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## Economic Commission for Europe

### Inland Transport Committee

#### Working Party on Transport Trends and Economics

##### Thirty-first session

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Item 3 of the provisional agenda

##### Workshop and study on “Integrated Transport and Urban Development including environmental, health and quality of life perspective”

### Questionnaire\*

Transmitted by the Government of the Russian Federation

## I. Introduction and mandate

1. The present document has been prepared in line with the output/activities of cluster 2, “Transport trends and economics”, of the programme of work of the transport subprogramme for 2018–2019 (ECE/TRANS/2018/21) adopted by the Inland Transport Committee on 20 February 2018 (ECE/TRANS/274, paras. 123–126) and approved by the Economic Commission for Europe (ECE) Executive Committee.

## II. Overview of the measures being taken to create sustainable transport systems

2. The questions in this section are addressed to the State bodies responsible for urban transport policy and to the local authorities of the cities or regions in which best practices for sustainable urban transport systems have been implemented.

3. We request that replies include the name of the State, city or region, and authority responding to the questionnaire. Information can be submitted from several cities in each country, in which case it would be desirable if the largest cities were included.

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\* The present document contains the text submitted to the secretariat reproduced without any changes.



**A. Please indicate**

- (a) Country
- (b) Name of city or metropolitan area
- (c) Population of city or metropolitan area (thousands of people)
- (d) Population mobility (number of journeys per inhabitant per year)
- (e) Road network length (km)
- (f) Average share of household expenditure on transport
- (g) Motor vehicle use (motor vehicles per 1,000 inhabitants)

**B. Please indicate the principal measures being taken to create a sustainable urban transport system****1. General principles and priorities**

(a) The concept, vision and principles behind the creation of a “sustainable urban transport system”. The goals and objectives of the development of urban transport systems. The criteria used to ensure the sustainability of urban transport systems. The indicators employed to monitor the achievement of goals for the sustainable development of transport systems. Examples of “sustainability” being incorporated into laws and regulations and being implemented in practice in transport and city planning. References.

(b) The system of transport planning documents. Documents approving the goals, objectives and indicators for the effectiveness of transport systems. The principles of “sustainable transport planning”. Examples of documents in which these principles are set out. References.

(c) What methods and mechanisms are used to harmonize transport planning and urban planning? What instruments exist to prevent building developments from generating excess transport demand? Examples and references.

**2. Public transport planning and organization**

(a) Quality requirements for public transport provision. The classification and values of quality indicators. Approval documents (quality standards). Their use in planning and organizing transport systems. Liability for non-compliance (examples and references).

(b) The management of transport systems in metropolitan areas. The principles and examples of the collaborative planning, management and financing of transport systems.

(c) The principles for selecting modes of transport in the development of transport networks in metropolitan areas with due regard to the requirement to ensure their sustainability. How are different modes of public transport harmonized with one another as part of transport planning in metropolitan areas?

(d) The system for financing public transport: share of major sources for each area of activity (infrastructure development, vehicle modernization, operations). The principles on which decisions are made regarding the distribution of funding among transport companies. Legislative regulation. Examples and references.

(e) Public transport fare policy as a means of managing demand: principles for determining the range of tickets, setting fares and applying discounts. The principles for organizing a zoned fare system in metropolitan areas. The organization of the collection and distribution of fare income in metropolitan areas. The system for compensating carriers of reduced-fare passengers for shortfalls in revenue. Examples and references.

(f) What is done to implement priorities for the development and use of road infrastructure for public transport, pedestrians and non-motorized transport (including in terms of traffic management, funding and land use). Examples.

- (g) How is demand for urban public transport forecast? References to methodologies and software packages.
- (h) What measures are taken to regulate transport demand in the context of a changing urban environment? Examples and references.
- (i) What principles and methods are used to plan public transport (the route network, timetable coordination, etc.)? Examples and references.
- (j) What is done to ensure that the public transport route network complies with the requirements of sustainable urban mobility? How is the route network being modernized? Legislation and guidance documents in this area. Examples and references.
- (k) What methods are used to ensure that public transport is highly reliable and quick (separate lanes, priority at intersections, organization of pick-up/drop-off points, etc.)? What are the principles and conditions for introducing priority traffic lanes for public transport? Examples, references and photographs.
- (l) How are information and communications technologies used to improve the quality of public transport? Examples, references and photographs.
- (m) What factors are prioritized in the selection of public transport vehicles?
- (n) What measures and technical solutions are being implemented to make public transport accessible to persons with reduced mobility?
- (o) Requirements for vehicles, infrastructure, technologies, staff and information management. Examples and photographs.
- (p) How is fare policy harmonized with the public transport route network in metropolitan areas? Examples.
- (q) Organization of major multimodal passenger transport junctions. Examples, references and photographs.
- (r) How does urban public transport function and how is it developed in areas with historic buildings? Examples, references and photographs.
- (s) How is public transport traffic managed at an operational level, including in extraordinary circumstances (disruptions, road traffic accidents, etc.)?

### **3. Promoting clean transport**

- (a) What measures are being taken to promote the development of clean transport? Environmental impact requirements for vehicles and fuel used in cities. The use of alternative fuel types in urban transport. Examples and references.
- (b) What measures are being taken to develop the infrastructure for electric urban transportation (including in terms of energy saving, track facilities and overhead lines)? Examples, references and photographs.
- (c) What methods are employed in the design and construction of urban land rail transport lines for built-up urban areas and for new urban districts under construction? Examples, references and photographs.
- (d) Mechanisms and measures to encourage the use of electric cars and other electric vehicles in cities (plug-in hybrids, electric cars, electric buses and electric bicycles).

### **4. Use of information technologies**

- (a) What principles are used to create information systems for the operational management of public transport?
- (b) How are public transport service updates communicated to passengers? Examples, references and photographs.

**5. Methods for regulating road transport**

(a) What measures are being taken to prevent car traffic congestion across the road network? Examples, outcomes, references and photographs.

(b) How is parking policy implemented in cities? The principles for creating space for parking, car parks and parking payment systems. How are car parks, public transport systems and bicycle infrastructure harmonized with one another? Examples, references and photographs.

(c) What methods are employed to encourage the use of public transport? Examples and references.

(d) What is done to discourage private car use? What systems and schemes are employed to reduce traffic and private car use (congestion charging, low emission zones, etc.)? Tax policy mechanisms aimed at encouraging the use of cleaner and more efficient vehicles and modes of transport. Examples, references and photographs.

(e) How are the principles of “green freight logistics” implemented in cities? What restrictions apply to truck traffic and use? Examples, references and photographs.

**6. Organization of pedestrian and bicycle traffic**

(a) What methods are employed to ensure the safety of cyclists and pedestrians? How is the development of the necessary infrastructure planned? Examples, references and photographs.

(b) How is the development of bicycle infrastructure financed? What mechanisms and funding sources are used to that end? Are there any national programmes to support the development of cycling? Examples and references.

(c) How are bicycle hire schemes (including those for electric bicycles), their docking stations and other modern solutions for encouraging bicycle use organized? Examples, references and photographs.

**III. Examples of best practice from cities in the ECE region in terms of the sustainable development of urban transport systems**

4. Examples of cities with a detailed description, photographs and references to primary sources.

## IV. Questionnaire: statistics on urban transport systems

### Form 1: Current state of urban transport systems. Statistics.

Information should be accurate as at 1 January 2018. Where information is requested “per year”, use 2017.

<i>No.</i>	<i>General city information</i>	<i>Value</i>		
<i>1</i>	<i>2</i>	<i>3</i>		
1	Country			
2	Name of city			
3	Population of city			

  

<i>No.</i>	<i>Measures to limit car use</i>	<i>At rush hour on weekdays</i>	<i>On weekends</i>	<i>At night</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
4	Number of parking spaces, of which			
5	• Paid			
6	• Underground			
7	• Free			
8	Paid parking charges			
9	• In the city centre			
10	• In the inner suburbs			
11	• In residential areas in the outer suburbs			
12	Charge for entering the city centre (in cities with a congestion charge system)			
13	Length of the road network covered by low emissions zones (a ban on the entry of cars below a particular vehicle emission standard)			

  

<i>No.</i>	<i>Number of registered vehicles</i>	<i>Cars</i>	<i>Trucks</i>	<i>Buses</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
14	Euro 3 and below			
15	Euro 4			
16	Euro 5			
17	Euro 6			
18	Hybrids			
19	Electric vehicles			
20	Compressed natural gas vehicles			
21	All vehicles			

No.	Public transport parameters	Bicycle hire schemes	Car sharing	Taxi	Bus	Classic trolleybus	Electric bus				Tram/light rail transport	Metro	Urban electric train	Other forms (please specify)
							In-motion charging (partial automation)	Recharging at terminal stations	Overnight charging	Other types of charging (please specify)				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
22	Number of passenger journeys per year (millions)													
23	Number of vehicles (thousands)													
24	• Number of low-floor vehicles													
25	Average age of vehicles (years)													
26	Total route length (km)													
27	Length of priority traffic lanes delineated by markings													
28	Length of physically separate priority traffic lanes													
29	• Length of physically separate lanes without intersections with road traffic on the same level													
30	Integration of fare payment system (single payment card), yes/no													
31	All-in-one ticket (no charge for transfers), yes/no													

	<i>Fares (within the city limits) — please indicate the selection of tickets valid within the city limits</i>	<i>Price of a ticket (euros)</i>	<i>Budgetary subsidy per ticket, if applicable (in euros)</i>	<i>Number of tickets sold per year (units)</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
	Travel cards valid for an unlimited number of journeys:			
32	For 365 days (from any date)			
33	For 90 days (from any date)			
34	For 30 days (from any date)			
35	For 1 calendar month (from 1 to 30/31 of the month)			
36	For 7 calendar days (24 hours beginning at midnight)			
37	For 5 days (5 periods of 24 hours beginning with the first journey)			
38	For any other number of days (please provide information)			
39	For 1 calendar day (24 hours beginning at midnight or 3 a.m.)			
40	For 1 day (24 hours beginning with the first journey)			
41	For 90 minutes			
42	For 60 minutes			
43	Tickets for travel on one line only (transfers to other lines not included)			
44	Tickets for travel on one mode of transport only (transfers to other modes not included; please list all modes of transport for which a different fare applies, if any)			
45	Zoned tickets (yes/no)			
46	Tickets for students (by type)			
47	Tickets for older persons (by type)			

<i>No.</i>	<i>Financing of public transport (millions of euros per year)</i>	<i>Allocation</i>		
		<i>Vehicle modernization</i>	<i>Major infrastructure renovation</i>	<i>Operating costs</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
48	Ticket income / passenger fares			
49	Budgetary subsidies			
50	Local budget			
51	Regional budget			
52	State budget (federal or other)			
53	Special taxes			
54	Local			
55	Regional			
56	State/federal			
57	Other sources (please specify)			