariat organized an ad hoc informal meeting in collaboration with the UIC and the TER PCO. The objective of the meeting was to identify in which way the Working Party could best contribute and continue working on the development of new indicators and data collection that might be used for future benchmarking of railway sector performance in Europe.

III. Background

3. At the meeting of the Working Party on Rail Transport in October 1999, following a request made by the Working Party at the previous meeting, the representative of the UIC presented a review of the “traditional” “productivity indicators” or ratios that had hitherto been used for rail transport. The review confirmed that these ratios depended very much on geographic and demographic factors. As a result, they were not suitable for comparing one railway with another, though they could have some use within a railway. Nevertheless, the Working Party asked the UIC to present an updated set of the figures for the following year and to search for more satisfactory indicators.

4. At the meeting of the Working Party in October 2000, the UIC, Organization for Co-operation between Railways (OSZhD) and TER again presented the “productivity indicators”. The Working Party agreed that the figures were of limited value for international comparisons and decided that they should no longer be presented on a regular basis each year. At the same time, the Working Party asked that consideration should be given to the use of qualitative indicators, and asked the secretariat to make a proposal in 2002 in cooperation with UIC, OSZhD and TER.

5. At the meeting of the Working Party in October 2002, the secretariat presented a proposal for a series of railway indicators based on a World Bank model (TRANS/SC.2/2002/15). The Working Party agreed that the member countries should be asked to provide data for these indicators for the following meeting.

6. At its meeting in October 2003, the Working Party considered the data that had been submitted. The Working Party broadly felt that the new range of indicators was useful and asked that the search for indicators that could be used for international comparisons should continue. The members of the Working Party spoke variously of the desirability of having qualitative indicators and qualitative productivity indicators. The Working Party asked the secretariat to organize an ad hoc informal meeting in collaboration with the UIC, TER, and EC with the search for such indicators as the objective, and to inform the Working Party of the result at the next session.

IV. Consideration of types of rail transport indicators

7. The informal meeting was held in Geneva on 9 March 2004 with the participation of the representatives of the TER PCO and the UIC. The meeting considered the two types of indicators that had been used so far, namely (1) the old style “productivity indicators”, and (2) the indicators based on the World Bank model. The meeting also considered a new type of indicator of the kind that had been discussed at meetings of the Working Party on Transport Trends and Economics (WP.5). It was agreed that all three types of indicators should be submitted to the Working Party for their consideration.

8. Accordingly the meeting agreed in the first place to suggest that the Working Party should consider:

- (a) asking the UIC and OSZhD to present the old style “productivity indicators” on one further occasion using indicators similar to those which had been presented in October 2000.
- (b) asking the Member States, which have not yet done so, to submit data for the indicators following the World Bank model as shown in Table 1 below.

Table 1: Quality indicators of productivity

Indicator	Measure	Best practice	
Efficient service delivery	Price (US\$ per freight ton km)	< 2 ¢	
	Price (US\$ per passenger km)		
Service quality	Average train speed (km/h)		
	Passenger trains: Suburban Local International		
	Freight trains		
	% of arrivals less than 15 min. late	95 %	
Safety	Train accidents (per million train km)		
Accessibility	Network density (route km/km ²)		
	Freight ton km /US\$ GDP (Purchasing Power Parity - PPP)		
	Rail share of rail + truck ton km		
	Rail passenger km as % of passenger km + ton km (%)		
Environment quality	Kj of energy per converted ton km		
Financial sustainability	% of costs covered from internal cash generation	> 100 USA	
Capital	Real return on total gross assets (%)		
Management	Track operated under slow orders on track and structures: route km % total km		
	km travelled per available locomotive/day		
	Ratio of average passenger tariff to average freight tariff (based on US\$ per km) (%)	> 2.0 Europe	
	Average locomotive availability (%)	90 USA	
	Average freight and passenger wagon availability (%)	> 90 USA/Europe	

9. The meeting then noted that, in the framework of the UNECE Working Party on Transport Trends and Economics (WP.5), the work on quality of service in transport had moved forward and certain conceptual and methodological issues had already been discussed. The meeting considered that the document TRANS/WP.5/2003/10 had particular relevance in the context of the discussions about qualitative indicators of performance for rail transport. In particular, the meeting focused on Table 8 in TRANS/WP.5/2003/10, and this table is reproduced as Table 2 below.

Table 2: Customer satisfaction indicators

Name of the Indicator	Definition
Travel comfort	Travel-comfort consists of: vehicle vibrations, accelerating/ decelerating-behaviour of the vehicle, noise, heating and airing, design of seats, supply of seats available, place in the vehicle-cabin, etc. Rate 1 = poor to 6 = excellent
Compliments/Complaints to passenger ratio	Positive and negative statements by 1,000 passenger journeys [number/1,000 journeys]
Image	Public transport-operator's image from the passengers' point of view. Rate 1 = poor to 6 = excellent
Information in case of delays or cancellation	Percentage of stations with real-time information in case of delays or cancellation [%]
Service-facilities	Services on board (litter-box, newspaper-service, radio-plugs, telephone, coffee-service etc), ticket-selling systems (intelligibility), telephone-information-centres, other services on the station (shops). Rate 1 = poor to 6 = excellent.
Vehicle-equipment	Illumination, ventilation, heating, air-conditioning, on board passenger-information, design of entries and exits, equipment for disabled people. Rate 1 = poor to 6 = excellent
Condition of vehicles supplied	Cleanliness, maintenance, damages on the vehicles. Measured by customer survey. Rate 1 = poor to 6 = excellent
Visibility of signs in vehicles	Measured by customer survey. Rate 1 = poor to 6 = excellent
Luggage consideration	Is there enough luggage room in vehicles? 1 = poor to 6 = excellent

10. In Table 2, customer satisfaction indicators are being suggested as potential indicators of the quality of service. The meeting felt that customer satisfaction was probably the most important single indicator of the quality of service. However, almost the only way to obtain relevant information on customer satisfaction was to carry out a survey among the transport users. The meeting was of the opinion that the use of indicators such as those listed above could contribute to a better illustration of the concept of quality of service in practice through comparable statistics.

11. Bearing in mind the fact that information for the above indicators was not available on a regular basis, the meeting agreed to suggest that the Working Party should consider the costs and benefits of collecting the statistics for the above indicators and that member countries should give information on the extent to which such information was already collected.

12. Lastly, the meeting agreed to invite the Working Party to review the three types of indicators and to give their views on the extent to which some or any of the indicators met the aspirations of the Working Party for qualitative indicators or qualitative indicators of productivity.