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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

**Working Party on Transport Trends and Economics**

(Eighteenth session, 15-16 September 2005,  
agenda item 12 (a))

**QUALITY OF TRANSPORT SERVICE**

Note by the secretariat

Following the request by the Working Party at its seventeenth session, the secretariat presents consolidated replies from member Governments on the questionnaire on quality of transport service. This questionnaire contains indicators, as presented in section 2.2 of the document TRANS/WP.5/2003/10. Individual and more detailed replies from member Governments were presented in documents TRANS/WP.5/2004/10 and Add.1. Moreover, following another decision of the Working Party, additional comments on the questionnaire received by the secretariat have been incorporated and the revised version of the questionnaire is reproduced in the attached document.

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<b>1. Legal and operational indicators</b>				
<b>Indicator</b>	<b>Definition</b>	<b>Belarus</b>	<b>Croatia</b>	<b>Hungary</b>
Degree of competition	Degree of competition between the various operators. Rate: monopoly=0, moderate competition=1, strict competition=2	Monopoly	Roads – 2 Railways - 0 Inland waterway - 1	1
Public transport passenger trips	Percentage of public-transport trips to total trips (pedestrian, bicycles, public transport, private-cars) in the observed area. [%]	77% (excluding services operated by individual entrepreneurs) 86% (including services operated by individual entrepreneurs)	-	40 % <sup>1</sup>
Normal fare [Euro]	Normal fare ( <b>Euro</b> ) for a month of public transport use	One mode - €4.27 Two modes - €5.7 Three modes - €6.65 €1 = Rbl 2,629	-	€1 <sup>2</sup> €66.7 <sup>3</sup>
Receipts from public sector for investments in infrastructure and rolling stock	Percentage of public receipts for investments in public transport infrastructure and rolling stock related to total investments [%]	64% (excluding pipelines) Investment in fixed capital in the transport sector – Rbl 717,940 million (61% in road transport)	Roads – n.a. Railways – 100% (through State budget and loans which are guaranteed by Government) Inland waterway – n.a.	100%

<sup>1/</sup> Without pedestrian and bicycles.

<sup>2/</sup> City monthly pass in Budapest for all transport modes.

<sup>3/</sup> Rail monthly pass up to 50 km.

<b>2. Safety and security indicators</b>				
<b>Indicator</b>	<b>Definition</b>	<b>Belarus</b>	<b>Croatia</b>	<b>Hungary</b>
Traffic safety	Ratio of passenger injuries by 10 <sup>6</sup> passenger km <b>[number/10<sup>6</sup> pass. km]</b>	–	Roads – 7.0 Railways – 0.05	0.31
Employee safety	Percentage of injuries by number of employees; percentage of criminal attacks on employees. [%]	–	Percentage of injuries by number of employees – 2.24 % <sup>4/</sup> Percentage of criminal attacks – not available	Non-significant
Driver training	Number of in-service training hours per total number of drivers a year <b>[training hours/total number of drivers]</b>	Driver training is not monitored	–	5 hrs/yr/capita
Security at stops and stations/freight terminals and transfer points	Measure of passengers'/users sense of security at the stops and stations/ freight terminals and transfer points. Rate <b>1=poor to 6=excellent</b>	Excellent	Roads – 3 Railways – 4 Inland waterway - 3	5 for passenger transport 4 for freight transport
Security in vehicles	Measure of passengers'/users sense of security in passenger and freight vehicles. Rate <b>1=poor to 6=excellent</b>	Average	Roads – 2 Railways – 4	5 for passenger transport 5 for freight transport
<b>3. Environmental impacts</b>				
Quality of vehicles	Number of vehicles failed in emission test per 100 tested vehicles <b>[number/100 tested vehicles]</b>	–	Roads - in 2001 60.26 in 2002 44.32 in 2003 39.78	8%
Emissions	Emissions of CO <sub>2</sub> , non-methane volatile organic compound (NMVOC) and nitrogen oxide (NO <sub>x</sub> ) per 10 <sup>6</sup> vehicle km <b>[tonnes/10<sup>6</sup> vehicle km.]</b>	–	Roads – in the year 2000: emissions of CO <sub>2</sub> - 225.14 emissions of NMVOC – 1.74 emissions of NO <sub>x</sub> – 1.79	315
Noise levels	Percentage of population exposed to road traffic noise levels <b>above 55 Ldn dB</b> ; and percentage of population exposed to rail noise above 55 LAeq dB. [%]	–	–	Measures will be completed in 2007
Land take	Land take by roads and railways as percentage of country surface. [%]	Roads – 245 km/1,000 km <sup>2</sup> . Rail - 27 km/1,000 km <sup>2</sup> .	Roads - 0.48 %	0.6%
Exposure	Exposure of urban population to daily mean SO <sub>2</sub> concentrations of more than 125 mg/m <sup>3</sup> <b>[in number of residents]</b>	–	–	Non-significant

1. Legal and operational indicators							
Indicator	Definition	Ireland			Lithuania	Poland	
Degree of competition	Degree of competition between the various operators. Rate: monopoly=0, moderate competition=1, strict competition=2	1			Roads: 2. Inland Waterways: 2. Railways: 1.	1	
Public transport passenger trips	Percentage of public-transport trips to total trips (pedestrian, bicycles, public transport, private-cars) in the observed area. [%]	Work			Roads: n.a. Railways: 1.87 per cent of the total number of passengers carried by public transport.	n.a.	
			Bus	Rail			Total
		<b>No. of Trips</b>	79,573	31,051			592,547
		<b>Mode %</b>	13	5			100
		School					
			Bus	Rail			Total
<b>No. of Trips</b>	78,017	9,155	326,000				
<b>Mode %</b>	24	3	100				
	All Trips to Work and School						
	Bus	Rail	Total				
<b>No. of Trips</b>	157,590	40,206	918,547				
<b>Mode %</b>	17	4	100				
Normal fare [Euro]	Normal fare ( <b>Euro</b> ) for a month of public transport use	-			Road: €3, €10, €12 or €- €15/month, Railways: €72/month for Vilnius – Kaunas and €69/month for Vilnius-Turmantas (both return trips).	€4.00/month	
Receipts from public sector for investments in infrastructure and rolling stock	Percentage of public receipts for investments in public transport infrastructure and rolling stock related to total investments [%]	From 1/1/2000 to 31/12/2003 investment in public transport, (rolling stock & infrastructure) as a percentage of the total investment in the economic and social infrastructure programme was 14%. From 1/1/2000 to 31/12/2003 investment in public transport, (rolling stock and infrastructure) as a percentage of investment in both roads and public transport was 35%.			There is no private investment in infrastructure. Investments in road transport €5.3 million in 2003 (18.65% of total investment). In 2003, a total of LTL 382.6 million (€10.8 million.) was used for investments, of which LTL 294.9 million (€5.4 million) or 77.1% for infrastructure modernization and development and LTL 30.7 million (€0.9 million) or 8% for rolling stock, of which LTL 23.5 million (€0.8 million) for passenger rolling stock.	29% (2002)	

<b>2. Safety and security indicators</b>				
<b>Indicator</b>	<b>Definition</b>	<b>Ireland</b>	<b>Lithuania</b>	<b>Poland</b>
Traffic safety	Ratio of passenger injuries by 10 <sup>6</sup> passenger km [ <b>number/10<sup>6</sup> pass. km</b> ]	259 / 34.7m	0.13 (2002)	1.19 (2002) Include passengers and drivers
Employee safety	Percentage of injuries by number of employees; percentage of criminal attacks on employees. [%]	310 / 5529 8 / 5529	0.26% injuries recorded in 2003 2.6% accidents at work were due to criminal actions compared to the total number of accidents at work in 2002.	n.a.
Driver training	Number of in-service training hours per total number of drivers a year [ <b>training hours/total number of drivers</b> ]	7,500 / 430	In 2003, a total of 72 in-service training hours per shunting train driver, each freight train driver, and each passenger train driver ; and a total of 36 training hours per motorcar operator, and each rail car driver.	n.a.
Security at stops and stations/freight terminals and transfer points	Measure of passengers'/users sense of security at the stops and stations/ freight terminals and transfer points. Rate <b>1=poor</b> to <b>6=excellent</b>	5 for Intercity services 4 for Suburban services	6 – In 2003, no accidents involving passengers or employees were recorded.	3 (estimate)
Security in vehicles	Measure of passengers'/users sense of security in passenger and freight vehicles. Rate <b>1=poor</b> to <b>6=excellent</b>	n.a.	6 - In 2003, no accidents involving passengers or employees on passenger- or freight rolling stock were recorded.	3 (estimate)

3. Environmental impacts									
Indicator	Definition	Ireland				Lithuania	Poland		
Quality of vehicles	Number of vehicles failed in emission test per 100 tested vehicles [number/100 tested vehicles]	Comm. Vehicles 2.05% Cars (Petrol) 3.78% Cars (Diesel) 1.36%				12/100. Locomotives or diesel trains are not tested.	n.a.		
Emissions	Emissions of CO <sub>2</sub> , non-methane volatile organic compound (NMVOC) and nitrogen oxide (NO <sub>x</sub> ) per 10 <sup>6</sup> vehicle km [tonnes/10 <sup>6</sup> vehicle km.]	2002	tonnes	10 <sup>6</sup> Vehicle km	10 <sup>6</sup> Vehicle km	tonnes/10 <sup>6</sup> Vehicle km	tonnes/10 <sup>6</sup> Vehicle km	CO <sub>2</sub> -434; NMVOC-1.9; NO <sub>x</sub> -3.7	Transport related emission: CO <sub>2</sub> – 30,121 million tonnes, NMVOC – 147 million tonnes, NO <sub>x</sub> – 291 million tonnes (data for 2001); data for vehicle km is not available
		CO <sub>2</sub> Emissions	10,868,658	48,500	38,000	224.10	286.02		
		NMVOC Emissions	28,106	48,500	38,000	0.58	0.74		
		NO <sub>x</sub> Emissions	47,253	48,500	38,000	0.97	1.24		
Noise levels	Percentage of population exposed to road traffic noise levels above 55 L <sub>dn</sub> dB; and percentage of population exposed to rail noise above 55 LA <sub>eq</sub> dB. [%]	Comprehensive noise data for Ireland is not currently available. It will be gathered as part of implementation of EU directive 2002/49/EC. Dublin City Council has conducted road noise mapping for the Dublin area which indicates that 42.5% of people are exposed to road noise above 55 dB L <sub>den</sub> . No data is currently available for exposure to rail noise.				n.a.	Approx. 42-44%; 2.6% (1998)		
Land take	Land take by roads and railways as percentage of country surface. [%]	n.a.				Land take approximately 0.9%.	2.98%		
Exposure	Exposure of urban population to daily mean SO <sub>2</sub> concentrations of more than 125 µg/m <sup>3</sup> [in number of residents]	The national EPA Annual Air Quality Monitoring: Annual Report 2002, indicates that there were no SO <sub>2</sub> monitoring locations which exceeded 125 µg/m <sup>3</sup> on a daily mean basis in 2002.				Never been.	n.a.		

**Revised questionnaire on quality of transport service**

<b>1. Legal and operational indicators</b>		
Indicator	Definition	Reply
Degree of competition	Degree of competition between the various operators. Rate: monopoly = <b>0</b> , moderate competition = <b>1</b> , strict competition = <b>2</b>	
Public transport passenger trips	Percentage of public transport trips to total trips (pedestrian, bicycles, public transport, private cars) in the observed area. [%]	
<b>Mobility of population</b>	<b>000 pass. km/person</b>	
<b>Transport situation</b>	<b>freight traffic – 000 tkm/km<sup>2</sup></b> <b>passenger traffic – 000 pass.km/km<sup>2</sup></b>	
Normal fare [Euro]	Normal fare (Euro) for a month of public transport use - <b>for urban and suburban traffic, monthly fare per average length of journey (indicate average length of journey in kilometres</b> - <b>for intercity traffic, fare for each journey per average length of journey (indicate average length of journey in kilometres)</b>	
Receipts from public sector for investments in infrastructure and rolling stock	Percentage of public receipts for investments in public transport infrastructure and rolling stock related to total investments [%]	
<b>Passenger trains speed</b>	- <b>urban and suburban trains (km/h)</b> - <b>Intercity trains (km/h)</b>	
<b>Fulfilment of contractual obligations</b>	- <b>passenger traffic on urban, suburban and intercity routes, proportion of trains running according to time table (%)</b> - <b>freight traffic – proportion of consignments delivered within scheduled time (%)</b>	

<b>2. Safety and security indicators</b>		
Indicator	Definition	Reply
Traffic safety	Ratio of passenger injuries by 10 <sup>6</sup> passenger km <b>[number/10<sup>6</sup> pass. km]</b>	
Employee safety	Percentage of injuries by number of employees; percentage of criminal attacks on employees. [%]	
Driver training	Number of in-service training hours per total number of drivers a year <b>[training hours/total number of drivers]</b>	
Security at stops and stations/ freight terminals and transfer points	Measure of passengers'/users sense of security at the stops and stations/ freight terminals and transfer points. Rate <b>1=poor to 6=excellent</b>	
Security in vehicles	Measure of passengers'/users sense of security in passenger and freight vehicles. Rate <b>1=poor to 6=excellent</b>	

<b>3. Environmental impacts</b>		
<b>Indicator</b>	<b>Definition</b>	<b>Reply</b>
Quality of vehicles	Number of vehicles failed in emission test per 100 tested vehicles <b>[number/100 tested vehicles]</b>	
Emissions	Emissions of CO <sub>2</sub> , non-methane volatile organic compound (NMVOC) and nitrogen oxide (NO <sub>x</sub> ) per 106 vehicle km <b>[tonnes/106 vehicle km.]</b>	
Noise levels	Percentage of population exposed to road traffic noise levels <del>above 55 Ldn dB</del> ; and percentage of population exposed to rail noise above 55 LAeq dB. [%]	
Land take	Land take by roads and railways as percentage of country surface. [%]	
Exposure	Exposure of urban population to daily mean SO <sub>2</sub> concentrations of more than 125 mg/m <sup>3</sup> <b>[in number of residents]</b>	
Emissions of harmful substances	- kg/1,000 pkm - kg / 1,000 tkm	
Use of energy	- freight traffic – kWh (tonnes of standard fuel)/1,000 tkm - urban and suburban passenger traffic – kWh (kg of standard fuel)/1,000 pkm - intercity passenger traffic – kWh (kg. of standard fuel)/1,000 pkm.	
Ratio of excess emissions	Ratio of excess emissions of harmful substances to total emissions of harmful substances	

Note:

- strikethrough text was proposed to be deleted from the questionnaire given the lack of relevant statistical information;
- bold text was proposed to be included in the questionnaire.

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