GLOSSARY FOR TRANSPORT STATISTICS

Document prepared by the Intersecretariat Working Group on transport statistics EUROSTAT, ECMT, UN/ECE

Second edition
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INTRODUCTION

In February 1991 an Intersecretariat Working Group on Transport Statistics was set up by the EUROSTAT, ECMT and UN/ECE secretariats. Its aim was to harmonize and, if possible, standardize transport statistics at international level with a view to ensuring comparability of data published by EUROSTAT, ECMT and UN/ECE, to streamline data collecting procedures at international level and to reduce the effort of national statistical offices in providing data for the three organizations.

As a first step, the Intersecretariat Working Group, assisted by a number of the international organizations concerned (such as International Union of Railways, International Road Transport Union, International Road Federation, etc.), established common standard definitions for terms used in transport statistics, based on the three existing glossaries of statistical terms in transport issued by EUROSTAT, ECMT and UN/ECE.

The second edition of this common glossary of standard terms presented in this booklet covers infrastructure, transport equipment, transport enterprises, traffic, transport measurement and energy consumption in the fields of Rail, Road, Inland Waterway, Oil Pipeline, Maritime and Intermodal transport statistics. After consultations with member countries of the three organizations, it has been amended and then agreed by the Intersecretariat Working Group.

One of the aims of the glossary was to provide common standard definitions for statistical questionnaires of the three organizations.

Work will continue on definitions of accidents, prices and market indicators, and environment and they will be included in the future editions of the glossary which will also be enlarged to cover the other modes of transport.

Notice

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

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A

RAILWAY TRANSPORT
Urban and suburban rail transport, as well as metro (underground) transport which is not part of the main national network and is not organized by the principal railway enterprise (see page 15 definition 1) is excluded, unless otherwise specified.

I. INFRASTRUCTURE

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.

02. 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 during the season 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.

03. Track

A pair of rails over which railway vehicles can run.

04. 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 (VR, SZR) 1.600 m (CIE, NIR) 1.668 m (RENFE, CP)
- Narrow gauge: 0.60 m, 0.70 m, 0.75 m, 0.76 m, 0.785 m, 0.90 m, 1.00 m.

05. Rail loading gauge

The profile above the rail tracks through which a rail vehicle must pass.

The main categories are : A, B, B+ and C.

06. Running track

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

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

08. **Sidings**

Tracks branching off running tracks.

*The length of sidings is included in the length of tracks if the sidings belong to the railway system concerned, private sidings being excluded.*

09. **Private siding**

Track or set of tracks which do not belong to the railway enterprise but are linked up with the track of a railway enterprise so that an industrial, commercial or port, etc. establishment or group of establishments can be served by rail without transhipment.

10. **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.

11. **Average length of line operated throughout the year**

The length of line used for traffic throughout the reported year (including lines operated jointly with other railway enterprises) plus the average length of lines opened or closed during the year (weighted by the number of days they have been operated).

*The total length of line operated is the length operated for passenger or goods transport, or both. When a line is operated simultaneously by several enterprises it will be counted only once.*

12. **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.

13. **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

14. **Maximum operating speed**

The highest speed allowed on commercial service taking into account technical characteristics of the infrastructure.
II. TRANSPORT EQUIPMENT (VEHICLE)

01. Railway vehicle

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

The following vehicles are included in the statistics for a principal railway enterprise:

a) All railway vehicles belonging to the principal railway enterprise 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 system and vehicles of the enterprise temporarily engaged in the normal course of running abroad, or upon secondary railway enterprises network.

b) Private owners’ wagons, i.e. those not belonging to the principal railway enterprise but registered on it and authorized to run on it under specified conditions, together with wagons hired out by the railway enterprise to private persons and being operated as private owners’ wagons.

Statistics for a principal railway enterprise exclude vehicles not at its disposal, i.e.

a) Foreign or secondary railway enterprise vehicles temporarily on railway lines of the principal railway enterprise in the normal course of running.

b) Vehicles which are on hire to, or otherwise at the disposal of, or other railway enterprises.

c) Vehicles reserved exclusively for service transport, or intended for sale, braking-up or condemning.

02. 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").

03. Locomotive

Railway vehicle equipped with prime mover and motor or with motor only used for hauling railway vehicles.

Only vehicles with a power of 110 kW and above at the draw hook are classed as locomotives; vehicles with less power being described as "light rail motor tractors" are excluded. Light rail motor tractor is low power tractive unit used for shunting or for work trains and short-distance or low-tonnage terminal services.

The special non-passenger tractive units for high speed trains are included, even when these vehicles are part of an indivisible set.
04. **Steam locomotive**

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

05. **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.

06. **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.

07. **Railcar**

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.

*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.*

08. **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.*

09. **Coach**

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

10. **Railcar trailer**

Passenger railway vehicle coupled to one or more railcars.

11. **Carrying capacity of passenger vehicle**

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

12. **Van**
Railway vehicle without motor 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 carriages. Mail vans, belonging to railway enterprises, are included under vans when they do not have a passenger compartment.*

13. **Wagon**

Railway vehicle normally intended for the transport of goods.

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

14. **Privately-owned wagon**

Private owners' wagons, i.e. not belonging to the principal railway enterprise, but registered on and authorized to run on it under specified conditions, together with wagons hired out by the railway enterprise to third parties (private persons), and being operated as private owners' wagons.

15. **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 and refrigerated are included.*

16. **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:

\[
I_N = \text{Normally insulated equipment} \quad \text{characterized by a K coefficient equal to or less than} \quad 0.7 \text{ W/m}^2 \text{oC}
\]

\[
I_R = \text{Heavily insulated equipment} \quad \text{characterized by a K coefficient equal to or less than} \quad 0.4 \text{ W/m}^2 \text{oC}
\]

17. **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\(^\circ\) C, of lowering the temperature inside the empty body to, and thereafter maintaining it :

- at + 7\(^\circ\) C maximum in the case of class A;
- at -10\(^\circ\) C maximum in the case of class B;
- at -20\(^\circ\) C maximum in the case of class C; and
- at 0\(^\circ\) C maximum in the case of class D,

with the aid of appropriate refrigerants and fittings.*
18. **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 \(+30^\circ\text{C}\), of lowering the temperature inside the empty body to, and thereafter maintaining it continuously in the following manner at any desired practically constant value \(t_1\) in conformity with the standards defined below for the three classes:*

**Class A.** Mechanically refrigerated wagon fitted with a refrigerating appliance such that \(t_1\) may be chosen between \(+12^\circ\text{C}\) and \(0^\circ\text{C}\) inclusive.

**Class B.** Mechanically refrigerated wagon fitted with a refrigerating appliance such that \(t_1\) may be chosen between \(+12^\circ\text{C}\) and \(-10^\circ\text{C}\) inclusive.

**Class C.** Mechanically refrigerated wagon fitted with a refrigerating appliance such that \(t_1\) may be chosen between \(+12^\circ\text{C}\) and \(-20^\circ\text{C}\) inclusive.

19. **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 \(+12^\circ\text{C}\) 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 \(-10^\circ\text{C}\); and,

**Class B.** Heated equipment for use when the mean outside temperature is \(-20^\circ\text{C}\).

20. **High sided wagon**

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

21. **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.*

22. **Tank wagon**

Wagon designed for the bulk transport of liquids or gases.

23. **Silo wagon**

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

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

III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT

01. Principal railway enterprise

Enterprise owning and/or operating the largest network(s) in the country.

*The following are considered as principal enterprises:*

- **Albania:**
- **Armenia:**
- **Austria:** Austrian Federal Railways (OBB)
- **Azerbaijan:**
- **Belarus:** Belarus Railways (BC)
- **Belgium:** Belgian National Railway Company (SNCB/NMBS)
- **Bosnia and Herzegovina:** Bosnian Railways (ZBH)
- **Bulgaria:** Bulgarian State Railways (BDZ)
- **Canada:** Canadian Pacific (CP)
- **Croatia:** Croatian Railways (HZ)
- **Czech Republic:** Ceske Drahy (CD)
- **Denmark:** Danish State Railways (DSB)
- **Estonia:**
- **Finland:** Finnish State Railways (VR)
- **France:** French National Railway Company (SNCF)
- **Georgia:**
- **Germany:** German Federal Railway, German State Railway (DB)
- **Greece:** Hellenic Railways Organisation (CH)
- **Hungary:** Hungarian State Railways (GYSEV/ROEE)
- **Ireland:** Irish Transport Company (CIE)
- **Israel:**
- **Italy:** Italian State Railways (FS)
- **Kazakhstan:**
- **Kyrgyzstan:**
- **Latvia:** Latvian State Railways (LDZ)
- **Lithuania:** Lithuanian Railways (LG)
- **Luxembourg:** Luxembourg National Railway Company (CFL)
- **Netherlands:** Netherlands Railways (NS)
- **Norway:** Norwegian State Railways (NSB)
- **Poland:** Polish State Railways (PKP)
- **Portugal:** Portuguese Railways (CP)
- **Republic of Moldova:**
- **Romania:** Rumanian Railways (CFR)
- **Russian Federation:** Ministry of the Railways of the Russian Federation
Railway Transport

Slovak Republic: Zeleznice Slovenskej Republiky (ZSR)
Slovenia: Slovenian Railways (SZ)
Spain: Spanish National Railway System (RENFE)
Sweden: Swedish State Railways (SJ)
Switzerland: Swiss Federal Railways (CFF)
Tajikistan:
The former Yugoslav Republic of Macedonia:
Turkey: Turkish Republic State Railways (TCDD)
Turkmenistan:
Ukraine: Ukrainian Railways (UZ)
United Kingdom: British Railways (BR), Northern Ireland Railways (NIR)
USA: Association of American Railroads (AAR)
Uzbekistan:
FR Yugoslavia: Yugoslav Railways (JZ)

Urban services operated by principal railway enterprises are included.

02. Secondary railway enterprise

Railway enterprise other than principal which carries out transport operations for the public.

Lines solely used for turistic purposes during the season are excluded as are railways constructed solely to serve mines, forests or other industrial or agricultural undertakings. Urban services operated by secondary railway enterprises are included.

03. Urban railway enterprise

Railway enterprise wholly operating urban, suburban or similar lines within the boundaries of one or more built-up areas.

Data on such enterprises must be separated from data on principal and secondary enterprises.

04. Employment

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

Statistics should include the staff employed for performing all principal and ancillary activities of the enterprise (railway operation, renewal, new construction, road and shipping services, electricity generation, hotels and restaurants etc.).

05. Types of employment

All class I line-haul railway enterprises account for some 83 per cent of total route miles and 97 per cent of freight carryings. The statistics should also take account of the operation and traffic of the National Railroad Passenger Corporation (AMTRAK) and the Auto-Train Corporation. The former is responsible for the greater part of inter-city train service on US railways, while the sole function of the latter is to carry passengers and their motor-cars on a non-stop service between Washington D.C. and Sanford, Florida.

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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, train crews (excluding locomotive crews) and associated central and regional offices. Includes tourism and advertising.*

-- Traction and rolling stock
*Locomotive crews, workshop, inspection staff and associated central and regional offices.*

-- Way and works
*Permanent way maintenance and supervision staff.*

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

06. Turnover

Total amount invoiced by the railway 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. 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.*

07. Revenues

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

08. 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.*
09. Costs

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

10. 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.

11. Value added

Gross output of the railway enterprise less the value of its intermediate consumption. Value added of domestic production of all railway 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.*

12. Tangible investment

The outlay (purchases and own account production) of railway 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 railway enterprises 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.*

13. 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.*
14. **Investment expenditures on rolling stock**
   Expenditure for purchase of the new railway vehicles.

15. **Maintenance expenditure on infrastructure**
   Expenditure for keeping infrastructure in working order.

16. **Maintenance expenditure on rolling stock**
   Expenditure for keeping railway vehicles in working order

IV. TRAFFIC

01. **Railway traffic**
   Any movement of a railway vehicle on lines operated.

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

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.)

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.

04. **Railway 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.*

05. **Train**
   One or more railway vehicles hauled by one or more locomotives or railcars, or by one railcar 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.*

06. **Types of train**
   The main categories being considered are:
-- Goods train: Train made up 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 enterprise, which involve no commercial traffic.

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._

08. Tractive vehicle-kilometre

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

_Ttractive vehicles running light and shunting are included._

09. Hauled vehicle-kilometre

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

_Railcars movement are included. Shunting movements are excluded._

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._

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._

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._

13. Gross-gross tonne-kilometre hauled
Unit of measure representing the movement over a distance of one kilometre of one tonne of rail vehicle including the weight of tractive vehicle.

*Weight of vehicle, of its load and tractive unit are all included.*

14. **Gross tonne-kilometre hauled**

Unit of measure representing the movement over a distance of one kilometre of one tonne of vehicle and contents excluding the weight of tractive vehicle.

*The weight of railcars is included.*

### V. TRANSPORT MEASUREMENT

01. **Rail 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.*

02. **Types of rail transport**

The main categories are:

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

03. **National rail transport**

Rail transport between two places (a place of loading and a place of unloading) located in the same country irrespective of the country in which the railway vehicles were registered. It may involve transit through a second country.

04. **International rail transport**

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

05. **Rail transit**

Rail transport in the same railway vehicle through a country between two places (a place of loading and a place of unloading) both located in another country or in other countries.

*Wagons loaded/unloaded at the frontier of that country onto/from another mode of transport are included.*
06. **Rail passenger**

Any person, excluding members of train crew, who makes a journey by railway vehicle.

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

07. **Paying rail passenger**

Passenger holding a ticket which has been paid for.

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.*

09. **Purpose of rail passenger journey**

The reasons for undertaking the journey are:

-- Work and education (Commuting)
-- Business
-- Holidays (vacation)
-- Other (Shopping, leisure, family)

10. **Rail passenger embarked**

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

*A transfer from one rail vehicle to another is not regarded as embarkment even if the passenger changes trains during a journey.*

11. **Rail passenger disembarked**

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

*A transfer from one rail vehicle to another is not regarded as disembarkment even if the passenger changes trains during a journey.*

12. **Rail passenger journey**

The combination between the place of embarkment and the place of disembarkment of the passengers conveyed by rail whichever itinerary is followed.

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

13. **Place of embarkment**
The place taken into account is the place in which a railway passenger takes seat in the railway vehicle to be conveyed by it.

*An entrance to one rail vehicle directly to another is not regarded as disembarkment/ embarkment even if the passenger changes trains during a journey. However, if during the transfer another mode of transport is used, this is to be regarded as disembarkment from a rail vehicle followed by a subsequent embarkment on a rail vehicle.*

### 14. Place of disembarkment

The place taken into account is the place in which a railway passenger leaves the rail vehicle after being conveyed by it.

*An entrance to one rail vehicle to another is not regarded as embarkment/ disembarkment even if the passenger changes trains during a journey. However, if during the transfer another mode of transport is used, this is to be regarded as disembarkment from a rail vehicle followed by a subsequent embarkment on a rail vehicle.*

### 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.*

### 16. Consignment

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

### 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 loading capacity is utilized or not;
- **Smalls**: Any consignment for which it is neither necessary nor required that a wagon be used exclusively.

### 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.*

### 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.

20. Categories of goods carried by rail

The categories of goods carried by rail 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 - UN/ECE).

21. Hazardous goods

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

22. Goods loaded

Goods placed on a rail vehicle and dispatched by rail.

Unlike in road and inland waterway transport, transhipments from one rail vehicle to another and change of tractive vehicle are not regarded as loading after unloading.

23. Goods unloaded

Goods taken off a rail vehicle after transport by rail.

Unlike in road and inland waterway transport, transhipments from one rail vehicle to another and change of tractive vehicle are not regarded as unloading before reloading.

24. Goods having left the country by rail (other than goods in transit by rail throughout)

Goods loaded on a reporting railway network and transported by rail to be unloaded in a foreign country.

Wagons loaded on a railway network and carried by ferry to a foreign network are included.

25. Goods having entered the country by rail (other than goods in transit by rail throughout)

Goods loaded on a foreign railway network and transported by rail on the reporting railway network for unloading in the country of this reporting network.

Wagons loaded on a foreign railway network and carried by ferry to the reporting network are included.

26. Goods in transit by rail throughout

Goods loaded on a foreign railway network for a destination on a foreign railway network which are transported on the reporting railway network.

Wagons entering and/or leaving the reporting network by ferry are included.
27. **Goods rail transport link**

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

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

28. **Place of loading**

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

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

29. **Place of unloading**

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

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

VI. **ENERGY CONSUMPTION**

01. **Energy consumption by rail transport**

Final energy consumed by tractive vehicles for both traction and heating.

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.*
03. **Joule**

Unit of measurement of energy consumption:
1 terajoule = $10^{12}$ J = 2.78 x $10^5$ kWh,
1 terajoule = 23.88459 TOE.

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 (≥80 RON).*

Calorific value: 44.8 TJ/1 000 t.

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.

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 oils is above 25 cST at 40°C. The flashpoint is always above 50°C and their density is higher than 0.90.*

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.*

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.
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.

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.*
ROAD TRANSPORT
I. INFRASTRUCTURE

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.

02. Road network

All roads in a given area.

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.

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 signposts. Urban motorways are also included.

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.

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.

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.

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.

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.

II. TRANSPORT EQUIPMENT (VEHICLES)

01. Road vehicle

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

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.

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.

04. Foreign road vehicle

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

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.

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.*

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).

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.*

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

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.

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

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.*

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.*

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).*

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).*

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.

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.*

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.*

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)

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).

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".*

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.*

23. Agricultural tractors

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

24. Trailer

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

*This category exclude agricultural trailers and caravans.*

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.

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.

27. **Articulated vehicle**

Road tractor coupled to a semi-trailer.

28. **Road train**

Goods road motor vehicle coupled to a trailer

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

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.

30. **Load capacity**

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

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.*

32. **Age of road vehicle**

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

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

01. **Transport for hire or reward**

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

02. **Transport on own account**

Transport which is not for hire or reward.

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 heterogenous with regard to its economic activity as well as to its location.

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: 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;

- NACE/Rev.1: 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.

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.

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.

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

\(^3\)ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.
activities in the field of road passenger transport, according to value-added, is urban road passenger transport.

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.

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.

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.*

11. **Revenues**

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

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.*

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.

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.*

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.*

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.*

17. **Investment expenditure on roads**

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

18. **Investment expenditure on road vehicles**

Expenditure on purchase of road vehicles.

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.).*
20. **Maintenance expenditure on road vehicles**

Expenditure for keeping road vehicles in working order.

IV. **TRAFFIC**

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.*

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.

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.*

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.*

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.*

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.

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.

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.

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.*

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.*

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.*

V. TRANSPORT MEASUREMENT

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.*
02. **National road transport**

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

03. **Road cabotage transport**

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

04. **International road transport**

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

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/embarkment or than the country of unloading/disembarkment.

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.

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.

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.

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.

10. **Purpose of road passenger journeys**

The reasons for undertaking the journey are:

-- Work and education (Commuting)
-- Business
-- Holidays (vacation)
-- Other (Shopping, leisure, family)

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 embarkment after disembarkment.*

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 disembarkment before re-embarkment.*

13. **Road passenger transport link**

The combination of the place of embarkment and the place of disembarkment 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).*

14. **Place of embarkment**

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 embarkment after disembarkment.*

15. **Place of disembarkment**

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 disembarkment before re-embarkment.*

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.

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.

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.

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 - UN/ECE).

20. **Hazardous goods**

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

21. **Goods loaded**

Goods placed on a road vehicle and dispatched by road.

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

22. **Goods unloaded**

Goods taken off a road vehicle after transport by road.

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

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.

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.
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.

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

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).*

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.

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.

VI. **ENERGY CONSUMPTION**

01. **Energy consumption by road transport**

Final energy consumed by road motor vehicles.

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

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
- **Liquified petroleum gas** 1.130
- **Natural gas** 0.917

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

03. **Joule**

Unit of measurement of energy consumption:

1 terajoule = $10^{12}$ Joule = $2.78 \times 10^5$ kWh),
1 terajoule = 23,884,590 TOE
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 (_80 RON)._  

Calorific value: 44.8 TJ/1000 t.

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/1000 t.

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._

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.

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._
C

INLAND WATERWAY TRANSPORT (IWT)
I. INFRASTRUCTURE

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 sea-going 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 then 5 km at high water.*

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.*

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.

04. Navigable river

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

05. Navigable lake

Natural expanse of water open for navigation.

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

06. Navigable canal

Waterway built primarily for navigation.

07. Navigable inland waterways network

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

08. Navigable inland waterways regularly used for transport
Inland waterway 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.

II. TRANSPORT EQUIPMENT (VESSEL)

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 waterways 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.*

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.*

03. Foreign IWT vessel

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

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.

05. IWT passenger vessel

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

06. Inland waterways 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.*

07. Self-propelled barge

IWT freight vessel having its own means of mechanical propulsion.
Inland waterway transport

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.

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.*

09. **Self-propelled pusher barge**

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

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.*

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.

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.*

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.*

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.*

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.

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.*

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.*

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.*

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.*

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.

21. **Carrying capacity**

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

22. **Capacity of an IWT passenger vessel**

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

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)*:
Inland waterway transport

\[ 1 \text{ kW} = 1.36 \text{ h.p.}; \ 1 \text{ h.p.} = 0.735 \text{ kW}. \]

24. **Year of construction of vessel**

Year of original construction of the hull.

III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT

01. **Transport for hire or reward**

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

02. **Transport on own-account**

Transport which is not for hire or reward.

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\(^5\).

*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.*

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*\(^6\): Class 6120 - Inland waterway transport
- *NACE/Rev.1*\(^7\): 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.*

05. **Public IWT enterprise**

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Inland waterway transport

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

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.

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.*

08. Revenues

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

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.*

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.

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.

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.*

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.*

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.*

15. **Investment expenditure on vessels**

Expenditure on purchase of vessels.

16. **Maintenance expenditure on infrastructure**

Expenditure for keeping infrastructure in working order.

*Expenditure on locks is included.*

17. **Maintenance expenditure on vessels**

Expenditure for keeping vessels in working order.
IV. TRAFFIC

01. Inland waterways 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.*

02. Inland waterways traffic on national territory

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

03. Unladen inland waterways 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.*

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.*

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.*

06. Inland waterways convoy

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

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.*

08. Tonne-kilometre offered
Inland waterway transport

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.*

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.*

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.*

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.*

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.*

V. **TRANSPORT MEASUREMENT**

01. **Inland waterways transport (IWT)**

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

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

02. **National inland waterways transport**
Inland waterways transport between two places (a place of loading/embarkment and a place of unloading/disembarkment) located in the same country irrespective of the country in which the IWT vessel is registered. It may involve transit through a second country.

03. **Inland waterways cabotage transport**

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

04. **International inland waterways transport**

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

05. **Cross-trade inland waterways 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/embarkment or than the country of unloading/disembarkment.

06. **Inland waterways transit**

IWT through a country between two places (a place of loading/embarkment and a place of unloading/disembarkment) 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.*

07. **Urban inland waterways 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.*

08. **Inland waterways passenger**

Any person who makes a journey on board of an IWT vessel. Service staff assigned to IWT vessels are not regarded as passengers.

09. **Inland waterways passenger-kilometre**

Unit of measure representing the transport of one passenger by inland waterway over one kilometre.
The distance to be taken into consideration is the distance actually travelled by the passenger.

10. **Purpose of inland waterways passenger journeys**

The reasons for undertaking the journeys are:

-- Work and education (Commuting)
-- Business
-- Holidays
-- Other (shopping, leisure, family).

11. **Inland waterways passenger embarked**

Passenger who boards an IWT vessel to be conveyed by it.

*A transfer from one IWT vessel to another is regarded as embarkment after disembarkment.*

12. **Inland waterways 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 disembarkment before re-embarkment.*

13. **Inland waterways passenger transport link**

The combination of the place of embarkment and the place of disembarkment 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).*

14. **Place of embarkment**

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 embarkment after disembarkment.*

15. **Place of disembarkment**

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 disembarkment before re-embarkment.*

16. **Goods carried by inland waterways**

Any goods moved by IWT freight vessel.
Inland waterway transport

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

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.

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.

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 - UN/ECE).

20. **Hazardous goods**

The categories of hazardous goods carried by inland waterways are those defined by the European Provisions Concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN).

21. **Goods loaded**

Goods placed on an IWT vessel and dispatched by inland waterways.

Transhipment from one IWT vessel to another is regarded as loading after unloading. The same applies to changes of pusher tugs or tugs.

22. **Goods unloaded**

Goods taken of an IWT vessel after transport by inland waterways.

Transhipment from one IWT vessel to another is regarded as unloading before re-loading. The same applies to changes of pusher tugs and tugs.

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.

24. **Goods having entered the country by inland waterways (other than goods in transit by inland waterways throughout)**
Inland waterway transport

Goods which, having been loaded on an IWT vessel in another country, entered the country by inland waterways and were unloaded there.

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.

*Transhipments from one IWT vessel to another and changes of pusher tugs or tugs are regarded as loading/unloading.*

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).*

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.

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.

VI. **ENERGY CONSUMPTION**

01. **Energy consumption by IWT**

Final energy consumption by IWT vessels.

*This includes final energy consumption by unladen IWT vessels.*

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:*

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor gasoline</td>
<td>1.070</td>
</tr>
<tr>
<td>Gas/diesel oil</td>
<td>1.035</td>
</tr>
<tr>
<td>Heavy fuel oil</td>
<td>0.960</td>
</tr>
<tr>
<td>Liquified petroleum gas</td>
<td>1.130</td>
</tr>
<tr>
<td>Natural gas</td>
<td>0.917</td>
</tr>
</tbody>
</table>

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

   Unit of measurement of energy consumption:
   
   1 terajoule = $10^{12}$ J = 2.78 x $10^5$ kWh,
   
   1 terajoule = 23.88459 TOE.

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 (≥80 RON).*

   Calorific value: 44.8 TJ/1 000 t.

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.
OIL PIPELINE TRANSPORT
I. INFRASTRUCTURE/II. TRANSPORT EQUIPMENT

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.*

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.*

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.*

III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT

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.

*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.*

02. Oil pipeline enterprise

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Oil Pipeline Transport

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>9</sup>: 6030 - Transport via pipelines.
  -- NACE/Rev.1<sup>10</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._

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.

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.

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-a-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.*

06. **Revenues**

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

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

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

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.

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.*

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.*

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.*

12. Investment expenditure on infrastructure

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

Expenditure for keeping infrastructure in working order.

*Expenditure on pumping facilities is included.*

IV. **TRAFFIC/ V. TRANSPORT MEASUREMENT**

01. **Oil pipeline transport**

Any movement of crude or refined liquid petroleum products in a given oil pipeline network.

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.

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.

04. **Goods transported by oil pipeline**

Any crude or refined liquid petroleum products moved by oil pipelines.

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.*

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 - UN/ECE).

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.
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.

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.

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.*

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).*

12. **Pumping-in place**

The place taken into account is the place at which the goods were pumped into an oil pipeline.

13. **Pumping-out place**

The place taken into account is the place at which the goods were pumped out of an oil pipeline.

VI. **ENERGY CONSUMPTION**

01. **Energy consumed for transport by oil pipeline**

Final energy consumed for movement of products by oil pipeline.

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
Oil Pipeline Transport

<table>
<thead>
<tr>
<th>Material</th>
<th>Conversion Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>-- Heavy fuel oil</td>
<td>0.960</td>
</tr>
<tr>
<td>-- Liquefied petroleum gas</td>
<td>1.130</td>
</tr>
<tr>
<td>-- Natural gas</td>
<td>0.917</td>
</tr>
</tbody>
</table>

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

03. **Joule**

Unit of measurement of energy consumption:
1 terajoule = \(10^{12} \text{J} = 2.78 \times 10^5 \text{kWh}\).
1 terajoule = 23.88459 TOE.

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 (>80 RON).

Calorific value: 44.8 TJ/1 000 t.

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.

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.

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).
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).
MARITIME TRANSPORT
I. INFRASTRUCTURE

01. Port

Place having facilities for merchant ships to moor and to load or discharge goods or passengers to or from seagoing vessels.

II. TRANSPORT EQUIPMENT (VESSEL)

01. Seagoing vessel

Floating marine structure with one or more surface displacement hulls.

*Hydrofoil, air cushion vehicles (hovercraft) and barges are included. Vessels under repair are included. Vessels suitable for inland navigation but which are authorised to navigate at seas (mixed seagoing and inland waterways vessels) are excluded.*

02. Ship

Seagoing self-propelled surface-displacement vessel.

*Hydrofoil, air cushion vehicles (hovercraft), submersible, submarine 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.*

03. Merchant ship

Ship designed for the carriage of goods, transport of passengers or specially fitted out for a specific duty.

*Naval ships and ships used by public administration and public services are excluded. Merchant ships are divided into cargo carrying ships and ships of miscellaneous activities. Ships of miscellaneous activities include fish catching and processing ships, tugs, dredges, research/survey ships, and ships designed for offshore production and support.*

04. Cargo carrying ship

Merchant ship designed for the carriage of goods and/or public transport of passengers.

05. Flag state

Country of registry of a sea going vessel.

*A sea going vessel is subject to the maritime regulations in respect of manning scales, safety standards and consular representation abroad of its country of registration.*

06. Sea going vessel under national flag

Sea going vessel which is registered at a given date in the reporting country.
07. **Sea going vessel under foreign flag**

Sea going which is registered at a given date in a country other than the reporting country.

08. **Merchant fleet**

Number of merchant ships registered at a given date in a country and authorised to navigate at sea.

*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.*

09. **Tanker**

Ship designed with a single deck and an arrangement of integral or independent tanks specifically for the bulk carriage of liquid cargo.

10. **Bulk carrier**

Ship designed with a single deck and holds for the bulk carriage of loose dry cargo of a homogenous nature.

11. **Bulk/oil carrier**

Bulk carrier arranged for the carriage of either bulk dry cargoes or liquid cargoes in the same cargo spaces but not simultaneously.

12. **Ore carrier**

Bulk carrier strengthened for the carriage of ore cargoes.

13. **Container ship (fully cellular - fc)**

Ship fitted throughout with fixed or portable cell guides for the carriage of containers.

14. **Specialised carrier**

Ship specially designed for the carriage of particular cargoes.

*This category includes vehicle carrier, livestock carrier, irradiated fuel carrier, barge carrier.*

15. **Passenger ship**

Ship designed specifically to carry more than 12 fare-paying passengers whether berthed or unberthed.

*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.

16. **General cargo ship**

Ship designed with holds for the carriage of diverse types and forms of goods.

*This category includes reefer ships, Ro-Ro passenger ships, Ro-Ro container ships, other Ro-Ro cargo ships, general cargo/passenger ships and other multi-purpose ships.*

17. **Reefer ship**

General cargo ship with 80 per cent or more insulated cargo space.

18. **Ro-Ro ship**

Ship arranged for Ro-Ro loading/unloading.

*Ro-Ro is a way of loading/unloading a vessel by the vessel's doors/ramps by a wheeled means of conveyance. Ro-Ro passenger ship and Ro-Ro container ship are included. Specialized vehicle carriers are excluded from this group but are included under specialised carriers.*

19. **Ro-Ro cargo ship**

Ro-Ro ship with facilities for the carriage of goods only.

*Ro-Ro container ships are included.*

20. **Ro-Ro passenger ship**

Ro-Ro ship with facilities for the carriage of both passengers and goods.

*Commercial factors have led to increased complexities of ship design and many ships are designed for a combination of purposes. The main combinations are Ro-Ro passenger ship and general cargo/passenger ship.*

21. **Seagoing barge**

Vessel designed as non self-propelled unit for the carriage of goods by sea in holds, in tanks or on a weather deck space only.

*Barges are considered as vessels designed as non self-propelled units, and may be goods carrying or specially out-fitted for a specific activity. The units are towed/pushed by ship, or may be moored for the purpose of storing goods or whilst they perform their specific activity. The definitions of the various types of barges are virtually identical to their self-propelled counterparts. (Some barges may have a propulsion system for limited manoeuvring only - their main method of movement is by way of ship).*

22. **Seagoing tug**
Maritime Transport

Ship designed for the towing and/or pushing of ships or other floating structures.

*Port tugs are included.*

23. **Hydrofoil**

A fast vessel which, when at speed, lifts her hull clear of the surface of the water, supporting herself upon foils, or wings or legs, which project beneath her bottom.

*Hydrofoils are used mostly as passenger ferries.*

24. **Hovercraft (air cushion vehicle)**

A vessel which supports herself a short distance above the surface of the water (or land) on a cushion of air contained by a flexible skirt attached to the outer perimeter of the vehicle.

*Hovercrafts are used mostly as passenger ferries.*

25. **Catamaran**

Ship consisting of two hulls connected with a deck.

*Catamarans are used mainly as passenger ferries but some cargo-carrying catamarans also exist.*

III. ENTERPRISES, ECONOMIC PERFORMANCE AND EMPLOYMENT

01. **Transport for hire or reward**

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

02. **Transport on own-account**

Transport which is not for hire or reward.

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.\(^\text{11}\)

*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.*

04. **Sea transport enterprise**

\(^{11}\text{ISIC/Rev.3 - International Standard Industrial Classification of All Economic Activities, Statistical Papers, Series M, No.4, Rev.3, United Nations, 1990.}\)
Enterprise carrying out in one or more places activities for the production of sea transport services and whose main activities according to the 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\textsuperscript{12}:  61.10 - Sea and coastal water 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. Ports, and other units providing supporting and auxiliary transport services are excluded.

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.

06. Employment

Number of persons employed at 31 December in a sea transport enterprise (inclusive of working owners, partners working regularly in the enterprise and unpaid family workers), as well as persons employed outside the enterprise but who belong to it and are directly paid by it.

07. Turnover

Total amount invoiced by the sea transport 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-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 for prompt payments.

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

08. Revenues

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

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.

10. Costs

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

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, charters, but excluding energy consumption cost.

-- Energy consumption costs

-- Taxes

-- Financial charges

-- Other costs
Including amounts allocated to depreciation and provisions, etc.

12. Value added

Gross output of the sea transport enterprise less the value of its intermediate consumption. Value added of domestic production of all of a country's sea transport 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.

13. Tangible investment

The outlay (purchases and own account production) of sea transport 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 sea transport enterprises to the gross fixed capital formation of that country is equal to the total of their tangible investment less the balance between the purchase and sale of land.

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

15. **Investment expenditure on vessels**

Expenditure on purchase of vessels.

**Expenditures on major structural alterations and major repairs, including replacement of major items such as engines or "jumboizing" are included.**

16. **Maintenance expenditure on infrastructure**

Expenditure for keeping infrastructure in working order.

*Maintenance dredging is included.*

17. **Maintenance expenditure on vessels**

Expenditure for keeping vessels in working order.

**IV. TRAFFIC**

01. **Sea traffic**

Any movement of a sea going vessel at sea.

*One port traffic (movements of sea going vessels to offshore installations, or for dumping at sea, or traffic from the sea bed to ports) is included.*

*Fluvio-maritime movements of sea going vessels are included. Movements on inland waterways between sea ports and inland waterway ports are excluded and are included in inland waterway traffic. Movements of sea going vessels internally, between different basins or docks of the same port, are excluded.*

02. **National sea traffic**

Sea traffic between two ports of a national territory or one port sea traffic, irrespective of the country in which the vessel is registered.

03. **Unladen sea traffic**

Sea traffic for which neither goods nor passengers are carried.

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

04. **Sea voyage**
Maritime Transport

Sea traffic from a specified point of origin to a specified point of destination.

A voyage can be divided into a number of stages or sections. Sea voyages are sometimes referred to as sea journeys.

05. **Ship-kilometre**

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

The distance taken into account is the distance actually travelled. Movements of unladen vessels are included. Movements of hydrofoils and hovercrafts are included.

06. **Tonne-kilometre offered**

Unit of measure representing the movement of one tonne of carrying capacity in a seagoing vessel over one kilometre.

The distance to be considered is the distance actually travelled. In practice, carrying capacity will be measured in deadweight tonnes (DWT). The DWT includes the weight of all cargo, fuel, water, ballast, stores, crew etc., which a seagoing vessel can carry. The deadweight is expressed in tons (2240 lbs) or tonnes (metric ton of 1000 kilogrammes)

07. **TEU-kilometre offered**

Unit of measure representing the movement of one TEU of capacity in a container ship over one kilometre.

08. **Passenger-kilometre offered**

Unit of measure representing the movement of one authorized passenger carrying capacity in a seagoing vessel over one kilometre.

09. **Arrival of a seagoing vessel**

Any laden or unladen seagoing vessel which entered a port in the territory of the country.

10. **Departure of a seagoing vessel**

Any laden or unladen seagoing vessel which left a port in the territory of the country.

V. **TRANSPORT MEASUREMENT**

01. **Sea transport**

Any movement of goods and/or passengers using seagoing vessels on voyages 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. Bunkers and stores supplied to vessels are excluded.

Fluvio-maritime movements of goods by seagoing vessels are included. Movements of goods on inland waterways vessels between sea ports 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.

02. Cabotage (maritime context)/ national sea transport

Sea transport between two ports (a port of loading/embarkment and a port of unloading/dischARGE) located in the same country irrespective of the country in which the seagoing vessel is registered.

Cabotage (maritime context) can be performed by a seagoing vessel registered in the reporting country or in another country. One port transport is included.

03. International sea transport

Sea transport between two ports (a port of loading/embarkment and a port of unloading/dischARGE) located in two different countries.

International one port transport is included.

04. Cross-trade sea transport

International sea transport performed by a seagoing vessel registered in a third country.

A third country is a country other than the country of loading/embarkment or than the country of unloading/dischARGE.

05. Sea passenger

Any person who makes a voyage on a seagoing vessel. Service staff assigned to seagoing vessels are not regarded as passengers.

06. Passenger-kilometre

Unit of measure representing the transport of one sea passenger over one kilometre.

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

07. Purpose of a sea passenger voyage

The reasons for undertaking a voyage are:

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

08. Sea passenger embarked
09. **Sea passenger disembarked**

A passenger disembarking from a seagoing vessel after having been conveyed by it.

*A transfer from one seagoing vessel to another is regarded as disembarkment before re-embarkment.*

10. **Sea passenger transport link**

Combination of the port of embarkment and the port of disembarkment of the passenger conveyed 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).*

11. **Port of embarkment**

The port taken into account is the port where the passenger boarded a seagoing vessel to be conveyed by it.

*A transfer from one seagoing vessel to another is regarded as embarkment after disembarkment.*

12. **Port of disembarkment**

The port taken into account is the port where the passenger disembarked from a seagoing vessel after having been conveyed by it.

*A transfer from one seagoing vessel to another is regarded as disembarkment before re-embarkment.*

13. **Goods carried by sea**

Any goods moved by sea.

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

*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, bunkers and stores of vessels, fish landed from fishing vessels and fish-processing ships, goods carried internally between different basins or docks of the same port.*
14. **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 the tare weight of the container, swap-body and pallets containing goods as well as road goods vehicles, wagons or barges carried by sea. When this tare-weight is excluded, the weight is the gross weight.*

15. **Tonne-kilometre**

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

*The distance taken into account is the distance actually travelled.*

16. **TEU-kilometre**

Unit of measure of container transport which represents the transport of one TEU over one kilometre.

*The distance taken into account is the distance actually travelled.*

17. **Categories of goods carried by sea**

The categories of goods carried by sea are those defined by the NST/R (Standard Goods Nomenclature for Transport Statistics/revised - EUROSTAT) or CSTE (UN-ECE Commodity Classification for Transport Statistics in Europe) nomenclatures.

18. **Dangerous goods**

The classifications of dangerous goods are those defined by the United Nations Committee of Experts on the Transport of Dangerous Goods and subsidiary bodies (ST/SG/AC.10/1/Rev.5).

*There are nine classes of dangerous goods:*

1. explosives;
2. gases;
3. flammable liquids;
4. flammable solids, substances liable to spontaneous combustion, substances which, on contact with water emit flammable gases;
5. oxidizing substances, organic peroxides;
6. poisonous (toxic) and infectious substances;
7. radioactive material;
8. corrosives; and,
9. miscellaneous dangerous substances.

19. **Goods loaded**
Maritime Transport

Goods placed on a seagoing vessel and dispatched by sea.

Transhipment from one seagoing vessel to another is regarded as loading after unloading.

Goods loaded include national goods, transhipment 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).

20. Goods unloaded

Goods taken off a seagoing vessel after transport by sea.

Transhipment from one seagoing vessel to another is regarded as unloading before reloading.

Goods unloaded include national goods, transhipment 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).

21. Goods having left the country by sea

Goods which, having been loaded on a seagoing vessel in the country, left the country by sea and were unloaded in another country.

22. Goods having entered the country by sea

Goods which, having been loaded on a seagoing vessel in another country, entered the country by sea and were unloaded there.

23. 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).

24. Port of loading

The port taken into account is the port where the goods were loaded on a seagoing vessel to be transported by it.

Transhipments from one seagoing vessel to another are regarded as loading after unloading.
25. **Port of unloading**

The port taken into account is the port where the goods were unloaded from a seagoing vessel after having been transported by it.

*Transhipments from one seagoing vessel to another are regarded as unloading before reloading.*

26. **Ro-Ro (Roll-on Roll-off)**

Loading/unloading by the vessel's doors/ramps by a wheeled means of conveyance.

27. **Lo-Lo (Lift-on Lift-off)**

Loading/unloading by the vessel's own derricks/cranes or by shore based cranes.

VI. **ENERGY CONSUMPTION**

01. **Energy consumption by ships**

Final energy consumption by ships.

*This includes final energy consumption by unladen ships.*

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) are as follows:

- **Gas/diesel oil**
  
  1.035

- **Heavy fuel oil**

  0.96

03. **Joule**

Unit of measurement of energy consumption.

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

(1 terajoule = 23.88459 TOE)

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 25cST at 40°C.

Calorific value: 43.3 TJ/1000 t.

**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
I. Introduction

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

* UN/ECE 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".

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.
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).

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).

05. **Transport of containers or swap bodies (by active mode)**

Carriage of containers or swap bodies by an active mode of transport.

### II. EQUIPMENT

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.

02. **Intermodal transport unit (ITU)**

Container, swap body or semi-trailer/goods road motor vehicle suitable for intermodal transport.

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$^3$ 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.

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.

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 conatiner.

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.

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.

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.*

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).*

10. **Wagon for intermodal transport**

Wagon specially built or equipped for the transport of intermodal transport units (ITUs) or other goods road vehicles.

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.*