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# HARMONIZATION OF SUSTAINABLE URBAN AND REGIONAL TRANSPORT STATISTICS

Note by the secretariat

This document is based on the Report of the Ad Hoc Meeting on Harmonization of Sustainable Urban and Regional Transport Statistics (TRANS/WP.6/AC.3/2003/5) that was adopted by the Working Party on Transport Statistics (WP.6) at its fifty-fifth session (9-11 June 2004) (TRANS/WP.6/147, para.20). The present document contains definitions of terms relevant for the statistical coverage of urban and regional transport.

Together with the adoption of the Report, the Working Party also decided (i) to request IWG to explore the ways on how to include these new definitions into the Glossary on Transport Statistics<sup>1</sup> and (ii) asked the UNECE in the meantime to publish those results on the web with a link from the Glossary page.

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<sup>&</sup>lt;sup>1</sup> Eurostat/ECMT/UNECE Glossary of Transport Statistics, third edition.

# SUSTAINABLE URBAN AND REGIONAL TRANSPORT STATISTICS DEFINITIONS

# I. INFRASTRUCTURE

#### Urban area

Area within the administrative boundary or a set of administrative boundaries of a core city (settlement).

Urban area may be classified by size according to number of inhabitants: 10 000 to 49 999 – small 50 000 to 249 000 – medium 250 000 or more – large.

#### Suburban area

Area within an administrative boundary and connected to an urban area.

#### Urban road

A road within an urban area.

# Suburban road

A road within a suburban area.

# **Public transport route**

Terminal-to-terminal connection according to published timetables.

# Tramway (GTS<sup>2</sup> B.I-09.)

Line of communication made up by a pair of rails designed for use by trams (street cars).

This includes both tramway laid down on the road used by other road motor vehicles as well as tramway running separately from the road.

<sup>&</sup>lt;sup>2</sup> Eurostat/ECMT/UNECE Glossary of Transport Statistics, third edition.

# Metro track (GTS modified A.I-02. and A.I-05.)

An electric railway track for the transport of passengers with the capacity for a heavy volume of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signalling to allow a high frequency of trains, and high platform load. Metros are also characterized by frequent stations, normally meaning a distance of 700-1,200 m between the stations.

"High speed" refers to the comparison with trams and light rail, and means here approximately 30-40 km/h on shorter distances, 40-70 km/h on longer distances.

Also known as "subway", "metropolitan railway" or "underground".

# Light rail track (GTS modified A.I-03. and A.I-05.)

A railway track for the transport of passengers that often uses electrically powered rail-borne cars operating singly or in short trains on fixed duo-rail lines. Stations/stops generally have a distance between them of less than 1,200 m.

In comparison to metros, light rail is more lightly constructed, is designed for lower traffic volumes and usually travels at lower speeds.

It is sometimes difficult to make a precise distinction between light rail and trams; trams are generally not separated from road traffic, whereas light rail may be separated from other systems.

# Cycle lane

Especially built line of communication or part of a road (or sidewalk) dedicated to mainly cycles.

Cycle lanes may be split into lanes separate from the roadway or other lanes. They are normally marked by appropriate signs.

# Parking places available

Space exclusively dedicated to the parking of a passenger car or similar.

Parking places could be divided into "restricted" and "public".

# Proximity to public transport

Proportion of urban population living within 500 metres (5-10 minutes' walk) from public transport access point

The proximity to public transport can also be measured from the working place or similar.

# II. TRANSPORT EQUIPMENT (VEHICLES)

# **Motor Coach or Bus (GTS B.II-14.)**

Passenger road motor vehicle designed to seat more than nine persons (including the driver).

Statistics also include mini-buses designed to seat more than 9 persons (including the driver).

# **Trolleybus (GTS B.II-15.)**

Passenger road vehicle designed to seat more than nine persons (including the driver), which is connected to electric conductors and which is not rail-borne.

This term covers vehicles, which are sometimes used as trolleybuses and sometimes as buses (since they have an independent motor).

# Tram (street car) (GTS B.II-16.)

Passenger road vehicle designed to seat more than nine persons (including the driver), which is connected to electric conductors or powered by diesel engine and which is rail-borne.

# Metro (railway) vehicle (GTS modified A.I-02. and A.II-01.)

A railway vehicle designed to run on a metro track.

# Lightrail (railway) vehicle (GTS modified A.I-03. and A.II-01.)

A railway vehicle designed to run on a light rail track.

#### Taxi

Licensed passenger car for hire with driver without predetermined routes.

The method of hire is normally flagging down on the street, picking up at a designated taxi rank or telephoning for collection.

# Number of places in the urban public transport vehicles

The number of seats (including the driver's) and authorized standing places available in an urban public transport vehicle (coach or bus, tram, metro, light rail, etc.) when performing the service for which it is intended.

#### III. Traffic

# Daily number of departures

Daily (24 hours) departures from the terminal-to-terminal according to a timetable.

Number of the departures per working day, Saturday and Sunday/holidays.

#### Vehicle-kilometre

Unit of measurement representing the movement of a vehicle over one kilometre.

All movements are to be taken into account.

# Vehicle-kilometre in public service

Unit of measurement representing the movement of a vehicle over one kilometre in public service.

Only vehicle-kilometres open to the public and according to timetable are to be taken into account.

#### Vehicle-hour

Movement of a vehicle during one hour.

The period begins with the departure of the vehicle from the terminal and ends with the return of the vehicle to the terminal. It covers the total time of driving and operational waiting of the vehicle per period surveyed.

# Vehicle-hour in public service

Movement of a vehicle during one hour in public service.

The period begins with the departure of the vehicle from the station to start the transport service and ends with the return of the vehicle to the station after terminating the transport service. It covers the total time of driving and operational waiting of the vehicle per period surveyed. The period of preparing the vehicle before its departure and the period of its standstill after its arrival at the station are not counted as period of vehicle operation.

#### Maximum number of vehicles in service

Maximum number (peak) of vehicles in service during a day (24 hours).

# Seat-/Standing place-kilometre offered

Unit of measure representing the movement of one seat/authorized standing place available in an urban public transport vehicle when performing the service for which it is primarily intended over one kilometre.

The distance to be considered is the distance actually run.

# IV. Transport

#### **Urban transport**

Any movements of goods and/or passengers in an urban area.

# Urban public transport

Any movements of passengers in public transport in an urban area.

# Suburban transport

Any movements of goods and/or passengers in a suburban area.

# Suburban public transport

Any movements of passengers in public transport in a suburban area.

# Passengers in urban or suburban public transport

Any person, excluding members of the staff, who makes a journey by urban or suburban public transport.

# Passenger journey (GTS A.V-12 modified)

The combination between the place of embarkation and the place of disembarkation of the passengers conveyed by urban or suburban transport whichever itinerary is followed on the transport network.

# Place of embarkation (GTS A.V-13 modified)

The place in which a passenger boards the transport vehicle to be conveyed by it.

A passenger transfer from one vehicle directly to another one of the same kind, regardless of the undertaking, is not regarded as disembarkation / embarkation.

Whenever during the transfer another mode of transport is used, this is to be regarded as disembarkation from a vehicle followed by a subsequent embarkation on another vehicle.

# Place of disembarkation (GTS A.V-14 modified)

The place in which a passenger leaves the transport vehicle after being conveyed by it.

A passenger transfer from one vehicle directly to another one of the same kind, regardless of the undertaking, is not regarded as disembarkation / embarkation.

Whenever during the transfer another mode of transport is used, this is to be regarded as disembarkation from a vehicle followed by a subsequent embarkation on another vehicle.

#### Urban or suburban public passenger- kilometre

Unit of measure representing the transport of one passenger by urban or suburban public transport over a distance of one kilometre.

The distance to be taken into consideration should be the distance actually run by the passenger on the concerned network. If it is not available, then the distance charged or estimated should be taken into account.

# V. Urban Transport Accidents

# Urban injury accident (Draft rail accident glossary VII.-02 modified)

Any urban serious injury accident or urban minor injury accident.

# Urban serious injury accident (Draft rail accident glossary VII.-02 and GTS B.VII.-01 modified)

Any accident involving at least one urban transport vehicle in motion on a network open to the public, resulting in at least one killed or seriously injured person.

For railborne transport the following are included: collisions, derailments, accidents involving level-crossing or with road vehicles, fires in rolling stock and accidents to persons caused by rolling stock in motion as well as other accidents, even when intentionally caused.

The release of dangerous goods may be involved. Accidents in workshops, warehouses and depots are excluded.

For road transport the following are included: collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles and with one road vehicle alone. Included are collisions between road and rail vehicles. Multi-vehicle collisions are counted as only one accident provided that any successive collisions happen at very short intervals. Injury accident excludes accidents incurring only material damage.

# Urban minor injury accident (Draft rail accident glossary VII.-03 and GTS B.VII.-01 modified)

Any accident involving at least one urban transport vehicle in motion on a network open to the public, resulting in at least one slightly injured person, but no seriously injured or killed person.

For railborne transport the following are included: collisions, derailments, accidents involving level-crossing or with road vehicles, fires in rolling stock and accidents to persons caused by rolling stock in motion as well as other accidents, even when intentionally caused.

The release of dangerous goods may be involved. Accidents in workshops, warehouses and depots are excluded.

For road transport the following are included: collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles and with one road vehicle alone. Included are collisions between road and rail vehicles. Multi-vehicle collisions are counted as only one accident provided that any successive collisions happen at very short intervals. Injury accident excludes accidents incurring only material damage.

# Casualty (Draft rail accident glossary VII.-06 modified)

Any person killed or injured as a result of an urban injury accident.

# Person killed (Draft rail accident glossary VII.-07 modified)

Any person killed immediately or dying within 30 days as a result of an urban injury accident.

# Person injured (Draft rail accident glossary VII.-08 modified)

Any person not killed, but who sustained an injury as a result of an urban injury accident, and who needed medical treatment.

# Person seriously injured (Draft rail accident glossary VII.-09 modified)

Any person not killed, but who sustained an injury as a result of an urban injury accident, and who was hospitalized for more than 24 hours.

# Person slightly injured (Draft rail accident glossary VII.-10 modified)

Any person injured as a result of an urban injury accident, excluding persons seriously injured.

#### VI. Environmental Indicators

#### Air quality in urban areas

Percentage of the population exposed to excedances of next air quality standards: Winter Smog: Number of days sulphur dioxide  $SO_2$  concentrations exceed 125  $\mu g/m3$  Summer Smog: Number of days ozone  $O_3$  concentrations exceed 120  $\mu g/m3$ .

Number of days nitrogen dioxide NO2 concentrations exceed 200  $\mu$ g/m3 Number of days particulate matter PM10 concentrations exceed 50  $\mu$ g/m3 Concentration of lead Pb in ambient air in  $\mu$ g/m3.

# Emissions from urban transport by mode

Annual emissions in tonnes of: Carbon dioxide Nitrogen oxides Non-methane volatile organic compounds Oxides of sulphur from urban transport by mode. Can be calculated by model e.g. COPERT.

# Proportion of population exposed to noise

Proportion of population exposed to noise generated by transport greater than 55 dB during daytime and 45 dB during night time.

# Land-take for transport infrastructure by mode

Area used for transport infrastructure.

Including supporting infrastructure, to be defined according to the mode of transport.