



# Glossary for transport statistics

Document prepared by the  
Intersecretariat Working  
Group on Transport Statistics

**Third edition**

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## INTRODUCTION

The *Glossary for Transport Statistics* was published for the first time in 1994 with the purpose of assisting member countries during the collection of data on transport made by the UNECE, ECMT and Eurostat through the Common Questionnaire.

The present third edition is the result of the valuable cooperation between the three organizations, that - through the action of the Intersecretariat Working Group - put a constant effort into meeting the need to harmonize transport statistics at the international level. The *Glossary* now comprises 533 definitions and represents a point of reference for all those involved in transport statistics. By following the guidance expressed in these definitions, a considerable contribution will be given to the improvement in quality of data and their comparability.

The completely revised Rail chapter is the fruit of a complex process of research on the present rail market situation and a long run of discussions among experts. The Maritime chapter has also been completely revised and remarkably enlarged. All revisions take into account the more recent European legal acts in each specific domain as well as definitions in use within related international organizations (such as the International Union of Railways and the International Maritime Organization, among others). A completely new section about road safety, as well as four new items concerning transport equipment, has been added to the Road chapter. The English, French and Russian versions will possibly be followed by all the other languages of the European Union.

Work will continue in the context of IWG.Trans on terminology related to rail accidents statistics, waterway and pipeline transport statistics, as well as statistics on the environmental impact of transport, for possible inclusion in future editions of the *Glossary*. The *Glossary for Transport Statistics*, third edition, will be available on the Internet at the three organizations home pages (see below).

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### Notice

The explanatory notes in italics, given in some cases below the definitions, are intended to assist countries in filling in questionnaires and are not part of the definitions themselves.

**A**

**RAILWAY TRANSPORT**

Metro and light rail transport are excluded, unless otherwise specified.  
Trams are included under the road chapter.

## **A.I. INFRASTRUCTURE**

### **A.I-01. Railway**

Line of communication made up by rail exclusively for the use of railway vehicles.

*Line of communication is part of space equipped for the execution of transport.*

### **A.I-02. Metro**

An electric railway for the transport of passengers with the capacity for a heavy volume of traffic and characterised 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 characterised 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”.*

### **A.I-03. Light rail**

A railway 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.*

### **A.I-04. Railway network**

All railways in a given area.

*This does not include stretches of road or water even if rolling stock should be conveyed over such routes, e.g. by wagon-carrying trailers or ferries. Lines solely used for turistic purposes are excluded as are railways constructed solely to serve mines, forests or other industrial or agricultural undertakings and which are not open to public traffic.*

### **A.I-05. Track**

A pair of rails over which railway vehicles can run.

### **A.I-06. Track gauge**

Distance between a pair of rails measured between the inside edges of the rail heads.

The following track gauges are in use:

Standard gauge:	1.435 m
Large gauge:	1.524 m (example Finland)
	1.600 m (example Ireland)
	1.668 m (example Portugal)
Narrow gauge:	0.60 m, 0.70 m, 0.75 m, 0.76 m, 0.785 m, 0.90 m, 1.00 m.

*“Large gauge” is sometimes referred to as “broad gauge”.*

### **A.I-07. Rail loading gauge**

The profile through which a railway vehicle and its loads must pass, taking into account tunnels and track side obstacles.

*There are 3 international gauges, agreed by UIC:*

*A GAUGE:*

*Total height 3.85 m above the rail and 1.28 m on either side of the track axle.*

*B GAUGE:*

*Total height 4.08 m above the rail and 1.28 m on either side of the track axle.*

*C GAUGE:*

*Total height 4.65 m above the rail and 1.45 m on either side of the track axle.*

*Another gauge of particular significance is the B+ GAUGE, for which the total height is 4.18 m above the rail and 1.36 m on either side of the track axle.*

*More generally, there are many other gauges recognised by rail networks.*

### **A.I-08. Running track**

A track providing end-to-end line continuity designed for trains between stations or places indicated in tariffs as independent points of departure or arrival for the conveyance of passengers or goods.

### **A.I-09. Electrified track**

Track provided with an overhead trolley wire or with conductor rail to permit electric traction.

### **A.I-10. Sidings**

Tracks branching off running tracks.

*The length of sidings is included in the length of tracks if the sidings managed by the infrastructure manager, private sidings being excluded.*

### **A.I-11. Private siding**

Track or set of tracks which are not managed by the infrastructure manager but are linked up with the track of an infrastructure manager so that

a) Railway undertakings or supportive functions can perform necessary activities.

b) Industrial, commercial or port, etc. establishment or group of establishments can be served by rail without transshipment.



**A.I-12. Line**

One or more adjacent running tracks forming a route between two points. Where a section of network comprises two or more lines running alongside one another, there are as many lines as routes to which tracks are allotted exclusively.

**A.I-13. Dedicated high speed line**

A line specially built to allow traffic at speeds generally equal to or greater than 250 km/h for the main segments.

*High speed lines may include connecting lines, in particular junctions with town centre stations located on them, on which speeds may take account of local conditions.*

**A.I-14. Upgraded high speed line**

A conventional line specially upgraded to allow traffic at speeds of the order of 200 km/h for the main segments.

*They include specially upgraded high speed lines which have special features as a result of topographical, relief or town-planning constraints, on which the speed must be adapted for each case.*

**A.I-15. Length of lines operated**

The total length of line operated for passenger transport, goods transport, or for both.

*When a line is operated simultaneously by several railway bodies it will be counted only once.*

**A.I-16. Electrified line**

Line with one or more electrified running tracks.

*Sections of lines adjacent to stations that are electrified only to permit shunting and not electrified as far as the next stations are to be counted as non-electrified lines.*

**A.I-17. Types of electric power**

The following types of electric current are in use:

-- AC	25 000 Volts, 50 Hz
	15 000 Volts, 16 $\frac{2}{3}$ Hz
-- DC	3 000 Volts
	1 500 Volts
	750 Volts
	660 Volts
	630 Volts

**A.I-18. Maximum operating speed**

The highest speed allowed on commercial service taking into account technical characteristics of the infrastructure.

## **A.II. TRANSPORT EQUIPMENT (VEHICLE)**

### **A.II-01. Railway vehicle**

Mobile equipment running exclusively on rails, moving either under its own power (tractive vehicles) or hauled by another vehicle (coaches, railcar trailers, vans and wagons).

*The following vehicles are included in the statistics for a railway body:*

- a) All railway vehicles belonging to the railway body and hired by it and actually at its disposal, including those under or waiting for repair, or stored in working or non working-order, and foreign vehicles at the disposal of the body and vehicles of the body temporarily engaged in the normal course of running abroad.*
- b) Private owners' wagons, i.e. those not belonging to the railway body but authorized to run for it under specified conditions, together with wagons hired out by the railway body to third parties and being operated as private owners' wagons.*

*Statistics for a railway body exclude vehicles not at its disposal, i.e.*

- a) Foreign vehicles or vehicles not belonging to the railway body circulating on the railway network.*
- b) Vehicles which are on hire to, or otherwise at the disposal of, other railway bodies.*
- c) Vehicles reserved exclusively for service transport, or intended for sale, braking-up or condemning.*

### **A.II-02. High speed railway vehicle**

A railway vehicle designed to travel at a cruising speed of at least 250 km/h on dedicated high speed lines.

*On some segments the cruising speed may be lower, according to the local conditions.*

### **A.II-03. High speed tilting railway vehicle**

A railway vehicle with a tilting system designed to have a cruising speed of the order of 200 km/h or above on upgraded high speed lines.

*On some segments the cruising speed may be lower, according to the local conditions.*

### **A.II-04. Conventional high speed railway vehicle**

Any railway vehicle not specially designed to run on dedicated or upgraded high speed lines but still being able to reach a maximum cruising speed of approximately 200 km/h

**A.II-05. Trainset**

Indivisible block of railcar(s) and railcar trailer(s) or locomotive(s) and passenger railway vehicle(s).

*Included are trainsets that are technically divisible but are normally kept in the same configuration.*

*A trainset could be coupled to another one.*

*Sometimes traction may be distributed throughout the trainset.*

**A.II-06. Tractive vehicle**

A vehicle equipped with prime mover and motor, or with motor only, intended solely for hauling other vehicles (a "locomotive") or for both hauling other vehicles and for the carriage of passengers and/or goods (a "railcar").

**A.II-07. Locomotive**

Tractive railway vehicle with a power of 110 kW and above at the draw hook equipped with prime mover and motor or with motor only used for hauling railway vehicles.

*Light rail motor tractors are excluded.*

**A.II-08. Light rail motor tractor**

Tractive railway vehicle with a power of less than 110 kW at the draw hook.

*Normally used for shunting or for work trains and short-distance or low-tonnage terminal services.*

**A.II-09. Steam locomotive**

Locomotive, whether cylinder or turbine driven, in which the source of power is steam irrespective of the type of fuel used.

**A.II-10. Electric locomotive**

Locomotive with one or more electric motors, deriving current primarily from overhead wires or conductor rails or from accumulators carried on the locomotive.

*A locomotive so equipped which has also an engine (diesel or other) to supply current to the electric motor when it cannot be obtained from an overhead wire or from a conductor rail is classed as an electric locomotive.*

**A.II-11. Diesel locomotive**

Locomotive, the main source of power of which is a diesel engine, irrespective of the type of transmission installed.

*However, diesel-electric locomotives equipped to derive power from an overhead wire or from a conductor rail are classed as electric locomotives.*

### **A.II-12. Railcar**

Tractive railway vehicle with motor constructed for the conveyance of passengers or goods by rail. The definition of the various categories of locomotives (electric, diesel) apply, mutatis mutandis, to railcars.

*A block composed of railcars and railcar trailers can be referred to as:  
"multiple units" if it is modular  
"trainset" if it is fixed.*

*In motor vehicle statistics, each railcar in an indivisible set is counted separately; in statistics of passenger vehicles and goods vehicles, each body fitted to carry passengers or goods is counted as a unit.*

### **A.II-13. Passenger railway vehicle**

Railway vehicle for the conveyance of passengers, even if it comprises one or more compartments or spaces specially reserved for luggage, parcels, mail, etc.

*These vehicles include special vehicles such as sleeping cars, saloon cars, dining cars and ambulance cars. Each separate vehicle of an indivisible set for the conveyance of passengers is counted as a passenger railway vehicle. Included are railcars if they are designed for passenger transport.*

### **A.II-14. Railcar trailer**

Non-tractive passenger railway vehicle coupled to one or more railcars.

*Vehicles for the transport of goods, even when pulled by a railcar, are referred to as wagons.*

### **A.II-15. Coach**

Passenger railway vehicle other than a railcar or a railcar trailer.

### **A.II-16. Number of seats and berths**

The number of seats and berths available in a passenger vehicle when performing the service for which it is intended.

*Seats in dining coaches and buffet compartments places are excluded.*

### **A.II-17. Number of standing places**

The number of authorized standing places available in a passenger vehicle when performing the service for which it is intended.

### **A.II-18. Van**

Non-tractive railway vehicle forming part of a passenger or goods train and used by the train crew as well as, if need be, for the conveyance of luggage, parcels, bicycles, etc.

*Vehicles possessing one or more passenger compartments must not be counted as vans but as passenger railway vehicles. Mail vans, belonging to railway bodies, are included under vans when they do not have a passenger compartment.*

**A.II-19. Wagon**

Railway vehicle normally intended for the transport of goods.

*Railcars and railcar trailers fitted only for the conveyance of goods are included.*

**A.II-20. Railway body-owned wagon**

Any wagon belonging to a railway body.

*Excluded are privately-owned wagons.*

**A.II-21. Privately-owned wagon**

Wagon not belonging to a railway body, but at its disposal and authorized to run for it under specified conditions, or wagon hired out by a railway body to third parties.

**A.II-22. Covered wagon**

Wagon characterized by its closed construction (solid sides all the way up and roof) and by the safety it provides for the goods conveyed in it (possibility of padlocking and sealing).

*Wagons with opening roof as well as insulated, heated and refrigerated are included.*

**A.II-23. Insulated wagon**

Covered wagon of which the body is built with insulating walls, doors, floor and roof, by which the heat exchanges between the inside and outside of the body can be so limited that the overall coefficient of heat transfer (K coefficient), is such that the equipment is assignable to one or other of the following two categories:

$I_N = \text{Normally insulated equipment}$  - characterized by a K coefficient equal to or less than  $0.7 \text{ W/m}^2 \text{ }^\circ\text{C}$

$I_R = \text{Heavily insulated equipment}$  - characterized by a K coefficient equal to or less than  $0.4 \text{ W/m}^2 \text{ }^\circ\text{C}$

**A.II-24. Refrigerated wagon**

Insulated wagon using a source of cold (natural ice, with or without the addition of salt; eutectic plates; dry ice, with or without sublimation control; liquefied gases, with or without evaporation control; etc.) other than a mechanical or "absorption" unit.

*Such a wagon is capable, with a mean outside temperature of  $+ 30^\circ \text{ C}$ , of lowering the temperature inside the empty body to, and thereafter maintaining it :*

- at  $+ 7^\circ \text{ C}$  maximum in the case of class A;
  - at  $-10^\circ \text{ C}$  maximum in the case of class B;
  - at  $-20^\circ \text{ C}$  maximum in the case of class C; and
  - at  $0^\circ \text{ C}$  maximum in the case of class D,
- with the aid of appropriate refrigerants and fittings.*

**A.II-25. Mechanically refrigerated wagon**

Insulated wagon either fitted with its own refrigerating appliance, or served jointly with other units of transport equipment by such an appliance (mechanical compressor, "absorption" unit, etc.).

*Such a wagon shall be capable, with a mean outside temperature of + 30° C, of lowering the temperature inside the empty body to, and thereafter maintaining it continuously in the following manner at any desired practically constant value t1 in conformity with the standards defined below for the three classes:*

Class A. *Mechanically refrigerated wagon fitted with a refrigerating appliance such that t1 may be chosen between +12° C and 0° C inclusive.*

Class B. *Mechanically refrigerated wagon fitted with a refrigerating appliance such that t1 may be chosen between +12° C and -10° C inclusive.*

Class C. *Mechanically refrigerated wagon fitted with a refrigerating appliance such that t1 may be chosen between +12° C and -20° C inclusive.*

**A.II-26. Heated wagon**

Insulated wagon fitted with a heat-producing appliance.

*Such a wagon is capable of raising the temperature inside the empty body to, and thereafter maintaining it for not less than 12 hours without renewal of supply at, a practically constant value of not less than +12° C when the mean outside temperature of the body is that indicated for the two classes:*

*Class A. Heated equipment for use when the mean outside temperature is - 10° C; and,*

*Class B. Heated equipment for use when the mean outside temperature is - 20° C.*

**A.II-27. High sided wagon**

Wagon with no roof and with rigid sides higher than 60 cm.

**A.II-28. Flat wagon**

Wagon without roof or sides, or wagon without roof but with sides not higher than 60 cm, or swing-bolster wagon, of ordinary or special type.

*Wagons designed exclusively to carry containers, swap-bodies or goods vehicles are excluded.*

**A.II-29. Tank wagon**

Wagon designed for the bulk transport of liquids or gases.

**A.II-30. Silo wagon**

Wagons for the transport in bulk of powdered products such as cement, flower, plaster, etc.

**A.II-31. Wagon for intermodal transport**

Wagon specially built or equipped for the transport of intermodal transport units (ITUs) or other goods road vehicles. (Same as F.II-10)

### **A.II-32. Carrying capacity of wagon**

The carrying capacity of wagon is the maximum authorized weight it can carry.

## **A.III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT**

### **A.III-01. Railway body**

Any private or public body acting mainly as a railway undertaking, an infrastructure manager or as an integrated company.

*A body whose main business is not related to railways should be included if it has a railway market share that is not marginal. Only the activities related to railways should be reported.*

### **A.III-02. Railway undertaking**

Any public or private undertaking which provides services for the transport of goods and/or passengers by rail.

*Included are all undertakings that dispose of/provide traction. Excluded are railway undertakings which operate entirely or mainly within industrial and similar installations, including harbours, and railways undertakings which mainly provide local tourist services, such as preserved historical steam railways.*

*Sometimes the term "railway operator" is used.*

### **A.III-03. Infrastructure manager**

Any public body or undertaking responsible in particular for establishing and maintaining railway infrastructure, as well as for operating the control and safety systems.

*An infrastructure manager can delegate to another railway body the following tasks: maintaining railway infrastructure, as well as operating the control and safety system.*

### **A.III-04. Integrated company**

Railway undertaking also being an infrastructure manager.

### **A.III-05. Employment**

Average number of persons working during the given period in a railway body, as well as persons working outside the body but who belong to it and are directly paid by it.

*Statistics should include all full-time equivalent employees performing all principal and ancillary activities of the (railway operation, renewal, new construction, road and shipping services, electricity generation, hotels and restaurants, etc.).*

### A.III-06. Types of employment

The main categories of employment being considered are:

-- General administration

*Includes central and regional management staff (e.g. finance, legal, personnel etc.) and boards of directors.*

*The management staff of specialist departments (operations and traffic, traction and rolling stock, ways and works) are excluded but are taken into account in the statistics specific to each of these services.*

-- Operations and traffic

*Station staff (excluding staff operating control and safety systems), train crews (excluding tractive units crews) and associated central and regional offices. Includes tourism and advertising.*

-- Traction and rolling stock

*Tractive units crews, workshop, inspection staff and associated central and regional offices.*

-- Way and works

*Permanent way maintenance and supervision staff (including staff operating control and safety systems).*

-- Other operations

*Passenger and goods road services, shipping services, electric power plants, hotel staff etc.*

### A.III-07. Turnover

Total amount invoiced by a railway body during the period under review. This corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the body with the exception of VAT invoiced by the unit vis-à-vis its customers. It also includes all other charges to the customers. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

*Turnover does not include sales of fixed assets. Operation subsidies received from public authorities are also excluded.*

### A.III-08. Revenues

Amounts expressed in monetary units which are entered in the accounts as credit to the railway body.

### A.III-09. Types of revenues

The main categories of revenues to be considered are:

-- Revenues from transport operations

*This category includes goods and passenger traffic revenues.*

-- Amounts received from the State or other public bodies

*This category includes compensation receipts and other subsidies.*

-- Other revenues

*This category includes revenues not related to transport activities, e.g. financial revenues etc.*



### **A.III-10. Costs**

The amount of available resources spent by a railway body in conjunction with an operation or service, or with a series of operations and services.

### **A.III-11. Types of costs**

The main categories of costs being considered are:

-- Labour costs

*Including wages and salaries of active staff, pensions, various social charges etc.*

-- Material and service costs

*Including purchase of other material and services provided by third parties but excludes energy consumption costs for traction purposes.*

-- Energy consumption costs

*Including amounts allocated for the quantity of energy for traction purposes.*

-- Taxes

-- Financial charges

-- Other costs

*Including amounts allocated to depreciation and provisions etc.*

### **A.III-12. Value added**

Gross output (sales or receipts and other income, plus inventory change) of a railway body less the value of its intermediate consumption. Value added of domestic production of all railway bodies in a country is equal to their contribution to the GDP of that country.

*It is understood that value added, in this context, is expressed in market prices.*

### **A.III-13. Tangible investment**

The outlay (purchases and own account production) of a railway body on additions of new and used capital goods (commodities) to their stocks of fixed capital assets less their net sales of similar second-hand and scrapped goods.

*The contribution of all railway bodies to the gross fixed capital formation of a country is equal to the total of their tangible investments less the balance between the purchase and sale of land.*

### **A.III-14. Investment expenditure on infrastructure**

Expenditure on new construction and extension of existing infrastructure, including reconstruction, renewal and major repairs of infrastructure.

*Infrastructure includes land, permanent way constructions, buildings, bridges and tunnels, as well as immovable fixtures, fittings and installations connected with them (signalling, telecommunications, catenaries, electricity sub-stations, etc.) as opposed to rolling stock.*

**A.III-15. Investment expenditures on rolling stock**

Expenditure for purchase of the new railway vehicles.

**A.III-16. Maintenance expenditure on infrastructure**

Expenditure for keeping infrastructure in working order.

**A.III-17. Maintenance expenditure on rolling stock**

Expenditure for keeping railway vehicles in working order.

**A.IV. TRAFFIC**

**A.IV-01. Railway traffic**

Any movement of a railway vehicle on lines operated.

*When a railway vehicle is being carried on another vehicle only the movement of the carrying vehicle (active mode) is considered.*

**A.IV-02. Shunting**

Operation of moving a rail vehicle or set of rail vehicles inside a railway station or other railway installations (depot, workshop, marshalling yard, etc.)

**A.IV-03. Railway traffic on national territory**

Any movement of railway vehicles within a national territory irrespective of the country in which these vehicles are registered.

**A.IV-04. Railway vehicle journey**

Any movement of a railway vehicle from a specified point of origin to a specified point of destination.

*A journey can be divided into a number of sections or stages.*

**A.IV-05. Train**

One or more railway vehicles hauled by one or more locomotives or railcars, or one railcar travelling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point.

*A light engine, i.e. a locomotive travelling on its own, is not considered to be a train.*

#### **A.IV-06. Types of train**

The main categories being considered are:

- Goods train: Train for the carriage of goods composed of one or more wagons and, possibly, vans moving either empty or under load.
- Passenger train: Train for the carriage of passengers composed of one or more passenger railway vehicles and, possibly, vans moving either empty or under load.
- Mixed train: Train composed of passenger railway vehicles and of wagons.
- Other trains: Trains moving solely for the requirements of the railway body, which involve no commercial traffic.

#### **A.IV-07. Train-kilometre**

Unit of measure representing the movement of a train over one kilometre.

*The distance to be covered is the distance actually run.*

#### **A.IV-08. Tractive vehicle-kilometre**

Unit of measure representing any movement of an active tractive vehicle over a distance of one kilometre.

*Tractive vehicles running light are included. Shunting movements are excluded*

#### **A.IV-09. Hauled vehicle-kilometre**

Unit of measure representing any movement of a hauled vehicle over one kilometre.

*Railcars movements are included. Shunting movements are excluded.*

#### **A.IV-10. Tonne-kilometre offered**

Unit of measure representing the movement of one tonne available in a wagon when performing services for which it is primarily intended over one kilometre.

*The distance to be considered is that actually run. Shunting and other similar movements are excluded.*

#### **A.IV-11. Wagon-kilometre**

Unit of measure representing any movement of a wagon loaded or empty over a distance of one kilometre.

*The distance to be considered is that actually run. Shunting and other similar movements are excluded. All wagon journeys are included irrespective of the ownership of the wagon.*

#### **A.IV-12. Seat-kilometre offered**

Unit of measure representing the movement of one seat available in a passenger railway vehicle when performing the services for which it is primarily intended over one kilometre.

*The distance to be considered is that actually run. Shunting and other similar movements are excluded.*

### **A.IV-13. Gross-gross tonne-kilometre hauled**

Unit of measure representing the movement over a distance of one kilometre of one tonne of railway vehicle including the weight of tractive vehicle.

*Included are weight of: tractive unit, hauled railway vehicle and its load. Passengers and their luggage are excluded. Shunting and other similar movements are excluded.*

### **A.IV-14. Gross tonne-kilometre hauled**

Unit of measure representing the movement over a distance of one kilometre of one tonne of hauled vehicles (and railcars) and contents.

*The weight of railcars is included, whereas the weight of locomotives is excluded. Passengers and their luggage are excluded. Shunting and other similar movements are excluded.*

## **A.V. TRANSPORT MEASUREMENT**

### **A.V-01. Railway transport**

Any movement of goods and/or passengers using a railway vehicle on a given railway network.

*When a railway vehicle is being carried on another rail vehicle only the movement of the carrying vehicle (active mode) is being considered.*

### **A.V-02. Types of railway transport**

The main categories are:

- Revenue earning railway transport: Transport conveyed for an outside party against payment.
- Service railway transport: Transport which the railway body performs in order to meet its internal requirements whether or not such transport produces revenues for bookkeeping purpose.

### **A.V-03. National railway transport**

Railway transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) located in the same country irrespective of the country in which the railway vehicles were registered.

*It may involve transit through a second country.*

### **A.V-04. International railway transport**

Railway transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) in two different countries.

*It may involve transit through one or more additional countries.*

**A.V-05. Rail transit**

Railway transport through a country between two places (a place of loading/embarkation and a place of unloading/disembarkation) outside that country.

*Transport operations involving loading/embarkation or unloading/disembarkation of a railway vehicle at the frontier of that country from/onto another mode of transport are not considered as transit.*

**A.V-06. Rail passenger**

Any person, excluding members of the train crew, who makes a journey by rail.

*Passengers making a journey solely by railway operated ferry or bus services are excluded.*

**A.V-07. Paying rail passenger**

Passenger holding a ticket which has been paid for.

**A.V-08. Rail passenger-kilometre**

Unit of measure representing the transport of one rail passenger by rail 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.*

**A.V-09. Purpose of rail passenger journey**

The reasons for undertaking the journey are:

- Work and education (commuting)
- Business
- Holidays (vacation)
- Other (shopping, leisure, family)

**A.V-10. Rail passenger embarked**

Passenger who boards a railway vehicle to be conveyed by it.

*A passenger transfer from one railway vehicle directly to another one, regardless of the railway 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 railway vehicle followed by a subsequent embarkation on a railway vehicle.*

### **A.V-11. Rail passenger disembarked**

A passenger alighting from a railway vehicle after having been conveyed by it.

*A passenger transfer from one railway vehicle directly to another one, regardless of the railway 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 railway vehicle followed by a subsequent embarkation on a railway vehicle.*

### **A.V-12. Rail passenger journey**

The combination between the place of embarkation and the place of disembarkation of the passengers conveyed by rail whichever itinerary is followed on the railway network.

### **A.V-13. Place of embarkation**

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

*A passenger transfer from one railway vehicle directly to another one, regardless of the railway 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 railway vehicle followed by a subsequent embarkation on a railway vehicle.*

### **A.V-14. Place of disembarkation**

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

*A passenger transfer from one railway vehicle directly to another one, regardless of the railway 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 railway vehicle followed by a subsequent embarkation on a railway vehicle.*

### **A.V-15. Goods carried by rail**

Any goods moved by rail vehicles.

*This includes all packaging and equipment, such as containers, swap-bodies or pallets as well as road goods vehicles carried by rail.*

### **A.V-16. Consignment**

Collection of goods transported under cover of the same transport document in accordance with regulations or tariffs in force where they exist.

#### **A.V-17. Types of consignment**

The main categories are:

- Full train load: Any consignment comprising one or several wagon loads transported at the same time by the same sender at the same station and forwarded with no change in train composition to the address of the same consignee at the same destination station;
- Full wagon load: Any consignment of goods for which the exclusive use of a wagon is required whether the total loading capacity is utilized or not;
- Smalls: Any consignment for which it is neither necessary nor required that a wagon be used exclusively.

#### **A.V-18. Weight**

The weight to be taken into consideration is the gross-gross weight of goods.

*This includes the total weight of the goods, all packaging, and tare-weight of the container, swap-body and pallets containing goods as well as road goods vehicles carried by rail. When this tare-weight is excluded, the weight is the gross weight.*

#### **A.V-19. Tonne-kilometre by rail**

Unit of measure of goods transport which represents the transport of one tonne of goods by rail over a distance of one kilometre.

*The distance to be covered is the distance actually run on the considered network. If it is not available, then the distance charged or estimated should be taken into account.*

#### **A.V-20. Categories of goods carried by rail**

The categories of goods carried by rail are those defined by the international nomenclature for transport statistics in use, approved by Eurostat, ECMT or UNECE.

#### **A.V-21. Dangerous goods**

The classes of dangerous goods carried by rail are those defined by the International Regulations concerning the Carriage of Dangerous Goods by Rail (RID).

#### **A.V-22. Goods loaded**

Goods placed on a railway vehicle and dispatched by rail.

*Unlike in road and inland waterway transport, transshipments from one railway vehicle directly to another and change of tractive vehicle are not regarded as unloading/loading. However, if the goods are unloaded from a railway vehicle, loaded on another mode of transport and, again loaded on another railway vehicle, this is considered as unloading from the first railway vehicle followed by loading on the second railway vehicle.*

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### **A.V-23. Goods unloaded**

Goods taken off a railway vehicle after transport by rail.

*Unlike in road and inland waterway transport, transshipments from one railway vehicle directly to another and change of tractive vehicle are not regarded as unloading/loading. However, if the goods are unloaded from a railway vehicle, loaded on another mode of transport and, again loaded on another railway vehicle, this is considered as unloading from the first railway vehicle followed by loading on the second railway vehicle.*

### **A.V-24. International goods transport by rail - loaded (outgoing)**

Goods carried by rail between a place of loading located in the reporting country and a place of unloading in another country.

*Goods in transit throughout are not included. Wagons loaded on a railway network and carried by ferry to a foreign network are included.*

### **A.V-25. International goods transport by rail - unloaded (incoming)**

Goods carried by rail between a place of loading located in a foreign country and a place of unloading in the reporting country.

*Goods in transit throughout are not included. Wagons loaded on a foreign railway network and carried by ferry to the reporting network are included.*

### **A.V-26. Goods in transit by rail throughout**

Goods carried by rail through the reporting country between two places (place of loading/unloading) outside the reporting country.

*Wagons entering and/or leaving the reporting network by ferry are included.*

### **A.V-27. Goods rail transport link**

The combination of the place of loading and the place of unloading of the goods transported by rail whichever itinerary is followed.

### **A.V-28. Place of loading**

The place taken into account is the place in which the goods are loaded on a railway vehicle to be transported by it.

*Unlike in road and inland waterway transport, transshipments from one railway vehicle directly to another and change of tractive vehicle are not regarded as unloading/loading. However, if the goods are unloaded from a railway vehicle, loaded on another mode of transport and, again loaded on another railway vehicle, this is considered as unloading from the first railway vehicle followed by loading on the second railway vehicle.*



**A.V-29. Place of unloading**

The place taken into account is the place in which the goods are unloaded from a railway vehicle after being transported by it.

*Unlike in road and inland waterway transport, transshipments from one railway vehicle directly to another and change of tractive vehicle are not regarded as unloading/loading. However, if the goods are unloaded from a railway vehicle, loaded on another mode of transport and, again loaded on another railway vehicle, this is considered as unloading from the first railway vehicle followed by loading on the second railway vehicle.*

**A.VI. ENERGY CONSUMPTION****A.VI-01. Energy consumption by rail transport**

Final energy consumed by tractive vehicles for traction, train services and facilities (heating, air conditioning, lighting...).

**A.VI-02. Tonne of oil equivalent (TOE)**

Unit of measurement of energy consumption : 1 TOE = 0.041868 TJ.

*Conversion factors adopted by the International Energy Agency (IEA) for 1991 are the following:*

-- Motor gasoline	1.070
-- Gas/diesel oil	1.035
-- Heavy fuel oil	0.960
-- Liquefied petroleum gas	1.130
-- Natural gas	0.917

*The conversion factor used by the IEA for electricity is: 1 TWh = 0.086 Mtoe.*

**A.VI-03. Joule**

Unit of measurement of energy consumption:

1 terajoule =  $10^{12}$  J =  $2.78 \times 10^5$  kWh,

1 terajoule = 23.88459 TOE.

**A.VI-04. Motor gasoline (petrol)**

Light hydrocarbon oil for use in internal combustion engines, excluding those in aircraft.

*Motor gasoline is distilled between 35°C and 215°C and treated by reforming, catalytic cracking or blending with an aromatic fraction to reach a sufficiently high octane number ( $\geq 80$  RON).*

*Calorific value: 44.8 TJ/1 000 t.*

**A.VI-05. Gas/diesel oil (distillate fuel oil)**

Oil obtained from the lowest fraction from atmospheric distillation of crude oil.

*Gas/diesel oil includes heavy gas oils obtained by vacuum re-distillation of the residual from atmospheric distillation. Gas/diesel oil distils between 200°C and 380°C, with less than 65 per cent in volume at 250°C, including losses, and 80 per cent or more at 350°C. The flashpoint is always above 50°C and their density is higher than 0.81. Heavy oils obtained by blending are grouped together with gas oils, provided that their kinematic viscosity does not exceed 25 cST at 40° C.*

*Calorific value: 43.3 TJ/1 000 t.*

**A.VI-06. Heavy fuel oil (residual)**

Heavy oil that makes up the distillation residue.

*This comprises all residual fuel oils (including those obtained by blending). The viscosity of heavy fuel oil is above 25 cST at 40°C. The flashpoint is always above 50°C and their density is higher than 0.90.*

**A.VI-07. Liquefied petroleum gases (LPG)**

Light hydrocarbons of the paraffin series which are derived solely from the distillation of crude oil.

*The LPG comprise propane and butane or a mixture of these two hydrocarbons. They can be liquefied under low pressure (5-10 atmospheres). In the liquid state and at a temperature of 38°C they have a relative vapour pressure less than or equal to 24.5 bars. Their specific gravity ranges from 0.50 to 0.58.*

**A.VI-08. Hard coal**

A black, natural fossil organic sediment with a gross calorific value of more than 23 860 kJ/kg (5 700 kcal/kg) in the ash-free condition and with the moisture content obtaining at a temperature of 30° C and relative air humidity of 96 per cent, and with a mean random reflectance of vitrinite of at least 0.6.

**A.VI-09. Brown coal -- Lignite**

A non-agglomerating coal with a gross calorific value of less than 23 860 kJ/kg (5 700 kcal/kg) in a condition free of wet ash and containing more than 31 per cent volatile matter on a dry mineral free basis.

**A.VI-10. Electric power**

Energy produced by hydro-electric, geothermal, nuclear and conventional thermal power stations, excluding energy produced by pumping stations, measured by the calorific value of electricity (3.6 TJ/GWh).

*Pumping station is a power station with a reservoir which is filled by the use of pumps.*

**B**

**ROAD TRANSPORT**

## **B.I. INFRASTRUCTURE**

### **B.I-01. Road**

Line of communication (travelled way) using a stabilized base other than rails or air strips open to public traffic, primarily for the use of road motor vehicles running on their own wheels.

*Included are bridges, tunnels, supporting structures, junctions, crossings and interchanges. Toll roads are also included. Excluded are dedicated cycle paths.*

### **B.I-02. Road network**

All roads in a given area.

### **B.I-03. Category of road**

Classification of the road network according to a) administration responsible for its construction, maintenance and/or operation; b) according to design standards or, c) according to the users allowed to have access on the road.

### **B.I-04. Motorway**

Road, specially designed and built for motor traffic, which does not serve properties bordering on it, and which:

- (a) is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other, either by a dividing strip not intended for traffic, or exceptionally by other means;
- (b) does not cross at level with any road, railway or tramway track, or footpath;
- (c) is specially sign-posted as a motorway and is reserved for specific categories of road motor vehicles.

*Entry and exit lanes of motorways are included irrespectively of the location of the sign-posts. Urban motorways are also included.*

### **B.I-05. Urban road**

A road within the boundaries of a built-up area, which is an area with entries and exits specially sign-posted as such.

### **B.I-06. E road**

The international "E" network consists of a system of reference roads as laid down in the European Agreement on Main International Arteries, Geneva, 15 November 1975 and its amendments.

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### **B.I-07. Carriageway**

Part of the road intended for the movement of road motor vehicles; the parts of the road which form a shoulder for the lower or upper layers of the road surface are not part of the roadway, nor are those parts of the road intended for the circulation of road vehicles which are not self-propelled or for the parking of vehicles even if, in case of danger, they may occasionally be used for the passage of motor vehicles. The width of a carriageway is measured perpendicularly to the axis of the road.

### **B.I-08. Lane**

One of the longitudinal strips into which a carriageway is divisible, whether or not defined by longitudinal road markings, which is wide enough for one moving line of motor vehicles other than motor cycles.

### **B.I-09. Tramway**

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.*

## **B.II. TRANSPORT EQUIPMENT (VEHICLES)**

### **B.II-01. Road vehicle**

A vehicle running on wheels and intended for use on roads.

### **B.II-02. Stock of road vehicles**

Number of road vehicles registered at a given date in a country and licensed to use roads open to public traffic.

*This includes road vehicles exempted from annual taxes or license fees; it also includes imported second-hand vehicles and other road vehicles according to national practices. The statistics should exclude military vehicles.*

### **B.II-03. National road vehicle**

A road vehicle registered in the reporting country and bearing registration plates of that country, or having been separately registered (trams, trolleybuses, etc.).

*Where registration of a road vehicle does not apply in a specific country, a national road vehicle is a vehicle owned or leased by a company tax resident in that country.*

### **B.II-04. Foreign road vehicle**

A road vehicle registered in a country other than the reporting country and bearing registration plates of that foreign country.

**B.II-05. Road motor vehicle**

A road vehicle fitted with an engine whence it derives its sole means of propulsion, which is normally used for carrying persons or goods or for drawing, on the road, vehicles used for the carriage of persons or goods.

*The statistics exclude motor vehicles running on rails.*

**B.II-06. Passenger road vehicle**

A road vehicle designed, exclusively or primarily, to carry one or more persons.

*Vehicles designed for the transport of both passengers and goods should be classified either among the passenger road vehicles or among the goods road vehicles, depending on their primary purpose, as determined either by their technical characteristics or by their category for tax purposes.*

**B.II-07. Cycle**

A road vehicle which has two or more wheels and is propelled solely by the muscular energy of the persons on that vehicle, in particular by means of a pedal system, lever or handle (e.g. bicycles, tricycles, quadricycles and invalid carriages).

**B.II-08. Passenger road motor vehicle**

A road motor vehicle, exclusively designed or primarily, to carry one or more persons.

*Vehicles designed for the transport of both passengers and goods should be classified either among the passenger road vehicles or among the goods road vehicles, depending on their primary purpose, as determined either by their technical characteristics or by their category for tax purposes.*

**B.II-09. Types of passenger road motor vehicle**

These vehicles may be classified according to the type of energy used by the motor, the main ones being:

- Gasoline (petrol)
- Diesel
- Gas-powered
- Electricity
- Other

**B.II-10. Moped**

Two- or three-wheeled road vehicle which is fitted with an engine having a cylinder capacity of less than 50cc (3.05 cu.in) and a maximum authorized design speed in accordance with national regulations.

**B.II-11. Motorcycle**

Two-wheeled road motor vehicle with or without side-car, including motor scooter, or three-wheeled road motor vehicle not exceeding 400 kg (900 lb) unladen weight. All such vehicles with a

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cylinder capacity of 50 cc or over are included, as are those under 50 cc which do not meet the definition of moped.

### **B.II-12. Passenger car**

Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver).

*The term "passenger car" therefore covers microcars (need no permit to be driven), taxis and hired passenger cars, provided that they have fewer than ten seats. This category may also include pick-ups.*

### **B.II-13. Caravan**

Road vehicle not intended for the carriage of passengers and/or goods and designed to be hauled by passenger car.

*The term caravan, therefore, includes road vehicles intended mainly for recreational purposes.*

### **B.II-14. Motor-coach or bus**

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).*

### **B.II-15. Trolleybus**

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).*

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

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.

### **B.II-17. Number of seats/berths in motor coaches, buses and trolleybuses**

Number of seats/berths, including the driver's, available in the vehicle when it is performing the service for which it is primarily intended.

*In case of doubt, the highest number of seats/berths available should be taken into account.*

### **B.II-18. Goods road vehicle**

Road vehicle designed, exclusively or primarily, to carry goods.

*Vehicles designed for the transport of both passengers and goods should be classified either among the passenger road vehicles or among the goods road vehicles, depending on their primary purpose, as determined either by their technical characteristics or by their category for tax purposes.*

### **B.II-19. Types of body of goods road vehicle**

Classification of goods road vehicles by types of their superstructures. The following classification of types of bodies of goods road vehicles are considered:

- Ordinary open box (1)
  - with cover
  - flat
- Tipper (2)
- Tanker (3)
  - solid bulk
  - liquid bulk
- Temperature controlled box (4)
- Other closed box (5)
- Skeletal container and swap-body transporter (6)
- Livestock transporter (7)
- Others (8)

### **B.II-20. Goods road motor vehicle**

Any single road motor vehicle designed to carry goods (lorry), or any coupled combination of road vehicles designed to carry goods, (i.e. lorry with trailer(s), or road tractor with semi-trailer and with or without trailer).

### **B.II-21. Lorry**

Rigid road motor vehicle designed, exclusively or primarily, to carry goods.

*This category includes vans which are rigid road motor vehicles designed exclusively or primarily to carry goods with a gross vehicle weight of not more than 3 500 kg. This category may also include "pick-ups".*

### **B.II-22. Road tractor**

Road motor vehicle designed, exclusively or primarily, to haul other road vehicles which are not power-driven (mainly semi-trailers).

*Agricultural tractors are excluded.*

### **B.II-23. Agricultural tractors**

Motor vehicle designed exclusively or primarily for agricultural purposes whether or not permitted to use roads opened to public traffic.

### **B.II-24. Trailer**

Goods road vehicle designed to be hauled by a road motor vehicle.

*This category exclude agricultural trailers and caravans.*

### **B.II-25. Agricultural trailer**

Trailer designed exclusively or primarily for agricultural purposes and to be hauled by agricultural tractor, whether or not permitted to use roads opened to public traffic.



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### **B.II-26. Semi-trailer**

Goods road vehicle with no front axle designed in such way that part of the vehicle and a substantial part of its loaded weight rests on the road tractor.

### **B.II-27. Articulated vehicle**

Road tractor coupled to a semi-trailer.

### **B.II-28. Road train**

Goods road motor vehicle coupled to a trailer

*Articulated vehicle with a further trailer attached is included.*

### **B.II-29. Special purpose road vehicle**

Road vehicle designed for purposes other than the carriage of passengers or goods.

*This category includes e.g. fire brigade vehicles, ambulances, mobile cranes, self-propelled rollers, bulldozers with metallic wheels or track, vehicles for recording film, radio and TV programmes, mobile library vehicles, towing vehicles for vehicles in need of repair, and other road vehicles not specified elsewhere.*

### **B.II-30. Load capacity**

Maximum weight of goods declared permissible by the competent authority of the country of registration of the vehicle.

### **B.II-31. Gross vehicle weight (Legally permissible maximum weight)**

Total of the weight of the vehicle (or combination of vehicles) including its load when stationary and ready for the road declared permissible by the competent authority of the country of registration.

*This includes the weight of the driver and of all persons carried at the same time.*

### **B.II-32. Age of road vehicle**

Length of time after the first registration of the road vehicle, irrespective of the registering country.

### **B.II-33. Cylinder capacity**

The cylinder capacity of the engine as certified by the competent authority of the country of registration.

### **B.II-34. Unladen vehicle weight**

The unladen weight of the vehicle as certified by the competent authority of the country of registration.

**B.II-35. Motor energy**

The principal type of motor energy used by the vehicle as certified by the competent authority of the country of registration.

*For hybrid or dual-fuelled vehicles adapted for using more than one type of motor energy (e.g. LPG and petrol, or electricity and diesel, etc.), the principal type of motor energy should be, where possible, an alternative fuel.*

**B.II-36. Alternative fuel**

A type of motor energy other than the conventional fuels, petrol and diesel.

*Alternative fuels include electricity, LPG, natural gas (NGL or CNG), alcohols, mixtures of alcohols with other fuels, hydrogen, biofuels (such as biodiesel), etc. (This list is not exhaustive.) Alternative fuels do not include unleaded petrol, reformulated petrol or city (low-sulphur) diesel.*

**B.III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT****B.III-01. Transport for hire or reward**

The carriage for remuneration, of persons or goods, on behalf of third parties.

**B.III-02. Transport on own account**

Transport which is not for hire or reward.

**B.III-03. Enterprise**

Institutional unit or smallest combination of institutional units that encloses and directly or indirectly controls all necessary functions to carry out its production activities<sup>1</sup>.

*The requirements of an enterprise are that it has one ownership or control. It can, however, be heterogenous with regard to its economic activity as well as to its location.*

**B.III-04. Road transport enterprise**

Enterprise carrying out in one or more places activities for the production of road transport services using road vehicles and whose main activities according to the value added is road transport.

*In terms of activity classifications the following classes are involved:*

- ISIC/Rev.3<sup>2</sup> : Division 60, Group 602 - Other land transport;  
Class 6021 - Other scheduled passenger land transport,  
Class 6022 - Other non-scheduled passenger land transport;  
Class 6023 - Freight transport by road;

<sup>1</sup>ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

<sup>2</sup>ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

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- NACE/Rev.1<sup>3</sup>: Division 60, Group 602; Urban and road transport  
Class 60.21- Scheduled passenger transport;  
Class 60.22 - Taxi operation;  
Class 60.23 - Other road passenger transport;  
Class 60.24 - Freight transport by road.

*Even those enterprises without salaried employees are taken into account. Only units, which actually carry out an activity during the reference period should be considered. "Dormant" units or those not yet having begun their activity are excluded.*

### **B.III-05. Road passenger transport enterprise**

Road transport enterprise offering and performing services in the transport of one or more persons (passengers), not including the driver, and whose main activities in the field of road transport, according to value-added, is road passenger transport.

### **B.III-06. Road goods transport enterprise**

Road transport enterprise offering and performing services in the transport of goods, whose main activity in the field of road transport, according to value-added, is road goods transport.

### **B.III-07. Urban road passenger enterprise**

Road passenger transport enterprise performing urban, metropolitan or similar scheduled or non-scheduled transport services within the boundaries of one or more built-up areas and whose main activities in the field of road passenger transport, according to value-added, is urban road passenger transport.

### **B.III-08. Public road transport enterprise**

Road transport enterprise which is principally owned (greater than 50 % of the capital) by the State or public authorities and their enterprises.

### **B.III-09. Employment**

Average number of persons working during the given period in a road transport enterprise (inclusive of working proprietors, partners working regularly in the enterprise and unpaid family workers), as well as persons working outside the enterprise but who belong to it and are directly paid by it.

### **B.III-10. Turnover**

Total amount invoiced by the road transport enterprise during the period under review. This corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the enterprise with the exception of VAT invoiced by the unit vis-a-vis its customer. It also includes all other charges ascribed to the customer. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

*Turnover does not include sales of fixed assets. Operating subsidies received from public authorities are also excluded.*

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<sup>3</sup>NACE/Rev.1 - Statistical Classification of Economic Activities in the European Communities, Official Journal, No. L 83, 3 April, 1993.

### **B.III-11. Revenues**

Amounts expressed in monetary units which are entered in the accounts as credit to the road transport enterprise.

### **B.III-12. Types of revenues**

The main categories of revenues to be considered are:

-- Revenues from transport operations

*This category includes goods and passenger traffic revenues.*

-- Amounts received from the State or other public bodies

*This category includes compensation receipts and other subsidies.*

-- Other revenues

*This category includes revenues not related to transport activities, e.g. financial revenues etc.*

### **B.III-13. Costs**

The amount of available resources spent by the road transport enterprise in conjunction with an operation or service, or with a series of operations and services.

### **B.III-14. Types of costs**

The main categories of costs being considered are:

-- Labour costs

*Including wages and salaries of active staff, pensions, various social charges , etc.*

-- Material and service costs

*Including purchase of other material and services provided by third parties, but excludes energy consumption costs.*

-- Energy consumption costs

-- Taxes

-- Financial charges

-- Other costs

*Including amounts allocated to depreciation and provisions etc.*

### **B.III-15. Value added**

Gross output of the road transport enterprise less the value of its intermediate consumption. Value added of domestic production of all road transport enterprises in a country is equal to their contribution to the GDP of that country.

*It is understood that value added, in this context, is expressed in market prices.*

## B. Road Transport

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### **B.III-16. Tangible investment**

The outlay (purchases and own account production) of road transport enterprises on additions of new and used capital goods (commodities) to their stocks of fixed capital assets less their net sales of similar second-hand and scrapped goods.

*The contribution of all road transport enterprises to the gross fixed capital formation of a country is equal to the total of their tangible investment less the balance between the purchase and sale of land.*

### **B.III-17. Investment expenditure on roads**

Expenditure on new construction and extension of existing roads, including reconstruction, renewal and major repairs.

### **B.III-18. Investment expenditure on road vehicles**

Expenditure on purchase of road vehicles.

### **B.III-19. Maintenance expenditure on roads**

Expenditure for keeping roads in working order.

*This includes surface maintenance, patching and running repairs (work relating to roughness of carriageway's wearing course, roadsides, etc.).*

### **B.III-20. Maintenance expenditure on road vehicles**

Expenditure for keeping road vehicles in working order.

## **B.IV. TRAFFIC**

### **B.IV-01. Road traffic**

Any movement of a road vehicle on a given network.

*When a road vehicle is being carried on another vehicle, only the movement of the carrying vehicle (active mode) is considered.*

### **B.IV-02. Road traffic on national territory**

Any movement of road vehicles within a national territory irrespective of the country in which these vehicles are registered.

### **B.IV-03. Empty road traffic**

Any movement of a road vehicle for which the gross-gross weight of goods carried including that of equipment such as containers, swap bodies and pallets is nil; as well as any movement of motor-coaches, buses, trolleybuses and trams without any passenger.

*The movement of a road vehicle carrying empty equipment such as containers, swap bodies and pallets is not considered as empty journey.*

**B.IV-04. Urban road traffic**

Traffic carried out on urban roads or tramways.

*Proportions of a through journey involving a relatively short passage over urban roads are not counted as urban traffic.*

**B.IV-05. Road journey**

A movement of a road vehicle from a specified point of origin to a specified point of destination.

*A journey can be divided into a number of sections or stages.*

**B.IV-06. Vehicle-kilometre**

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

*The distance to be considered is the distance actually run. It includes movements of empty road motor vehicles. Units made up of a tractor and a semi-trailer or a lorry and a trailer are counted as one vehicle.*

**B.IV-07. Tonne-kilometre offered**

Unit of measure representing the movement of one tonne available in a road goods vehicle when performing services for which it is primarily intended over one kilometre.

*The distance to be considered is the distance actually run.*

**B.IV-08. Seat-/Standing place-kilometre offered**

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

*The distance to be considered is the distance actually run.*

**B.IV-09. Entry of a road vehicle**

Any loaded or empty road motor vehicle which entered the country by road.

*If a road motor vehicle is entering the country by another mode of transport, only the active mode is considered to have entered that country.*

**B.IV-10. Exit of a road vehicle**

Any loaded or empty road motor vehicle which leaves the country by road.

*If a road motor vehicle is leaving the country by another mode of transport, only the active mode is considered as leaving that country.*

**B.IV-11. Transit of road vehicle**

Any loaded or empty road motor vehicle, which enters and leaves the country at different points by whatever means of transport, provided the total journey within the country is by road and that there is no loading or unloading in the country.

*Road motor vehicles loaded/unloaded at the frontier of that country onto/from another mode of transport are included.*

**B.V. TRANSPORT MEASUREMENT**

**B.V-01. Road transport**

Any movements of goods and/or passengers using a road vehicle on a given road network.

*When a road vehicle is being carried on another vehicle, only the movement of the carrying vehicle (active mode) is considered.*

**B.V-02. National road transport**

Road transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) located in the same country irrespective of the country in which the vehicle is registered. It may involve transit through a second country.

**B.V-03. Road cabotage transport**

National road transport performed by a motor vehicle registered in another country.

**B.V-04. International road transport**

Road transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) in two different countries. It may involve transit through one or more additional country or countries.

**B.V-05. Cross-trade road transport**

International road transport performed by a road motor vehicle registered in a third country.

*A third country is a country other than the country of loading/embarkation or than the country of unloading/disembarkation.*

**B.V-06. Road transit**

Road transport through a country between two places (a place of loading and a place of unloading) both located in another country or in other countries provided that the total journey within the country is by road and that there is no loading and unloading in that country.

*Road motor vehicles loaded/unloaded at the frontier of that country onto/from another mode of transport are included.*

**B.V-07. Urban road transport**

Transport carried out on urban roads or tramways.

*Only transport mainly or solely performed on urban roads is considered to be urban transport.*

**B.V-08. Road passenger**

Any person who makes a journey by a road vehicle. Drivers of passenger cars, excluding taxi drivers, are counted as passengers. Service staff assigned to buses, motor coaches, trolleybuses, trams and goods road vehicles are not included as passengers.

**B.V-09. Road passenger-kilometre**

Unit of measure representing the transport of one passenger by road over one kilometre.

*The distance to be taken into consideration is the distance actually travelled by the passenger.*

**B.V-10. Purpose of road passenger journeys**

The reasons for undertaking the journey are:

- Work and education (commuting)
- Business
- Holidays (vacation)
- Other (shopping, leisure, family)

**B.V-11. Road passenger embarked**

Passenger who boards a road vehicle to be conveyed by it.

*A transfer from one road vehicle to another is regarded as embarkation after disembarkation*

**B.V-12. Road passenger disembarked**

A passenger alighting from a road vehicle after having been conveyed by it.

*A transfer from one road vehicle to another is regarded as disembarkation before re-embarkation.*

**B.V-13. Road passenger transport link**

The combination of the place of embarkation and the place of disembarkation of the passengers conveyed by road whichever itinerary is followed.

*Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).*

**B.V-14. Place of embarkation**

The place taken into account is the place where the passenger boarded a road vehicle to be conveyed by it.

*A transfer from one road vehicle to another is regarded as embarkation after disembarkation.*



### **B.V-15. Place of disembarkation**

The place taken into account is the place where the passenger alighted from a road vehicle after having been conveyed by it.

*A transfer from one road vehicle to another is regarded as disembarkation before re-embarkation.*

### **B.V-16. Goods carried by road**

Any goods moved by road goods vehicles.

*This includes all packaging and equipment such as containers, swap-bodies or pallets.*

### **B.V-17. Weight**

The weight to be taken into consideration is the gross-gross weight of goods.

*This includes the total weight of the goods, all packaging, and tare-weight of the container, swap-body and pallets containing goods. When this tare-weight is excluded, the weight is gross weight.*

### **B.V-18. Tonne-kilometre by road**

Unit of measure of goods transport which represents the transport of one tonne by road over one kilometre.

*The distance to be taken into consideration is the distance actually run.*

### **B.V-19. Types of goods carried by road**

The categories of goods carried by road are those defined by the NST/R nomenclature (Standard Goods Nomenclature for Transport Statistics/revised - Eurostat) or the CSTE nomenclature (Commodity Classification for Transport Statistics in Europe - UNECE).

### **B.V-20. Dangerous goods**

The classes of dangerous goods carried by road are those defined by the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

### **B.V-21. Goods loaded**

Goods placed on a road vehicle and dispatched by road.

*Transshipment from one goods road vehicle to another or change of the road tractor are regarded as loading after unloading.*

### **B.V-22. Goods unloaded**

Goods taken off a road vehicle after transport by road.

*Transshipment from one goods road vehicle to another or change of the road tractor are regarded as unloading before reloading.*

**B.V-23. Goods having left the country by road (other than goods in transit by road throughout)**

Goods which having been loaded on a road vehicle in the country, left the country by road and were unloaded in another country.

**B.V-24. Goods having entered the country by road (other than goods in transit by road throughout)**

Goods which, having been loaded on a road vehicle in another country, entered the country by road and were unloaded there.

**B.V-25. Goods in transit by road throughout**

Goods which entered the country by road and left the country by road at a point different from the point of entry, after having been carried across the country in the same goods road motor vehicle.

*Transshipment from one goods road vehicle to another or change of the road tractor are regarded as loading/unloading.*

**B.V-26. Goods road transport link**

The combination of the place of loading and the place of unloading of the goods transported by road whichever itinerary is followed.

*Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).*

**B.V-27. Place of loading**

The place taken into account for loading is the place where the goods were loaded on a goods road motor vehicle or where the road tractor has been changed.

**B.V-28. Place of unloading**

The place taken into account is the place where the goods were unloaded from a goods road motor vehicle or where the road tractor has been changed.

**B.VI. ENERGY CONSUMPTION**

**B.VI-01. Energy consumption by road transport**

Final energy consumed by road motor vehicles.

*This includes final energy consumed by unloaded road vehicles.*

## B. Road Transport

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### B.VI-02. Tonne of oil equivalent (TOE)

Unit of measurement of energy consumption : 1 TOE = 0.041868 TJ.

*Conversion factors adopted by the International Energy Agency (IEA) for 1991 are the following:*

-- Motor gasoline	1.070
-- Gas/diesel oil	1.035
-- Heavy fuel oil	0.960
-- Liquefied petroleum gas	1.130
-- Natural gas	0.917

*The conversion factor used by the IEA for electricity is: 1 TWh = 0.086 Mtoe.*

### B.VI-03. Joule

Unit of measurement of energy consumption :

1 terajoule =  $10^{12}$  Joule =  $2.78 \times 10^5$  kWh),

1 terajoule = 23.88459 TOE

### B.VI-04. Motor gasoline (petrol)

Light hydrocarbon oil for use in internal combustion engines, excluding those in aircraft.

*Motor gasoline is distilled between 35°C and 215°C and treated by reforming, catalytic cracking or blending with an aromatic fraction to reach a sufficiently high octane number ( $\geq 80$  RON).*

*Calorific value: 44.8 TJ/1 000 t.*

### B.VI-05. Gas/diesel oil (distillate fuel oil)

Oil obtained from the lowest fraction from atmospheric distillation of crude oil.

*Gas/diesel oil includes heavy gas oils obtained by vacuum re-distillation of the residual from atmospheric distillation. Gas/diesel oil distils between 200°C and 380°C, with less than 65 per cent in volume at 250°C, including losses, and 80 per cent or more at 350°C. The flashpoint is always above 50°C and their density is higher than 0.81. Heavy oils obtained by blending are grouped together with gas oils, provided that their kinematic viscosity does not exceed 25 cST at 40°C.*

*Calorific value: 43.3 TJ/1 000 t.*

### B.VI-06. Liquefied petroleum gases (LPG)

Light hydrocarbons of the paraffin series which are derived solely from the distillation of crude oil.

*The LPG comprise propane and butane or a mixture of these two hydrocarbons. They can be liquefied under low pressure (5-10 atmospheres). In the liquid state and at a temperature of 38°C they have a relative vapour pressure less than or equal to 24.5 bars. Their specific gravity ranges from 0.50 to 0.58.*

**B.VI-07. Natural gas liquids (NGL)**

Liquid or liquefied hydrocarbons produced in the manufacture, purification and stabilization of natural gas. Their characteristics vary, ranging from those of ethane, butane and propane to heavy oils. NGL's are either distilled with crude oil in refineries, blended with refined petroleum products or used directly depending on their characteristics.

**B.VI-08. Electric power**

Energy produced by hydro-electric, geothermal, nuclear and conventional thermal power stations, excluding energy produced by pumping stations, measured by the calorific value of electricity (3.6 TJ/GWh).

*Pumping station is a power station with a reservoir which is filled by the use of pumps.*

**B.VII. ACCIDENTS**

**B.VII-01. Injury accident**

Any accident involving at least one road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one injured or killed person.

*Included are: 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.*

**B.VII-02. Fatal accident**

Any injury accident resulting in a person killed.

**B.VII-03. Non-fatal accident**

Any injury accident other than a fatal accident.

**B.VII-04. Casualty**

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

**B.VII-05. Person killed**

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

*For countries that do not apply this definition, conversion coefficients are estimated so that comparisons on the basis of the 30 day-definition can be made.*

*France 1.057 Italy 1.03 Latvia 1.08 Portugal 1.3 Turkey 1.3*

## B. Road Transport

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### **B.VII-06. Person injured:**

Any person not killed, but who sustained an injury as result of an injury accident, normally needing medical treatment.

### **B.VII-07. Person seriously injured:**

Any person injured who was hospitalized for a period of more than 24 hours.

### **B.VII-08. Person slightly injured:**

Any person injured excluding persons seriously injured.

### **B.VII-09. Driver (involved in an injury accident)**

Any person involved in an injury accident who was driving a road vehicle at the time of the accident.

### **B.VII-10. Passenger (involved in an injury accident)**

Any person involved in an injury accident, other than a driver, who was in or on a road vehicle, or in the process of getting in or out of a road vehicle.

### **B.VII-11. Pedestrian (involved in an injury accident)**

Any person involved in an injury accident other than a passenger or driver as defined above.

*Included are occupants or persons pushing or pulling a child's carriage, an invalid chair, or any other small vehicle without an engine. Also included are persons pushing a cycle, moped, rollerskating, skateboarding, skiing or using similar devices.*

### **B.VII-12. Accident between road vehicle and pedestrian**

Any injury accident involving one or more road vehicle and one or more pedestrian.

*Included are accidents irrespective of whether a pedestrian was involved in the first or a later phase of the accident and whether a pedestrian was injured or killed on or off the road.*

### **B.VII-13. Single road vehicle accident**

Any injury accident in which only one road vehicle is involved.

*Included are accidents of vehicles trying to avoid collision and veering off the road, or accidents caused by collision with obstruction or animals on the road. Excluded are collisions with pedestrians and parked vehicles.*

**B.VII-14. Multi-vehicle road accident**

Any injury accident involving two or more road vehicles only.

The following types of injury accidents involving two or more road vehicles are:

- (a) **Rear-end collision:** collision with another vehicle using the same lane of a carriageway and moving in the same direction, slowing or temporarily halted.

*Included are collisions with moving vehicles; excluded are collisions with parked vehicles.*

- (b) **Head-on collision:** collision with another vehicle using the same lane of a carriageway and moving in the opposite direction, slowing or temporarily halted.

*Included are collisions with vehicles slowing or temporarily halted; excluded are collisions with parked vehicles.*

- (c) **Collision due to crossing or turning:** collision with another vehicle moving in a lateral direction due to crossing, leaving or entering a road.

*Excluded are collisions with vehicles halted and waiting to turn which should be classified under (a) or (b).*

- (d) **Other collisions, including collisions with parked vehicles:** collision occurring when driving side by side, overtaking or when changing lanes; or collision with a vehicle which has parked or stopped at the edge of a carriageway, on shoulders, marked parking spaces, footpaths or parking sites, etc.

*Included are all collisions not covered by (a), (b) and (c). The constituent element for classification of accidents between vehicles is the first collision on the carriageway, or the first mechanical impact on the vehicle.*

**B.VII-15. Accident with drivers reported under the influence of alcohol, drugs or medication**

Any injury accident where at least one driver is reported to be under the influence of alcohol, drugs or medication impairing driving ability, according to national regulations.

**B.VII-16. Within built-up areas**

Area with entries and exits designated by appropriate traffic signs.

**B.VII-17. Outside built-up areas**

Any areas excluding areas with entries and exits designated by appropriate traffic signs.

*Includes motorways, unless elsewhere specified.*

**B.VII-18. Daylight**

As reported by the police or other authorities.

## B. Road Transport

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### **B.VII-19. Darkness**

As reported by the police or other authorities.

### **B.VII-20. Twilight (or unknown)**

A residual category covering cases where daylight conditions were very poor or where no information on light conditions was available.

### **B.VII-21. Dry road surface**

A road surface not covered by water, snow, ice or other substances.

### **B.VII-22. Other road surface**

Any other road surface other than a dry road surface.

**C**

**INLAND WATERWAY TRANSPORT (IWT)**



## **C.I. INFRASTRUCTURE**

### **C.I-01. Waterway**

River, canal, lake or other stretch of water which by natural or man-made features is suitable for navigation.

*Waterways of a maritime character (waterways designated by the reporting country as suitable for navigation primarily by seagoing ships) are included. Waterways also include river estuaries; the boundary being that point nearest the sea where the width of the river is both less than 3 km at low water and less than 5 km at high water.*

### **C.I-02. Navigable inland waterway**

A stretch of water, not part of the sea, over which vessels of a carrying capacity of not less than 50 tonnes can navigate when normally loaded. This term covers both navigable rivers and lakes and navigable canals.

*The length of rivers and canals is measured in mid-channel. The length of lakes and lagoons is measured along the shortest navigable route between the most distant points to and from which transport operations are performed. A waterway forming a common frontier between two countries is reported by both.*

### **C.I-03. Categories of navigable inland waterways**

The categories of navigable inland waterways are defined with reference to international classification systems such as those drawn up by the United Nations Economic Commission for Europe or by the European Conference of Ministers of Transport.

### **C.I-04. Navigable river**

Natural waterway open for navigation, irrespective of whether it has been improved for that purpose.

### **C.I-05. Navigable lake**

Natural expanse of water open for navigation.

*Lagoons (brackish water area separated from the sea by a coastal bank) are included.*

### **C.I-06. Navigable canal**

Waterway built primarily for navigation.

### **C.I-07. Navigable inland waterway network**

All navigable inland waterways open for public navigation in a given area.

### **C.I-08. Navigable inland waterways regularly used for transport**

Waterways over which an amount of transport is performed each year; this amount, expressed as tonne-kilometres per kilometre of waterway, is determined by the authority concerned in the light of conditions prevailing on that country's waterway network.

## **C.II. TRANSPORT EQUIPMENT (VESSEL)**

### **C.II-01. IWT vessel**

Floating craft designed for the carriage of goods or public transport of passengers by navigable inland waterways.

*Vessels under repair are included. Vessels suitable for inland navigation but which are authorized to navigate at sea (mixed seagoing and inland waterway vessels) are included. This category excludes: harbour craft, seaport lighters and seaport tugs, ferries, fishery vessels, dredgers, vessels performing hydraulic work and vessels used exclusively for storage, floating workshops, houseboats and pleasure craft.*

### **C.II-02. National IWT vessel**

IWT vessel which is registered at a given date in the reporting country.

*Where registration of IWT vessels does not apply in a specific country, a national IWT vessel is a vessel owned by a company tax resident in that country.*

### **C.II-03. Foreign IWT vessel**

IWT vessel which is registered at a given date in a country other than the reporting country.

### **C.II-04. IWT freight vessel**

Vessel with a carrying capacity of not less than 20 tonnes designed for the carriage of freight by navigable inland waterways.

### **C.II-05. IWT passenger vessel**

Vessel designed exclusively or primarily for the public carriage of passengers by navigable inland waterways.

### **C.II-06. Inland waterway fleet**

Number of IWT vessels registered at a given date in a country and authorized to use inland waterways open for public navigation.

*Changes in the fleet refer to changes, in total or within a vessel type, in the inland waterway fleet of the reporting country, resulting from new construction, modification in type or capacity, purchases or sales abroad, scrapping, casualties, or transfers to or from the marine register.*

### **C.II-07. Self-propelled barge**

IWT freight vessel having its own means of mechanical propulsion.

*Towed barges, pushed barges and pushed-towed barges which have an auxiliary engine only must be regarded as towed barges, pushed barges or pushed-towed barges as the case may be. The fact that a self-propelled barge can be used for towing does not change its nature.*

**C.II-08. Self-propelled tanker barge**

Self-propelled barge intended for the bulk transport of liquids or gases.

*Tankers for the transport in bulk of powdered products such as cement, flour, plaster, etc., are to be excluded and are to be counted among self-propelled barges.*

**C.II-09. Self-propelled pusher barge**

Self-propelled barge designed or fitted to push pushed or pushed-towed barges.

**C.II-10. Self-propelled pusher tanker barge**

Self-propelled pusher barge for the bulk transport of liquids or gases.

*Tankers for the transport in bulk of powdered products such as cement, flour, plaster, etc., are to be excluded and are to be counted among self-propelled pusher barges.*

**C.II-11. Self-propelled vessel for river-sea navigation**

IWT freight vessel having a carrying capacity of at least 20 tonnes also designed for the transport of goods by sea and equipped with their own means of propulsion developing at least 37 kW.

**C.II-12. Dumb barge**

IWT freight vessel designed to be towed which does not have its own means of mechanical propulsion.

*The fact that a dumb barge is fitted with an auxiliary engine does not change its nature.*

**C.II-13. Dumb tanker barge**

Dumb barge for the bulk transport of liquids or gases.

*Tankers for the transport in bulk of powdered products such as cement, flour, plaster, etc., are to be excluded and are to be counted among dumb barges.*

**C.II-14. Pushed barge**

IWT freight vessel which is designed to be pushed and does not have its own means of mechanical propulsion.

*The fact that a pushed barge is fitted with an auxiliary engine does not change its nature.*

**C.II-15. Pushed tanker barge**

Pushed barge for the bulk transport of liquids or gases.

*Tankers for the transport in bulk of powdered products such as cement, flour, plaster, etc., are to be excluded and are to be counted among pushed barges.*

**C.II-16. Pushed-towed barge**

IWT freight vessel which is designed to be either pushed or towed and does not have its own means of mechanical propulsion.

*The fact that a pushed-towed barge is fitted with an auxiliary engine does not change its nature.*

**C.II-17. Pushed-towed tanker barge**

Pushed-towed barge for the bulk transport of liquids or gases.

*Tankers for the transport in bulk of powdered products such as cement, flour, plaster etc., are to be excluded and are to be counted among pushed-towed barges.*

**C.II-18. Tug**

Powered vessel developing not less than 37 kW and designed for the towing of dumb barges, pushed-towed barges, and rafts, but not for the carriage of goods.

*Port and sea tugs are excluded.*

**C.II-19. Pusher vessel**

Powered vessel developing not less than 37 kW and designed or fitted for the pushing of pushed or pushed-towed barges but not for the carriage of goods.

*Port pusher vessels are excluded.*

**C.II-20. Pusher tug**

Powered vessel developing not less than 37 kW and designed or fitted for the towing of dumb barges, pushed-towed barges, or rafts, and for the pushing of pushed and pushed-towed barges, but not for the carriage of goods.

**C.II-21. Carrying capacity**

Maximum permissible weight of goods, expressed in tonnes, which a vessel may carry in accordance with its documents.

**C.II-22. Capacity of an IWT passenger vessel**

Maximum permissible number of passengers that a vessel may carry in accordance with its documents.

**C.II-23. Power (kW)**

Mechanical force developed by the motive power installation in a vessel.

*This power should be measured in effective kilowatts (power transmitted to the propeller) :  
1 kW=1.36 h.p.; 1 h.p.= 0.735 kW.*

**C.II-24. Year of construction of vessel**

Year of original construction of the hull.

### **C.III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT**

#### **C.III-01. Transport for hire or reward**

Carriage, for remuneration, of persons or goods on behalf of third parties.

#### **C.III-02. Transport on own-account**

Transport which is not for hire or reward.

#### **C.III-03. Enterprise**

Institutional unit or smallest combination of institutional units that encloses and directly or indirectly controls all necessary functions to carry out its production activities<sup>4</sup>.

*The requirements of an enterprise are that it has one ownership or control. It can, however, be heterogenous with regard to its economic activity as well as to its location.*

#### **C.III-04. IWT enterprise**

Enterprise carrying out in one or more places activities for the production of IWT services using IWT vessels and whose main activities according to the value added is inland waterway transport.

*In terms of activity classifications the following classes are involved:*

*-- ISIC/Rev.3<sup>5</sup>: Class 6120 - Inland waterway transport*

*-- NACE/Rev.1<sup>6</sup>: Class 61.20 - Fluvial transport*

*Even those enterprises without salaried employees are taken into account. Only units that actually carry out an activity during the reference period should be included. "Dormant" units or those that have not as yet begun their activity are excluded.*

#### **C.III-05. Public IWT enterprise**

IWT enterprise which is principally owned (more than 50 per cent of the capital) by the State or public authorities and their enterprises.

#### **C.III-06. Employment**

Average number of persons working during the given period in an IWT enterprise (inclusive of working owners, partners working regularly in the enterprise and unpaid family workers), as well as persons working outside the enterprise but who belong to it and are directly paid by it.

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<sup>4</sup>ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

<sup>5</sup>ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

<sup>6</sup>NACE/Rev.1 - Statistical Classification of Economic Activities in the European Communities, Official Journal, No. L 83, 3 April, 1993.

### C.III-07. Turnover

Total amount invoiced by the IWT enterprise during the period under review. This total corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the enterprise with the exception of VAT invoiced by the unit vis-a-vis its customers. It also includes all other charges to customers. Reductions in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

*Turnover does not include sales of fixed assets. Operating subsidies received from public authorities are also excluded.*

### C.III-08. Revenues

Amounts expressed in monetary units which are entered in the accounts as credit to the IWT enterprise.

### C.III-09. Types of revenues

The main categories of revenues to be considered are:

-- Revenues from transport operations

*This category includes goods and passenger traffic revenues.*

-- Amounts received from the State or other public bodies

*This category includes compensation receipts and other subsidies.*

-- Other revenues

*This category includes revenues not related to transport activities, e.g. financial revenues, etc.*

### C.III-10. Costs

The amount of available resources spent by the IWT enterprise in connection with an operation or service, or with a series of operations and services.

### C.III-11. Types of costs

The main categories of costs are:

-- Labour costs

*Including wages and salaries of active staff, pensions, various social charges, etc.*

-- Material and service costs

*Including purchases of other material and services supplied by third parties, but excludes energy consumption cost.*

-- Energy consumption costs

-- Taxes

-- Financial charges

-- Other costs

*Including amounts allocated to depreciation and provisions, etc.*

**C.III-12. Value added**

Gross output of the IWT enterprise less the value of its intermediate consumption. Value added of domestic production of all of a country's IWT enterprises is equal to their contribution to the GDP of that country.

*It is understood that Value added, in this context, is expressed in market prices.*

**C.III-13. Tangible investment**

The outlay (purchases and own account production) of IWT enterprises on additions of new and used capital goods (commodities) added to their stocks of fixed capital assets minus their net sales of similar second-hand and scrapped goods.

*The contribution of all IWT enterprises to the gross fixed capital formation of a country is equal to the total of their tangible investment less the balance between the purchase and sale of land.*

**C.III-14. Investment expenditure on infrastructure**

Expenditure on new construction and extension of existing infrastructure, including reconstruction, renewal and major repairs.

*Expenditure on locks is included.*

**C.III-15. Investment expenditure on vessels**

Expenditure on purchase of vessels.

**C.III-16. Maintenance expenditure on infrastructure**

Expenditure for keeping infrastructure in working order.

*Expenditure on locks is included.*

**C.III-17. Maintenance expenditure on vessels**

Expenditure for keeping vessels in working order.

**C.IV. TRAFFIC**

**C.IV-01. Inland waterway traffic**

Any movement of an IWT vessel on a given network.

*When a vessel is being carried on another vehicle, only the movement of the carrying vehicle (active mode) is taken into account.*

**C.IV-02. Inland waterway traffic on national territory**

Any movement of an IWT vessel within a national territory irrespective of the country in which the vessel is registered.

**C.IV-03. Unladen inland waterway traffic**

Any movement of an IWT freight vessel for which the gross-gross weight of goods carried, including that of equipment such as containers, swap-bodies and pallets, is nil; as well as any movement of an IWT passenger vessel without passengers.

*The movement of an IWT vessel carrying empty equipment such as containers, swap-bodies and pallets is not considered to be an unladen journey.*

**C.IV-04. Inland waterway journey**

Any movement of an IWT vessel from a specified point of origin to a specified point of destination.

*Journey can be divided in a number of stages or sections.*

**C.IV-05. Vessel-kilometre**

Unit of measurement representing the movement of an IWT vessel over one kilometre.

*The distance taken into account is the distance actually run. Movements of unladen vessels are included. In a convoy, each unit is counted as a vessel.*

**C.IV-06. Inland waterway convoy**

One or more non-powered IWT vessels which are towed or pushed by one or more powered IWT vessels.

**C.IV-07. Vehicle-kilometre**

Unit of measurement of traffic representing the movement of an individual IWT vessel or convoy over one kilometre.

*The distance taken into account is the distance actually run. Movements of unladen individual vessels or convoys are included.*

**C.IV-08. Tonne-kilometre offered**

Unit of measure representing the movement of one tonne available in an IWT freight vessel when performing the services for which it is primarily intended over one kilometre.

*The distance to be considered is the distance actually run.*

**C.IV-09. Seat-kilometre offered**

Unit of measure representing the movement over one kilometre of one seat available in an IWT passenger vessel when performing the services for which it is primarily intended over one kilometre.

*The distance to be considered is the distance actually run.*



**C.IV-10. Entry of an IWT vessel**

Any laden or unladen IWT vessel which entered the country by inland waterway.

*If an IWT vessel is entering the country by another mode of transport, only the active mode is considered to have entered that country.*

**C.IV-11. Exit of an IWT vessel**

Any laden or unladen IWT vessel which left the country by inland waterway.

*If an IWT vessel is leaving the country by another mode of transport, only the active mode is considered as leaving that country.*

**C.IV-12. Transit of an IWT vessel**

Any laden or unladen IWT vessel which has entered and left the country at different points by whatever means of transport provided the total journey within the country was by inland waterway and that there has been no loading or unloading operation in the country.

*IWT vessels loaded/unloaded at the frontier of that country onto/from another mode of transport are included.*

**C.V. TRANSPORT MEASUREMENT**

**C.V-01. Inland waterway transport (IWT)**

Any movement of goods and/or passengers using an IWT vessel on a given inland waterway network.

*When an IWT vessel is being carried on another vehicle, only the movement of the carrying vehicle (active mode) is taken into account.*

**C.V-02. National inland waterway transport**

Inland waterway transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) located in the same country irrespective of the country in which the IWT vessel is registered. It may involve transit through a second country.

**C.V-03. Inland waterway cabotage transport**

National IWT performed by an IWT vessel registered in another country.

**C.V-04. International inland waterway transport**

Inland waterway transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) located in two different countries. It may involve transit through one or more additional countries.

### **C.V-05. Cross-trade inland waterway transport**

International IWT performed by an IWT vessel registered in a third country.

*A third country is a country other than the country of loading/embarkation or than the country of unloading/disembarkation.*

### **C.V-06. Inland waterway transit**

IWT through a country between two places (a place of loading/embarkation and a place of unloading/disembarkation) both located in another country or in other countries provided the total journey within the country is by an IWT vessel and that there is no loading and unloading in that country.

*IWT vessels loaded/unloaded at the frontier of that country onto/from another mode of transport are included.*

### **C.V-07. Urban inland waterway transport**

Transport carried out on inland waterways located within the boundaries of a built-up area.

*Only transport carried out mainly or solely on inland waterways located within the boundaries of a built-up area are regarded as urban transport.*

### **C.V-08. Inland waterway passenger**

Any person who makes a journey on board of an IWT vessel. Service staff assigned to IWT vessels are not regarded as passengers.

### **C.V-09. Inland waterway passenger-kilometre**

Unit of measure representing the transport of one passenger by inland waterways over one kilometre.

*The distance to be taken into consideration is the distance actually travelled by the passenger.*

### **C.V-10. Purpose of inland waterway passenger journeys**

The reasons for undertaking journeys are:

- Work and education (Commuting)
- Business
- Holidays
- Other (shopping, leisure, family).

### **C.V-11. Inland waterway passenger embarked**

Passenger who boards an IWT vessel to be conveyed by it.

*A transfer from one IWT vessel to another is regarded as embarkation after disembarkation.*

**C.V-12. Inland waterway passenger disembarked**

A passenger disembarking from an IWT vessel after having been conveyed by it.

*A transfer from one IWT vessel to another is regarded as disembarkation before re-embarkation.*

**C.V-13. Inland waterway passenger transport link**

The combination of the place of embarkation and the place of disembarkation of the passenger conveyed by inland waterways whichever itinerary is followed.

*Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).*

**C.V-14. Place of embarkation**

The place taken into account is the place where the passenger boarded an IWT vessel to be conveyed by it.

*A transfer from one IWT vessel to another is regarded as embarkation after disembarkation.*

**C.V-15. Place of disembarkation**

The place taken into account is the place where the passenger disembarked from an IWT vessel after having been conveyed by it.

*A transfer from one IWT vessel to another is regarded as disembarkation before re-embarkation.*

**C.V-16. Goods carried by inland waterways**

Any goods moved by IWT freight vessel.

*This includes all packaging and equipment such as containers, swap-bodies or pallets.*

**C.V-17. Weight**

The weight to be taken into consideration is the gross-gross weight of goods.

*The weight taken into consideration is equivalent to the total weight of the goods and packaging and the tare weight of equipment such as containers, swap bodies and pallets. When this tare-weight is excluded, the weight is gross weight.*

**C.V-18. Tonne-kilometre by inland waterways**

Unit of measure of goods transport which represents the transport of one tonne by inland waterways over one kilometre.

*The distance taken into account is the distance actually run.*

**C.V-19. Types of goods carried by inland waterways**

The categories of goods carried by inland waterways are those defined by the NST/R nomenclature (Standard Goods Nomenclature for Transport Statistics/revised -Eurostat) or CSTE nomenclature (Commodity Classification for Transport Statistics in Europe - UNECE).

### **C.V-20. Dangerous goods**

The classes of dangerous goods carried by inland waterways are those defined by the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).

### **C.V-21. Goods loaded**

Goods placed on an IWT vessel and dispatched by inland waterways.

*Transshipment from one IWT vessel to another is regarded as loading after unloading. The same applies to changes of pusher tugs or tugs.*

### **C.V-22. Goods unloaded**

Goods taken off an IWT vessel after transport by inland waterways.

*Transshipment from one IWT vessel to another is regarded as unloading before re-loading. The same applies to changes of pusher tugs and tugs.*

### **C.V-23. Goods having left the country by inland waterways (other than goods in transit by inland waterways throughout)**

Goods which, having been loaded on an IWT vessel in the country, left the country by inland waterways and were unloaded in another country.

### **C.V-24. Goods having entered the country by inland waterways (other than goods in transit by inland waterways throughout)**

Goods which, having been loaded on an IWT vessel in another country, entered the country by inland waterways and were unloaded there.

### **C.V-25. Goods in transit by inland waterways throughout**

Goods which entered the country by inland waterways and left the country by inland waterways at a point different from the point of entry, after having been carried across the country solely by inland waterways in the same IWT freight vessel.

*Transshipments from one IWT vessel to another and changes of pusher tugs or tugs are regarded as loading/unloading.*

### **C.V-26. Goods IWT link**

The combination of the place of loading and the place of unloading of the goods transported by inland waterways whichever itinerary is followed.

*Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).*

### **C.V-27. Place of loading**

The place taken into account is the place where the goods were loaded on an IWT freight vessel or where pusher tugs and tugs have been changed.

**C.V-28. Place of unloading**

The place taken into account is the place where the goods were unloaded from an IWT freight vessel or where pusher tugs and tugs have been changed.

**C.VI. ENERGY CONSUMPTION****C.VI-01. Energy consumption by IWT**

Final energy consumption by IWT vessels.

*This includes final energy consumption by unladen IWT vessels.*

**C.VI-02. Tonne of oil equivalent (TOE)**

Unit of measurement of energy consumption : 1 TOE = 0.041868 TJ.

*Conversion factors adopted by the International Energy Agency (IEA) for 1991 are as follows:*

-- Motor gasoline	1.070
-- Gas/diesel oil	1.035
-- Heavy fuel oil	0.960
-- Liquified petroleum gas	1.130
-- Natural gas	0.917

*The conversion factor used by the IEA for electricity is: 1 TWh = 0.086 Mtoe.*

**C.VI-03. Joule**

Unit of measurement of energy consumption:

1 terajoule =  $10^{12}$ J =  $2.78 \times 10^5$  kWh,

1 terajoule = 23.88459 TOE.

**C.VI-04. Motor gasoline (petrol)**

Light hydrocarbon oil for use in internal combustion engines, excluding those in aircraft.

*Motor gasoline is distilled between 35°C and 215°C and treated by reforming, catalytic cracking or blending with an aromatic fraction to reach a sufficiently high octane number ( $\geq 80$  RON).*

*Calorific value: 44.8 TJ/1 000 t.*

**C.VI-05. Gas/diesel oil (distillate fuel oil)**

Oil obtained from the lowest fraction from atmospheric distillation of crude oil.

*Gas/diesel oil includes heavy gas oils obtained by vacuum re-distillation of the residual from atmospheric distillation. Gas/diesel oil distils between 200°C and 380°C, with less than 65 per cent in volume at 250°C, including losses, and 80 per cent or more at 350°C. The flash-point is always above 50°C and their density is higher than 0.81. Heavy oils obtained by blending are grouped together with gas oils, provided that their kinematic viscosity does not exceed 25 cST at 40°C.*

*Calorific value: 43.3 TJ/1 000 t.*

**D**

**OIL PIPELINE TRANSPORT**

## **D.I/II. INFRASTRUCTURE/ TRANSPORT EQUIPMENT**

### **D.I/II-01. Oil pipelines**

Pipes for the movement of crude or refined liquid petroleum products by pumping.

*Branch lines are included as well as oil pipelines between the land and drilling platforms at sea. Excluded are oil pipelines whose total length is less than 50 km or whose inside diameter is less than 15 centimetres and oil pipelines used only for military purposes or located entirely within the site boundaries of an industrial operation, as well as oil pipelines that are entirely off-shore (i.e. located solely out in the open sea). International oil pipelines whose total length is 50 km or more are included even if the section in the reporting country is less than 50 km long. Oil pipelines consisting of two (or more) parallel pipelines are to be counted twice (or more).*

*Only units which actually carry out an activity during the reference period should be considered. "Dormant" units or those not yet having begun their activity are excluded.*

### **D.I/II-02. Oil pipeline network**

All oil pipelines in a given area.

*The territory of the area in question includes that part of the seabed allocated to it under a concession.*

### **D.I/II-03. Carrying capacity of an oil pipeline**

Maximum tonnage of products that the oil pipeline may move during the given period.

*The carrying capacity of an pipeline is generally measured in terms of "thousand barrels a day". In converting barrels to tones, the conversion factor for crude oil is: 1 tonne = 7.55 barrels (there is a slight variation according to the type of crude). For petroleum products conversion factor is: 1 tonne = 7.5 barrels.*

## **D.III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT**

### **D.III-01. Enterprise**

Institutional unit or smallest combination of institutional units that encloses and directly or indirectly controls all necessary functions to carry out its production activities<sup>7</sup>.

*The requirements of an enterprise are that it has one ownership or control. It can, however, be heterogenous with regard to its economic activity as well as to its location.*

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<sup>7</sup> ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

## D. Oil Pipeline Transport

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### D.III-02. Oil pipeline enterprise

Enterprise formed to carry out in one or more places activities for the production of oil pipeline transport services and whose main activities according to the value-added is transport by oil pipelines.

*In terms of activity classifications the following classes are involved:*

- ISIC/Rev.3<sup>8</sup>: 6030 - Transport via pipelines.
- NACE/Rev.1<sup>9</sup>: 60.30 - Transport via pipelines.

*Only units that actually carry out an activity during the reference period should be included. "Dormant" units or those that have not as yet begun their activity are excluded.*

### D.III-03. Public oil pipeline transport enterprise

Oil pipeline enterprise which is principally owned (more than 50 per cent of the capital) by the State or public authorities and their enterprises.

### D.III-04. Employment

Average number of persons working during the given period in an oil pipeline transport enterprise and persons working outside the enterprise but who belong to it and are directly paid by it.

### D.III-05. Turnover

Total amount invoiced by the oil pipeline transport enterprise during the period under review. This corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the enterprise with the exception of VAT invoiced by the unit vis-à-vis its customers. It also includes all other charges to the customers. Reductions in prices, rebates and discounts must be deducted, but not cash discounts.

*Turnover does not include sales of fixed assets. Operating subsidies received from public authorities are also excluded.*

### D.III-06. Revenues

Amounts expressed in monetary units which are entered in the accounts as credit to the oil pipeline transport enterprise.

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<sup>8</sup> ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.

<sup>9</sup> NACE/Rev.1 - Statistical Classification of Economic Activities in the European Communities, Official Journal, No. L 83, 3 April 1993.



### **D.III-07. Types of revenues**

The main categories of revenues to be considered are:

-- Revenues from transport operations

-- Amounts received from the State or other public bodies

*This category includes compensation receipts and other subsidies.*

-- Other revenues

*This category includes revenues not related to oil pipeline transport activities, e.g. financial revenues, etc.*

### **D.III-08. Costs**

The amount of available resources spent by the oil pipeline transport enterprise in conjunction with an operation or service, or with a series of operations and services.

### **D.III-09. Types of costs**

The main categories of costs to be considered are:

-- Labour costs

*Including wages and salaries of active staff, pensions, various social charges, etc.*

-- Material and service costs

*Including purchases of other material and services supplied by third parties, but excludes energy consumption cost.*

-- Energy consumption costs

-- Taxes

-- Financial charges

-- Other costs

*Including amounts allocated to depreciation and provisions, etc.*

### **D.III-10. Value added**

Gross output of the oil pipeline transport enterprise less the value of its intermediate consumption. Value added of domestic production of all oil pipeline transport enterprises in a country is equal to their contribution to the GDP of that country.

*It is understood that Value Added, in this context, is expressed in market prices.*

## D. Oil Pipeline Transport

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### **D.III-11. Tangible investment**

The outlay (purchases and own account production) of oil pipeline transport enterprises on additions of new and used capital goods (commodities) to their stocks of fixed capital assets less their net sales of similar second-hand and scrapped goods.

*The contribution of all oil pipeline transport enterprises to the gross fixed capital formation of a country is equal to the total of their tangible investment less the balance between the purchase and sale of land.*

### **D.III-12. Investment expenditure on infrastructure**

Expenditure on new construction, extension of existing infrastructure, including reconstruction, renewal and major repairs.

*Expenditure on pumping facilities is included.*

### **D.III-13. Maintenance expenditure on infrastructure**

Expenditure for keeping infrastructure in working order.

*Expenditure on pumping facilities is included.*

## **D.IV/V. TRAFFIC/ TRANSPORT MEASUREMENT**

### **D.IV/V-01. Oil pipeline transport**

Any movement of crude or refined liquid petroleum products in a given oil pipeline network.

### **D.IV/V-02. National oil pipeline transport**

Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in the same country or in that part of the seabed allocated to it. It may involve transit through a second country.

### **D.IV/V-03. International oil pipeline transport**

Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

### **D.IV/V-04. Goods transported by oil pipeline**

Any crude or refined liquid petroleum products moved by oil pipelines.

### **D.IV/V-05. Tonne-kilometre by oil pipeline**

Unit of measure of transport which represents transport of one tonne of goods by oil pipeline over one kilometre.

*The distance taken into account is the distance actually run.*

**D.IV/V-06. Types of goods transported by oil pipeline**

The categories of goods carried by oil pipeline are those defined by the NST/R nomenclature (Standard Goods Nomenclature for Transport Statistics/revised - Eurostat) or CSTE nomenclature (Commodity Classification for Transport Statistics in Europe - UNECE).

**D.IV/V-07. Tonne-kilometre offered**

Unit of measure representing the transport capacity of oil pipeline measured by the movement over one kilometre of a tonne of goods that can be transported by oil pipeline during the given period.

**D.IV/V-08. Goods having left the country by oil pipeline (other than goods in transit by oil pipeline throughout)**

Goods which, having been pumped into an oil pipeline in the country or that part of the seabed allocated to it, left the country by oil pipeline and were pumped out in another country.

**D.IV/V-09. Goods having entered the country by oil pipeline (other than goods in transit by oil pipeline throughout)**

Goods which, having been pumped into an oil pipeline in another country or that part of the seabed allocated to it, entered the country by oil pipeline and were pumped out there.

**D.IV/V-10. Goods in transit by oil pipeline throughout**

Goods which entered the country by oil pipeline and left the country by oil pipeline at a point different from the point of entry, after having been transported across the country solely by oil pipeline.

*Goods which entered and/or left the country in question by vessels after pumping into/pumping out of an oil pipeline at the frontier are included.*

**D.IV/V-11. Goods oil pipeline transport link**

The combination of the pumping-in place and the pumping-out place of the goods transported by oil pipeline whichever itinerary is followed.

*Places are defined by using international classification systems such as NUTS (Nomenclature of Territorial Units for Statistics - Eurostat).*

**D.IV/V-12. Pumping-in place**

The place taken into account is the place at which the goods were pumped into an oil pipeline.

**D.IV/V-13. Pumping-out place**

The place taken into account is the place at which the goods were pumped out of an oil pipeline.

## **D.VI. ENERGY CONSUMPTION**

### **D.VI-01. Energy consumed for transport by oil pipeline**

Final energy consumed for movement of products by oil pipeline.

### **D.VI-02. Tonne of oil equivalent (TOE)**

Unit of measurement of energy consumption : 1 TOE = 0.041868 TJ.

*Conversion factors adopted by the International Energy Agency (IEA) for 1991 are as follows:*

-- Motor gasoline	1.070
-- Gas/diesel oil	1.035
-- Heavy fuel oil	0.960
-- Liquefied petroleum gas	1.130
-- Natural gas	0.917

*The conversion factor used by the IEA for electricity is: 1 TWh = 0.086 Mtoe.*

### **D.VI-03. Joule**

Unit of measurement of energy consumption:

1 terajoule =  $10^{12}$ J =  $2.78 \times 10^5$  kWh.

1 terajoule = 23.88459 TOE.

### **D.VI-04. Motor gasoline (petrol)**

Light hydrocarbon oil for use in internal combustion engines, excluding those in aircraft.

*Motor gasoline is distilled between 35°C and 215°C and treated by reforming, catalytic cracking or blending with an aromatic fraction to reach a sufficiently high octane number ( $\geq 80$  RON).*

*Calorific value: 44.8 TJ/1 000 t.*

### **D.VI-05. Gas/diesel oil (distillate fuel oil)**

Oil obtained from the lowest fraction from atmospheric distillation of crude oil.

*Gas/diesel oil includes heavy gas oils obtained by vacuum re-distillation of the residual from atmospheric distillation. Gas/diesel oil distils between 200°C and 380°C, with less than 65 per cent in volume at 250°C, including losses, and 80 per cent or more at 350°C. The flash-point is always above 50°C and their density is higher than 0.81. Heavy oils obtained by blending are grouped together with gas oils, provided that their kinematic viscosity does not exceed 25 cST at 40°C.*

*Calorific value: 43.3 TJ/1 000 t.*

**D.VI-06. Liquefied petroleum gases (LPG)**

Light hydrocarbons of the paraffin series which are derived solely from the distillation of crude oil.

*The LPG comprise propane and butane or a mixture of these two hydrocarbons. They can be liquefied under low pressure (5-10 atmospheres). In the liquid state and at a temperature of 38oC they have a relative vapour pressure less than or equal to 24.5 bars. Their specific gravity ranges from 0.50 to 0.58.*

**D.VI-07. Natural gas**

Natural gas consists mainly of methane occurring naturally in underground deposits, associated with crude oil or gas recovered from coal mines (colliery gas).

**D.VI-08. Electric power**

Energy produced by hydro-electric, geothermal, nuclear and conventional thermal power stations, excluding energy produced by hydro-electric pumping stations, measured by the calorific value of electricity (3.6TJ/GWh).

**E**

**MARITIME TRANSPORT**

## **E.I. INFRASTRUCTURE**

### **E.I-01. Maritime coastal area**

A maritime coastal area is normally defined as a contiguous stretch of coastline, together with islands offshore. It is defined either in terms of one or more ranges of ports along the coastline, or in terms of the latitude and longitude of one or more sets of extremities of the coastal area.

*River banks can be included. For some countries, two separate stretches of coastline may be counted as one maritime coastal area, as, for example, the Atlantic and Pacific coastlines of Mexico.*

### **E.I-02. Port**

A place having facilities for merchant ships to moor and to load or unload cargo or to disembark or embark passengers to or from vessels, usually directly to a pier.

### **E.I-03. Statistical port**

A statistical port consists of one or more ports, normally controlled by a single port authority, able to record ship and cargo movements.

### **E.I-04. Hub port**

A port served by deep sea scheduled shipping and by scheduled short sea shipping.

### **E.I-05. UN/LOCODE**

5 character code where the first two characters are the ISO 3166 country codes while the remaining three are derived from Recommendation 16 from the UNECE in Geneva, together with Eurostat supplied codes for ports not yet included in the UN system.

### **E.I-06. Port accessibility - maritime**

Port accessibility is defined by the following characteristics:

- i) Maximum length of vessel which can be accommodated at the port - metres
- ii) Maximum draft of vessel which can be accommodated at the port - metres
- iii) Port approach width and depth above low water- metres
- iv) Entrance channel width and depth above low water - metres
- v) Tidal window in hours for which vessels of maximum draft can enter and leave port.
- vi) Height restrictions above high water - metres (reflecting bridges)
- vii) Tidal range - metres

### **E.I-07. Port land side facilities**

- i) Total port land area - m<sup>2</sup>
- ii) Crude oil and petroleum products storage areas - m<sup>2</sup>
- iii) Other bulk storage and stacking areas - m<sup>2</sup>
- iv) Container stacking areas - in m<sup>2</sup> and TEU
- v) Other areas - m<sup>2</sup>
- vi) Roads - m

## E. Maritime Transport

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- vii) Rail track - m
- viii) Passenger terminals - number and number of vessels accommodated per terminal

*The bulk storage and stacking area includes facilities for dry bulks, timber, paper, semi bulks etc. Rail track includes sidings.*

### **E.I-08. Port storage areas**

Area in m<sup>2</sup> in ports for storage by type of facility. Height in metres for covered areas.

- i) Open, not securely enclosed
- ii) Open and securely enclosed
- iii) Covered but not enclosed
- iv) Covered, enclosed

*A securely enclosed area has fences, walls and/or surveillance systems.*

### **E.I-09. Port quay lengths by use**

- Total quay length in metres  
Quay length in metres allocated by use
- i) Multi-service quays
- Dedicated quays
- ii) Ro-Ro
  - iii) Containers
  - iv) Other General Cargo
  - v) Dry Bulk
  - vi) Liquid Bulk
  - vii) Passenger
  - viii) Fishing
  - ix) Other

### **E.I-10. Port quay lengths by depth of water**

Quay lengths in metres available by depth of water for ships moored alongside at low tide.

*Possible depth ranges for collection are as follows*

- i) Up to 4 metres*
- ii) More than 4 and up to 6 metres*
- iii) More than 6 and up to 8 metres*
- iv) More than 8 and up to 10 metres*
- v) More than 10 and up to 12 metres*
- vi) More than 12 and up to 14 metres*
- vii) More than 14 metres*

### **E.I-11. Ro-Ro berth**

A location at which a Ro-Ro ship can berth and load and unload motor vehicles and other mobile Ro-Ro units via ramps from ship to shore and vice versa.



**E.I-12. Port cranes by lifting capacity**

Number of cranes available in ports by lifting capacity.

*Possible classes of lifting capacity are as follows*

- i) 10 tonnes or less*
- ii) Greater than 10 tonnes and up to 20 tonnes*
- iii) Greater than 20 tonnes and up to 40 tonnes*
- iv) Greater than 40 tonnes*

**E.I-13. Port cranes by type**

Number of cranes available in ports by type

- i) Mobile container cranes
- ii) Other container cranes
- Other crane

**E.I-14. Port repair facilities**

Repair facilities at ports by number and by maximum size of vessel accommodated

- i) Dry docks
- ii) Floating docks
- iii) Slipways
- iv) Dedicated ship repair quays

**E.I-15. Port navigation aids and services**

Availability or not of navigation aids and services a) at ports and b) in the approach channels

- i) Pilotage services
- ii) Lights and lighthouses
- iii) Radar and radio beacons
- iv) Vessel Traffic System (VTS) within port and coastal navigation services around port
- v) Tugs for in-port manoeuvring - number
- vi) Escort tugs for tankers - number
- vii) Bunkering facilities
- viii) Mooring services

**E.I-16. Port hinterland links and short sea shipping**

Availability of short sea shipping and availability and distance to hinterland links from nearest port entrance in kms

- i) Short sea shipping
- ii) Passenger railhead
- iii) Freight railhead
- iv) Motorway access
- v) Inland waterway connections
- vi) Airport

## **II. TRANSPORT EQUIPMENT (VESSEL)**

### **E.II-01. Seagoing vessel**

Floating marine structure with one or more surface displacement hulls.

*Hydrofoil, air cushion vehicles (hovercraft), catamarans (high speed craft), oil rigs, light vessels and seagoing barges are included. Vessels under repair are included. Vessels, which navigate exclusively in inland waterways or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply, are excluded.*

### **E.II-02. Year of construction of vessel**

Year of the completion of construction of a vessel.

### **E.II-03. Year of last major refit or modification**

The year in which a vessel last underwent a major modification or refit affecting its structure.

### **E.II-04. Dry cargo seagoing barge**

This category includes deck barges, hopper barges, lash-seabee barges, open dry cargo barges, covered dry cargo barges and other dry cargo barges.

### **E.II-05. Ship (Boat)**

Seagoing self-propelled surface-displacement vessel.

*Catamarans (High Speed Craft) are included. Hydrofoil, air cushion vehicles (hovercraft), submersibles and submarines are excluded. A seagoing ship actually goes to sea, that is, outside the boundary within which inland waterway technical safety regulations apply, and outside which the ship's operators must satisfy the seagoing regulations.*

### **E.II-06. Merchant ship**

Ship designed for the carriage of goods, transport of passengers or specially fitted out for a specific commercial duty.

*Naval ships and ships used by public administration and public services are excluded. Merchant ships are divided into cargo and passenger carrying ships and ships of miscellaneous activities, specially fitted out for a specific duty. Ships of miscellaneous activities include fish catching and processing ships, tugs, dredgers, research/survey ships, and ships used in offshore production and support.*

*While the following specific types are identified, based on the Eurostat classification (ICST-COM) which is harmonised with the UNCTAD International Classification of Ship Types, barges are treated separately and not included in the definition of a Merchant ship:*

*i) Liquid bulk carrier*

*This category includes oil tankers, chemical tankers, LG tanker, tanker barge and other tankers. Liquid bulk carriers should be further subdivided into*

*(a) Single hulled liquid bulk carriers*

*(b) Double hulled liquid bulk carriers*

- ii) *Dry bulk carrier*  
*This category includes bulk/oil carriers and bulk carriers.*
- iii) *Container ship*  
*Ship fitted throughout with fixed or portable cell guides for the exclusive carriage of containers.*
- iv) *Specialised carrier*  
*Ship specially designed for the carriage of particular cargoes.*  
*This category includes vehicle carrier, livestock carrier, irradiated fuel carrier, barge carrier and chemical carrier.*
- v) *General cargo non-specialised*  
*Ships designed to carry a wide range of goods*  
*This category includes reefer, ro-ro passenger, ro-ro container, other ro-ro cargo, combination carrier general cargo/passenger and combination carrier general cargo/container.*  
*This category should be subdivided into*
  - (a) *High speed general cargo non-specialised meeting the requirements set out in the IMO HSC Code paragraph 1.4.30*
  - (b) *Other general cargo non-specialised*
- vi) *Dry cargo barge*  
*This category includes deck barges, hopper barges, lash-seabee barges, open dry cargo barges, covered dry cargo barges and other dry cargo barges.*
- vii) *Passenger ship*  
*Ship designed specifically to carry more than 12 fare-paying passengers whether berthed or unberthed.*  
*This category should be subdivided into*
  - (c) *High speed passenger ship specialised meeting the requirements set out in the IMO HSS Code paragraph 1.4.30*
  - (d) *Other passenger ships*  
*A ship designed with one or more decks specifically for the carriage of passengers, and where there is either no cabin accommodation for the passengers (un-berthed) or not all of the passengers are accommodated in cabins where cabins are provided, is sometimes referred to as a "ferry".*  
*Ro-Ro passenger ships are excluded.*
- viii) *Fishing*  
*This category includes fish catching and fish processing vessels.*
- ix) *Offshore activities*  
*This category includes drilling and exploration vessels and offshore support vessels.*
- x) *Tugs*  
*Ship designed for the towing and/or pushing of ships or other floating structures.*  
*Port tugs are included.*
- xi) *Miscellaneous*  
*This category includes dredgers, research/survey vessels and other vessels.*  
*For the purposes of reporting to the Directive on Maritime Statistics number 95/64/EC, the ship types included are liquid bulk carriers, dry bulk carriers, container ships, specialised carriers, general cargo non-specialised and passenger ships.*

**E.II-07. Cruise ship**

A passenger ship intended to provide passengers with a full tourist experience. All passengers have cabins. Facilities for entertainment aboard are included.

*Ships operating normal ferry services are excluded, even if some passengers treat the service as a cruise. In addition, cargo carrying vessels able to carry a very limited number of passengers with their own cabins are also excluded. Ships intended solely for day excursions are also excluded.*

**E.II-08. Nationality of registration of seagoing vessel (Flag state)**

Country and/or territory authorising the registry of a seagoing vessel.

*A seagoing vessel is subject to the maritime regulations in respect of manning scales, safety standards and consular representation abroad of its country and/or territory of registration. Some countries e.g. Norway and Denmark provide 'international' or 'open' registers where the requirements are different from those in the 'national' register.*

**E.II-09. Seagoing vessel under national flag**

Seagoing vessel, which is registered in the reporting country.

**E.II-10. Seagoing vessel under foreign flag**

Seagoing vessel, which is, registered in a country other than the reporting country.

**E.II-11. Merchant fleet**

Number of merchant ships over 100 tonnes registered at a given date in a country.

*Changes in the fleet refer to changes in total or within a ship type, in the seagoing fleet of the reporting country, resulting from new construction, modification in type or capacity, transfers to or from a different flag state, scrapping, casualties, or transfer to or from the fluvial register. Vessels under repair are included.*

**E.II-12. Deadweight (DWT)**

The deadweight of a ship is the difference in tonnes between the displacement of a ship on summer load-line in water with a specific gravity of 1,025 and the total weight of the ship, i.e. the displacement in tonnes of a ship without cargo, fuel, lubricating oil, ballast water, fresh water and drinking water in the tanks, usable supplies as well as passengers, crew and their possessions.

**E.II-13. Gross tonnage (GT)**

Gross tonnage is a measure of the size of a ship determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships, 1969.

*Prior to the adoption of the International Convention, the Oslo Convention (1947) was in force, which produced substantially different figures for gross tonnage for some vessels. In some cases, the gross tonnage measure for a vessel is available only on the basis of this earlier convention.*

**E.II-14. Automatic Identification System**

An automatic identification system is a system to:

- Provide information - including the ship's identity, type, position, course, speed, navigational status and other safety related information - automatically to appropriately equipped shore stations, other ships and aircraft;
- Receive automatically such information from similarly fitted ships;
- Monitor and track ships;
- Exchange data with shore-based facilities.

**E.II-15. ISO Freight Container**

An ISO freight container is a unit of transport equipment, which is:

- i) Of a permanent character and accordingly strong enough to be suitable for repeated use;
- ii) Specially designed to facilitate the carriage of goods, by one or more mode of transport, without intermediate reloading;
- iii) Fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;
- iv) So designed as to be easy to fill and empty;
- v) Having a length of 20 feet or more.

*In addition, containers should be stackable and have an internal volume of 1 m<sup>3</sup> or more.*

*Swap bodies are excluded.*

*Although without internal volume, and therefore with no internal volume, flats used in maritime transport should be considered to be a special type of container and therefore are included here.*

*For a fuller description, reference should be made to ISO 668 and 1496.*

**E.II-16. TEU (Twenty-foot Equivalent Unit)**

Standard unit for counting containers of various capacities and for describing the capacities of container ships or terminals. One 20 Foot ISO container (see heading 17 below) equals 1 TEU.

**E.II-17. Sizes of containers**

The main sizes of containers are:

	TEU equivalent
i) 20 Foot ISO containers (length of 20 feet and width of 8 feet);	1
ii) 40 Foot ISO container (length of 40 feet and width of 8 feet);	2
iii) ISO containers over 20 feet and under 40 feet in length	1.5
iv) ISO containers over 40 feet long	2.25

In addition, containers come in a range of standard heights 8 feet, 8½ feet and 9½ feet.

**E.II-18. Types of containers**

The main types of containers, as defined by ISO 668 Standards Handbook on Freight Containers are:

- i) General purpose containers;
- ii) Specific purpose containers.
  - Closed ventilated container;
  - Open top container;
  - Platform based container open sided;
  - Platform based container open sided with complete superstructure;
  - Platform based container open sided with incomplete superstructure and fixed ends;
  - Platform based container open sided with incomplete superstructure and folding ends;

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- Platform (container);
- iii) Specific cargo containers;
  - Thermal container;
  - Insulated container;
  - Refrigerated container - (expendable refrigerant);
  - Mechanically refrigerated container;
  - Heated container;
  - Refrigerated and heated container;
  - Tank container;
  - Dry bulk container;
  - Named cargo container (such as automobile, livestock and others).

### **E.II-19. Swap body**

Carrying unit 2½ metres wide, strong enough for repeated use, but not enough to be top-lifted or stackable more than two deep when loaded, and designed for intermodal transport by road or rail of which at least one leg is by road or rail.

### **E.II-20. Mobile (Ro-Ro) unit**

Wheeled equipment for carrying goods, such as a truck, trailer or semi-trailer, which can be driven or towed onto a vessel. Live animals on the hoof are included.

*Port or ships' trailers are included in this definition.*

*Classifications should follow United Nations ECE Recommendation No 21 'Codes for types of cargo, packages and packaging materials'.*

*Vehicles being transported as cargo as opposed to a means of transport for freight or passengers are excluded.*

### **E.II-21. Ship borne trailers**

Trailers onto which cargo, e.g. pallets, containers etc, is loaded and then wheeled onto Ro-Ro vessels.

*An example of such trailers is MAFI trailers.*

### **E.II-22. Pallet**

Raised platform, intended to facilitate the lifting and stacking of goods.

*Pallets are usually made of wood, and of standard dimensions:  
1000mm X 1200mm (ISO) and 800mm X 1200mm (CEN).*

## **III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT**

### **E.III-01. Transport for hire or reward**

Carriage, for remuneration, of persons or goods on behalf of third parties.

**E.III-02. Transport on own-account**

Transport, which is not for hire or reward.

*Such transport is the movement by an enterprise of its own cargo without any associated financial transaction.*

**E.III-03. Enterprise**

Institutional unit or smallest combination of institutional units that encloses and directly or indirectly controls all necessary functions to carry out its production activities.

*The requirements of an enterprise are that it has one ownership or control. It can, however, be heterogeneous with regard to its economic activity as well as to its location. Even those enterprises without salaried employees are taken into account. Only units that actually carry out an activity during the reference period should be included. "Dormant" units or those that have not as yet begun their activity are excluded.*

**E.III-04. Sea transport enterprise (Shipping firm)**

Enterprise carrying out in one or more places activities for the supply of sea transport services and whose main activities according to value added is sea transport.

*In terms of activity classifications the following classes are involved:*

*ISIC/Rev.3: 6110 - Sea and coastal water transport*

*NACE/Rev.1: 61.10 - Sea and coastal water transport*

*Ship management enterprises which operate merchant ships on behalf of their owners or lease holders are included.*

*Ports, and other units providing supporting and auxiliary transport services are excluded. These fall within the scope of heading 06 below.*

**E.III-05. Public sea transport enterprise**

Sea transport enterprise which is principally owned (more than 50 per cent of the capital) by the State or public authorities and their enterprises.

**E.III-06. Port enterprise**

An enterprise carrying out in one or more places the provision of port services and whose main activity according to value added is port services. Pleasure port enterprises are excluded.

*Port enterprises themselves other than pleasure port enterprises are included. In terms of activity classifications the following classes are involved:*

*ISIC/Rev.3: 6301 - Cargo handling*

*6303 - Other supporting transport activities*

*NACE/Rev.1: 63.11 - Cargo handling*

*63.22 - Support services to water transport*

*Note: NACE 63.22 includes pleasure ports enterprises*

**E.III-07. Public port enterprise**

Port enterprise, which is principally owned (more than 50 per cent of the capital) by the State or public authorities and their enterprises.

**E.III-08. Classification society**

An enterprise which sets standards of design and construction of seagoing vessels and the maintenance of those standards throughout the life of the vessel by survey to secure, for the benefit of the community, high technical standards of design, manufacture, construction, maintenance, operation, and performance, for the purpose of enhancing the safety of life and property at sea.

**E.III-09. Turnover**

Total amount invoiced by an enterprise during the period under review. This total corresponds to market sales of services or goods supplied to third parties. Included in turnover is "other operating income" e.g. income from concessions, patents, trademarks and similar values. Turnover includes all duties and taxes on the goods or services invoiced by the enterprise with the exception of VAT invoiced by the enterprise vis-à-vis its customers. It also includes all other charges to customers. Reductions in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts.

*Turnover includes only ordinary activities and hence does not include sales of fixed assets. Operating subsidies received from public authorities, including the institutions of the European Union, are also excluded.*

**E.III-10. Value added at basic prices**

Value added at basic prices is the turnover of the enterprise, adjusted for any changes in stocks, less purchases of goods and services. Value adjustments such as depreciation are not subtracted.

**E.III-11. Value added at factor cost**

Value added at factor costs is calculated by adjusting value added at basic prices for operating subsidies linked to service provision and duties and taxes linked to service provision.

*Subsidies on payroll and workforce, environmental protection and grants for interest are included in the adjustment. Taxes such excise duty, stamp taxes, taxes on financial and capital transactions, vehicle registration taxes and taxes on insurance premiums for example are included in the adjustment. Investment subsidies and value added tax are excluded from the adjustment.*

**E.III-12. Total purchases of goods and services**

Included are all the goods and services purchased for consumption in service provision or for resale in the same condition as received. Capital goods are excluded.

Among the goods included are materials such as food for on board catering, goods for retail sale on board and elsewhere, packaging products, maintenance and repair materials, office supplies and energy products. Also included are any materials and components for the production of capital goods by the enterprise.

Any services paid for are also included, covering payments to third parties for repair and maintenance, installation and technical studies, legal and accountancy fees, insurance premiums, costs of shareholders meetings and governing bodies, contribution to business and professional bodies, post, telephone and electronic communication, transport services for personnel, advertising, commissions, rents, bank charges (excluding interest) and all other business services provided by third parties.

*Purchases are valued at the purchase price including all taxes and duties except VAT and other taxes linked directly to turnover.*



**E.III-13. Personnel costs**

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

**E.III-14. Payments for long term rental and operational leasing**

Payments for long term rental include all charges arising from the renting of tangible goods for a period greater than one year.

Operational leases are those leases, which do not transfer substantially all the risks and rewards incident to legal ownership to the lessee. Included here will be payments for the operational leasing of goods made available to the enterprise through these contracts, including both the interest payments and the repayment of the principal of the debt.

*Within the maritime industry, terms such as 'charter party', 'voyage charter', 'consecutive voyage charter' and 'long term charter' are used in this context.*

**E.III-15. Value of tangible goods acquired through financial leasing**

A lease is defined as an agreement whereby the lessor conveys to the lessee in return for rent the right to use an item of property for an agreed period of time. A financial lease is one that transfers substantially all the risks and rewards incident to legal ownership of an item of property. The title to the property may or may not be eventually transferred. Included in this variable should be the value (or estimate of the value) of all tangible goods made available for use by the unit by way of a financial leasing contract. The value of the goods used under financial leases should be included for the reference period in which the inception of the lease occurs.

*Annual payments for assets used under financial leasing should be excluded. The value of goods used under leases other than financial ones should also be excluded.*

**E.III-16. Gross investment in tangible goods**

Investment in all tangible goods which include both new and existing capital items, having a useful life of more than one year where non-produced tangible goods such as land are included. All investments are valued prior to value adjustments and before the deduction of income from disposals. Purchased goods are valued at purchase price, i.e. transport and installation charges, fees, taxes and other costs of ownership transfer are included.

*Also included are all additions, alterations, improvements and renovations, which prolong the service life or increase the productive capacity of capital goods.*

*Current maintenance costs are excluded, as is the value and current expenditure on capital goods used under rental and lease contracts. Investment in intangible and financial assets is excluded.*

**E.III-17. Gross investment in buildings, structures and land**

Expenditure on land, new construction, purchase of existing buildings (including the land if relevant), extension of existing infrastructure, including reconstruction, renewal and major repairs.

*Inland waters, harbours and harbour approaches are included.*

### **E.III-18. Gross investment in machinery and equipment, including vessels**

This expenditure covers vessels, machinery (computers etc), vehicles including any special or specialised vehicles used by the enterprise. Included in the total are all additions, alterations, improvements and renovations, which prolong the service life or increase the productive capacity of these capital goods.

*Current maintenance costs are excluded.*

### **E.III-19. Sales of tangible investment goods, including vessels**

The value of existing tangible capital goods including vessels sold to third parties. Sales are recorded at the actual price received, not at book value, after deducting the costs of any ownership transfer incurred by the seller.

*Value adjustments and disposals other than by sale are excluded.*

### **E.III-20. Employment**

Employment is the number of persons employed, i.e. the total number of persons who work in the enterprise (inclusive of working proprietors, partners working regularly in the enterprise and unpaid family workers), as well as persons who work outside the enterprise who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It includes persons absent for a short period (e.g. sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. It also includes part-time workers who are regarded as such under the laws of the country concerned and who are on the pay-roll, as well as seasonal workers, apprentices and home workers on the pay-roll.

The number of persons employed excludes manpower supplied to the enterprise by other enterprises, persons carrying out repair and maintenance work in the enquiry enterprise on behalf of other enterprises, as well as those on compulsory military service. On the other hand, persons who are at the disposal of an enterprise for commercial reasons on the basis of a long term contract (i.e. sales promotion personnel on passenger ferries) should be included as employees of the enterprise where they work rather than in the enterprise with whom they have their employment contract.

*Unpaid family workers refer to persons who live with the proprietor of the enterprise and work regularly for the enterprise, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another enterprise as their principal occupation.*

*The number of persons employed corresponds to the number of jobs as defined in the European System of Accounts 1995 (ESA) and is measured as an annual average.*

### **E.III-21. Employment category - sea transport enterprise staff**

Employment for a sea transport enterprise is categorised as follows:

- i) Officers
- ii) Ratings
- iii) Cadets and other trainees
- iv) Other vessel based staff including restaurant and entertainment staff
- v) Shore based staff engaged in management, sales, passenger and cargo handling etc

**E.III-22. Employment category - port enterprise staff**

Employment for a port enterprise is categorised as follows:

- i) Port management and administration staff
- ii) Pilots and other ship based staff
- iii) Dock workers
- iv) Technical and maintenance personnel
- v) Other

**IV. TRAFFIC**

**E.IV-01. Sea traffic**

Any movement of a seagoing vessel at sea.

*One port traffic (movements of seagoing vessels to offshore installations, or for dumping at sea, or traffic from the sea bed to ports) is included.*

*Fluvio-maritime movements of seagoing vessels are included. Movements on inland waterways between seaports and inland waterway ports are excluded and are included in inland waterway traffic. Movements of seagoing vessels internally, between different basins or docks of the same port, are excluded.*

**E.IV-02. Scheduled sea traffic (liner traffic)**

A service provided by sea vessels scheduled and performed according to a published timetable, or so regular or frequent as to constitute a recognisably systematic series.

**E.IV-03. Unscheduled sea traffic**

Sea traffic other than scheduled sea traffic.

**E.IV-04. Sea journey**

Sea traffic from a specified point of origin to a specified point of destination.

*A journey can be divided into a number of stages or sections. One port journeys from a sea port to an offshore installation or a location at sea are included. In the maritime context, sea journeys are also referred to as voyages or sea voyages.*

**E.IV-05. Sea stage**

A sea stage is the movement of a vessel direct from one port to another without a port call at an intermediate port.

**E.IV-06. Cargo journey**

A sea journey involving the movement of cargo, between a place of loading or embarkation and a port of unloading or disembarkation.

*A sea journey may involve calls at a number of ports between the specified point of origin and the specified point of destination and encompass a number of cargo journeys with the loading and unloading of cargo at a number of ports.*

**E.IV-07. Port-to-port distance**

For statistical purposes, the port-to-port distance is the actual distance sailed

*An estimate of the actual distance can be provided.*

**E.IV-08. Vessel-kilometre**

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

*The distance taken into account is the distance actually travelled. Movements of unladen vessels are included.*

**E.IV-09. Port call by a merchant ship**

A merchant ship makes a port call when it anchors or berths to load or unload cargo, to embark or disembark passengers or to facilitate excursions by passengers.

*Anchorage, without any cargo or passenger movements, and traversing the port are excluded.*

**E.IV-10. Bunker call**

A cargo and passenger ship makes a bunker call when it anchors or berths in a port to take on bunker oil or supplies.

**E.IV-11. Other calls**

Calls at a port by a cargo and passenger ship other than port calls or bunker calls.

**E.IV-12. Arrival of a merchant ship**

The arrival of any merchant ship making a port call in the territory of the reporting country.

**E.IV-13. Departure of a merchant ship**

The departure of any merchant ship after making a port call in the territory of the reporting country.

**E.IV-14. Merchant ship laid up**

A merchant ship is laid up when it is moored in port because of lack of work.

**E.IV-15. Port state control**

The inspection in port by the state in which the port is situated of merchant ships to monitor their seaworthiness.

**E.IV-16. Detention under port state control**

The detention in port under port state control of a merchant ship found to be unseaworthy.

## V. TRANSPORT MEASUREMENT

### E.V-01. Sea transport

Any movement of goods and/or passengers using merchant ships on journeys, which are undertaken wholly or partly at sea.

*One port transport (movements of goods shipped to offshore installations, or for dumping at sea, or reclaimed from the sea bed and unloaded in ports) is included. While bunkers and stores supplied to vessels in port are excluded, bunker oil shipped to vessels offshore is included.*

*Fluvio-maritime movements of goods by merchant ships are included. Movements of goods on inland waterways vessels between seaports and inland waterway ports are excluded. (They are included in inland waterway transport). Movements of goods carried internally between different basins or docks of the same port are excluded.*

### E.V-02. Commercial sea transport

Sea transport undertaken for commercial purposes either for payment (i.e. hire and reward) or on the enterprise's own account as part of a wider economic activity.

### E.V-03. National sea transport

Sea transport between two ports of a national territory or one port sea transport within national territory.

*In the maritime context, national sea transport is also known as cabotage. National sea transport can be performed by a merchant ship registered in the reporting country or in another country.*

### E.V-04. International sea transport

Sea transport other than national sea transport.

*International one port transport is included.*

### E.V-05. Cross-trade sea transport

International sea transport between two countries performed by a merchant ship registered in a third country.

*A third country is a country other than the country of loading/embarkation or the country of unloading/diseembarkation.*

### E.V-06. European short sea shipping

Movement of cargo by sea between ports situated in Europe as well as between ports in Europe and ports situated in non-European countries having a coastline on the enclosed seas bordering Europe.

*Included in the enclosed seas bordering Europe are the Mediterranean, the Baltic and the Black Seas. Traffic to and from ports in Iceland is also included.*

**E.V-07. Deep sea shipping (Europe only)**

Transport of cargo by sea other than European short sea shipping.

**E.V-08. Unitised transport**

Unitised transport is the carriage of cargo in intermodal transport units such as containers or mobile (Ro-Ro) units.

*Transport in swap bodies is included.*

**E.V-09. Non-unitised transport**

Transport other than unitised transport.

*Such transport includes liquid and dry bulk transport, forest products and general cargo.*

**E.V-10. Tonne-kilometre**

Unit of measure representing the movement of one tonne of cargo in a merchant ship over one kilometre.

**E.V-11. Tonne-kilometre offered**

A tonne-kilometre is offered when one tonne of carrying capacity in a merchant ship is sailed over one kilometre. Tonne-kilometres offered are equal to the cargo carrying capacity of the vessel multiplied by the port-to-port distance for all journeys. Transport in barges is included.

**E.V-12. Tonne-kilometres performed**

Tonne-kilometres performed is calculated as the sum over all journeys of the product of the total number of tonnes of freight load carried and the port-to-port distance for each journey.

**E.V-13. Freight capacity utilisation**

Tonne-kilometres performed expressed as a percentage of tonne kilometres offered.

**E.V-14. Tonnes on board**

Tonnes of cargo on board a merchant ship on arrival at or departure from a port.

**E.V-15. TEU-kilometre**

Unit of measurement representing the movement of one TEU over one kilometre.

**E.V-16. TEU-kilometre offered**

A TEU-kilometre offered is the movement of one TEU of capacity in a container ship over one kilometre. TEU-kilometres offered are equal to the TEU carrying capacity of the vessel multiplied by the port-to-port distance for all journeys.

*The TEU carrying capacity will be the stated capacity recorded in the register of the classification society.*

**E.V-17. TEU-kilometres performed**

TEU-kilometres performed is calculated as the sum over all journeys of the product of the total number of TEUs carried and the port-to-port distance for each journey.

**E.V-18. TEU capacity utilisation**

TEU-kilometres performed expressed as a percentage of TEU kilometres offered.

**E.V-19. TEUs on board**

The TEUs on board a merchant ship on arrival at or departure from a port.

**E.V-20. Sea passenger**

Any person who makes a sea journey on a merchant ship.

*Service staff assigned to merchant ships are not regarded as passengers. Non-fare paying crew members travelling but not assigned and infants in arms are excluded.*

**E.V-21. Cruise passenger**

A sea passenger making a sea journey on a cruise ship.

*Passengers on day excursions are excluded.*

**E.V-22. Sea passenger journey**

The movement of a passenger from the port at which the journey begins to the port at which it ends. For some passengers, notably cruise passengers, this can be the same port.

*The distance to be taken into consideration is the distance actually travelled by the passenger.*

**E.V-23. Passenger-kilometre**

Unit of measure representing the movement of one passenger in a merchant ship over one kilometre.

**E.V-24. Passenger-kilometre offered**

A passenger-kilometre is offered when one unit of passenger capacity is sailed one kilometre.

*Passenger-kilometres offered are equal to the sum of the products obtained by multiplying the authorised passenger capacity of the vessel and the port-to-port distance for all journeys. The passenger carrying capacity will be the stated capacity recorded in the register of the classification society.*

**E.V-25. Passengers on board**

The number of passengers on board a merchant ship on arrival at or departure from a port.

**E.V-26. Passenger-kilometres performed**

The sum of the products obtained by multiplying the number of sea passengers carried on each journey by the port-to-port distance.

**E.V-27. Passenger capacity utilisation**

Passenger-kilometres performed expressed as a percentage of passenger kilometres offered.

**E.V-28. Purpose of a sea passenger journey**

The reasons for undertaking a journey are:

- i) Work and education (Commuting)
- ii) Business
- iii) Holidays (vacation)
- iv) Other (Shopping, leisure, family)

**E.V-29. Sea passenger embarked**

Passenger who boards a merchant ship to undertake a sea passenger journey.

*A transfer from one merchant ship to another is regarded as embarkation after disembarkation. Cruise passengers on a cruise passenger excursion are excluded.*

**E.V-30. Sea passenger disembarked**

A passenger disembarking from a merchant ship at the end of a sea passenger journey.

*A transfer from one merchant ship to another is regarded as disembarkation before re-embarkation. Cruise passengers on a cruise passenger excursion are excluded.*

**E.V-31. Cruise passenger excursion**

A short visit by a cruise passenger to a tourist attraction associated with a port while retaining a cabin on board.

**E.V-32. Sea passenger transport link**

Combination of the port of embarkation and the port of disembarkation of the passenger conveyed by sea whatever itinerary is followed.

*These ports are maritime ports (except for fluvio-maritime transport for which they may be inland waterway ports), coded with international classification systems such as UN-LOCODE (codification for ports and other places).*

*Those ports can be grouped according to their geographical location by using international classification systems such as NUTS (Nomenclature for Territorial Units for Statistics - Eurostat). Where the port of embarkation and disembarkation are the same, no sea transport link is implied.*



**E.V-33. Port of embarkation**

The port in which a passenger started a journey.

*A transfer from one merchant ship to another is regarded as embarkation after disembarkation. Cruise passengers on a cruise passenger excursion are excluded.*

**E.V-34. Port of disembarkation**

The port in which a passenger ends a journey.

*A transfer from one merchant ship to another is regarded as disembarkation before re-embarkation. Cruise passengers on cruise passenger excursion are excluded.*

**E.V-35. Goods carried by sea**

Any goods conveyed by merchant ships.

*This includes all packaging and equipment such as containers, swap-bodies, pallets or road goods vehicles.*

*Mail is included; goods carried on or in wagons, lorries, trailers, semi-trailers or barges are also included. Conversely, the following items are excluded: road passenger vehicles with drivers, returning empty commercial vehicles and trailers, bunkers and stores of vessels, fish carried in fishing vessels and fish-processing ships, goods carried internally between different basins or docks of the same port.*

**E.V-36. Types of cargo**

Freight cargo can be classified in terms of both the design of the vessel itself and the handling equipment required at ports and on the vessel. The principal categories are

- i) Liquid bulk
- ii) Dry bulk
- iii) Containers
- iv) Roll-on/Roll-off (self-propelled)
- v) Roll-on/Roll-off (non-self-propelled)
- vi) Other general cargo

**E.V-37. Lo-Lo (Lift-on Lift-off)**

Loading/unloading by the vessel's own derricks/cranes or by shore based cranes.

**E.V-38. Container Cargo**

Container cargo consists of containers with or without freight, which are lifted on or off the vessels, which carry them by sea.

**E.V-39. Ro-Ro (Roll-on Roll-off)**

Loading/unloading through the vessel's doors/ramps by a wheeled means of conveyance.

*Loading or unloading live animals on the hoof is included.*

### **E.V-40. Ro-Ro Cargo**

Ro-Ro cargo consists of goods, whether or not in containers, on ro-ro units, and ro-ro units, which are rolled on and off the vessels, which carry them, by sea.

### **E.V-41. Gross-Gross Weight of goods**

This includes the total weight of the goods, all packaging, and the tare weight of the transport unit.

### **E.V-42. Gross Weight of goods**

This includes the tonnage of goods carried, including packaging but excluding the tare weight of transport units.

### **E.V-43. Tare Weight**

The weight of a transport unit (e.g. containers, swap-bodies and pallets for containing goods as well as road goods vehicles, wagons or barges carried by sea) before any cargo is loaded.

### **E.V-44. Categories of goods carried by sea**

The categories of goods carried by sea are those defined by the NST (Standard Goods Nomenclature for Transport Statistics - Eurostat) or CSTE (UNECE Commodity Classification for Transport Statistics in Europe) nomenclatures.

### **E.V-45. Dangerous goods**

The classifications of dangerous goods are those defined by chapter VII of the International Convention for the Safety of Life at Sea (SOLAS, 1974), as amended and as detailed in the International Maritime Dangerous Goods (IMDG) code.

### **E.V-46. Ship to ship transshipment**

The unloading of cargo from one merchant ship and its loading into another to complete a journey, even where the cargo may have dwell time ashore before its onward journey.

*Transshipment to other modes is excluded.*

### **E.V-47. Goods loaded**

Goods placed on a merchant ship for transport by sea.

*Transshipment from one merchant ship to another is regarded as loading after unloading. Goods loaded include national goods, transshipment goods (national or foreign goods arriving in port by sea) and land transit goods (foreign goods arriving in port by road, rail, air or inland waterway).*

**E.V-48. Goods unloaded**

Goods taken off a merchant ship.

*Transshipment from one merchant ship to another is regarded as unloading before re-loading.*

*Goods unloaded include national goods, transshipment goods (national or foreign goods leaving a port by sea) and land transit goods (foreign goods leaving a port by road, rail, air or inland waterway).*

**E.V-49. Goods sea transport link**

The combination of the port of loading and the port of unloading of the goods transported by sea whatever itinerary is followed.

*Those ports are maritime ports (except for fluvio-maritime transports for which it may be inland waterway ports), coded with international classification systems such as UN-LOCODE (codification for ports and other places).*

*Those ports can be grouped according to their geographical location by using international classification systems such as NUTS (Nomenclature for Territorial Units for Statistics - Eurostat).*

**E.V-50. Port of loading**

The port at which a consignment of goods was loaded onto the ship from which it is unloaded at the reporting port.

*Transshipments from one merchant ship to another are regarded as loading after unloading.*

**E.V-51. Port of unloading**

The port at which a consignment of goods, loaded onto a ship at the reporting port, is to be unloaded from the same ship.

*Transshipments from one merchant ship to another are regarded as unloading before re-loading.*

**VI. ENERGY CONSUMPTION****E.VI-01. Energy consumption by merchant ships**

Final energy consumption by ships.

*This includes final energy consumption by unladen ships.*

**E.VI-02. Tonne of oil equivalent (TOE)**

Unit of measurement of energy consumption (1 TOE = 0.041868 terajoule (TJ)).

*Conversion factors adopted by the International Energy Agency (IEA) are as follows:*

- |                           |              |
|---------------------------|--------------|
| <i>i) Gas/diesel oil</i>  | <i>1.035</i> |
| <i>ii) Heavy fuel oil</i> | <i>0.960</i> |

**E.VI-03. Joule**

Unit of measurement of energy consumption.

*1 terajoule =  $10^{12}J = 2.78 \times 10^5 kWh$*

*1 terajoule = 23.88459 TOE*

**E.VI-04. Gas/diesel oil (distillate fuel oil)**

Oils obtained from the lowest fraction from atmospheric distillation of crude oil.

*Gas/diesel oils include heavy gas oils obtained by vacuum re-distillation of the residual from atmospheric distillation. Gas/diesel oil distils between 200°C and 380°C, with less than 65 per cent in volume at 250°C, including losses, and 80 per cent or more at 350°C. Heavy oils obtained by blending are grouped together with gas oils, provided that their kinematic viscosity does not exceed 25 cST at 40°C.*

*Calorific value: 43.3 TJ/1 000 t.*

**E.VI-05. Heavy fuel oil (residual)**

Heavy oil that makes up the distillation residue.

*This comprises all residual fuel oils (including those obtained by blending). The viscosity of heavy fuel oil is above 25 cST at 40° C. The flashpoint is always above 50° C and their density is higher than 0.90.*

**F**

**INTERMODAL TRANSPORT**

## **F.I. INTRODUCTION**

### **F.I-01. Intermodal transport**

Movement of goods (in one and the same loading unit or a vehicle) by successive modes of transport without handling of the goods themselves when changing modes.

*Vehicle can be a road or rail vehicle or a vessel.*

*The return movement of empty containers/swap bodies and empty goods road vehicles/trailers are not themselves part of intermodal transport since no goods are being moved. Such movements are associated with intermodal transport and it is desirable that data on empty movements be collected together with data on intermodal transport.*

#### *Multimodal Transport*

\* European Conference of Ministers of Transport (ECMT) defines multimodal transport as the "carriage of goods by at least two different modes of transport". Intermodal transport is therefore a particular type of multimodal transport.

\* United Nations Convention on International Multimodal Transport of Goods defines international multimodal transport as "the carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery in a different country;"

#### *Combined Transport*

\* UNECE used the term combined transport as being identical to the definition for intermodal transport described above, but recently has taken account of the ECMT-definition for combined transport given below.

\* According to the rules of application of the ECE/FAL Recommendation No.19 "Code for Modes of Transport" the definition is: "Combined transport: Combination of means of transport where one (passive) transport means is carried by another (active) means which provides traction and consumes energy";

\* For transport policy purposes the ECMT restricts the term combined transport to cover: "Intermodal transport where the major part of the European journey is by rail, inland waterways or sea and any initial and/or final leg carried out by road are as short as possible".

### **F.I-02. (Active mode)/(Passive mode) transport**

Transport of goods using two modes of transport in combination, where one (passive) transport means is carried on another (active) transport means which provides traction and consumes energy (rail/road transport, sea/road transport, sea/rail transport...).

*Piggy-back transport is the synonym for rail/road transport.*

### **F.I-03. Active mode/Road accompanied transport**

Transport of a complete goods road motor vehicle, accompanied by the driver, by another mode of transport (for example by sea or rail).

**F.I-04. Active mode/Road unaccompanied transport**

Transport of goods road motor vehicles or trailers, not accompanied by the driver, by another mode of transport (for example by sea or rail).

**F.I-05. Transport of containers or swap bodies (by active mode)**

Carriage of containers or swap bodies by an active mode of transport.

**F.II. EQUIPMENT**

**F.II-01.Loading unit**

Container, swap body.

*“Flats”, which are used in maritime transport, should be considered to be a special type of container and are therefore included here.*

**F.II-02.Intermodal transport unit (ITU)**

Container, swap body or semi-trailer/goods road motor vehicle suitable for intermodal transport.

**F.II-03.Container**

Special box to carry freight, strengthened and stackable and allowing horizontal or vertical transfers.

The technical definition of the container is: "Article of transport equipment which is:

- a) of a permanent character and accordingly strong enough to be suitable for repeated use;
- b) specially designed to facilitate the carriage of goods, by one or more mode of transport, without intermediate reloading;
- c) fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another;
- d) so designed as to be easy to fill and empty;
- e) stackable; and,
- f) having an internal volume of 1 m<sup>3</sup> or more."

*Swap bodies are excluded.*

*Although without internal volume, and therefore not satisfying criterion (f) above, flats used in maritime transport should be considered to be a special type of container and therefore are included here.*

**F.II-04.Sizes of containers**

The main sizes of containers are:

- a) 20 Foot ISO container (length of 20 feet and width of 8 feet);
- b) 40 Foot ISO container (length of 40 feet and width of 8 feet);
- c) Super high cube container (oversize container); and
- d) Air container (container conforming to standards laid down for air transportation).

*Containers sizes classified under a) to c) are referred to as large containers.*

**F.II-05.Types of containers**

The main types of containers, as defined by ISO Standards Handbook on Freight Containers are:

1. General purpose containers;
2. Specific purpose containers.
  - closed ventilated container;
  - open top container;
  - platform based container open sided;
  - platform based container open sided with complete superstructure;
  - platform based container open sided with incomplete superstructure and fixed ends;
  - platform based container open sided with incomplete superstructure and folding ends;
  - platform (container);
3. Specific cargo containers;
  - thermal container;
  - insulated container;
  - refrigerated container - (expendable refrigerant);
  - mechanically refrigerated container;
  - heated container;
  - refrigerated and heated container;
  - tank container;
  - dry bulk container;
  - named cargo container (such as automobile, livestock and others); and,
  - air mode container.

**F.II-06. TEU (Twenty-foot Equivalent Unit)**

Standard unit for counting containers of various capacities and for describing the capacities of container ships or terminals. One 20 Foot ISO container equals 1 TEU.

*One 40 Foot ISO container equals two TEU.*

**F.II-07.Swap body**

Carrying unit strong enough for repeated use, but not enough to be top-lifted or stackable when loaded, designed for intermodal transport of which one leg is road.



### **F.II-08.Flat**

A loadable platform having no superstructure whatever but having the same length and width as the base of a container and equipped with top and bottom corner fittings.

*This is an alternative term used for certain types of specific purpose containers - namely platform containers and platform-based containers with incomplete structures.*

### **F.II-09.Pallet**

Raised platform, intended to facilitate the lifting and stacking of goods.

*Pallets are usually made of wood, and of standard dimensions: 1000mm X 1200mm (ISO) and 800mm X 1200mm (CEN).*

### **F.II-10.Wagon for intermodal transport**

Wagon specially built or equipped for the transport of intermodal transport units (ITUs) or other goods road vehicles.

### **F.II-11.Ro-Ro unit**

Wheeled equipment for carrying goods, such as a lorry, trailer or semi-trailer, which can be driven or towed onto a vessel or train.

*Port or vessels' trailers are included in this definition.*

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  - Dumb tanker - C.II-13
  - Pushed - C.II-14
  - Pushed tanker - C.II-15
  - Pushed-towed - C.II-16

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  - Self-propelled pusher - C.II-09
  - Self-propelled pusher tanker - C.II-10
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  - fleet C.II-06
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  - passenger: see Passenger
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- Joule C.VI-03
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  - lake C.I-05
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  - Oil pipeline - D.III-02
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    - of oil equivalent D.VI-02
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Transport  
  - of containers or swap bodies (by active mode) F.I-05  
  Active mode/Passive mode - F.I-02  
  Active mode/road accompanied - F.I-03  
  Active mode/Road unaccompanied - F.I-04  
  Combined transport F.I-01  
  Intermodal - F.I-01  
  Intermodal - unit F.II-02  
  Multimodal - F.I-01  
  Wagon for intermodal - F.II-10  
Twenty-foot Equivalent Unit F.II-06  
Types of containers F.II-05  
Unit  
  Intermodal transport - F.II-02  
  Loading - F.II-01  
  Ro-Ro - F.II-11  
  Twenty-foot Equivalent - F.II-06  
Wagon for intermodal transport F.II-10