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Glossary for transport statistics

6th edition

2026

 MANUALS AND
GUIDELINES



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2026

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Glossary introduction

The *Glossary for Transport Statistics* was first published in 1994 with the aim of assisting countries in the systematic collection of transport data through the 'Common questionnaire for transport statistics' developed collaboratively by the United Nations Economic Commission for Europe (UNECE), the International Transport Forum (ITF) and Eurostat. Since its inception, the Glossary has evolved to cover all facets of transport statistics, establishing itself as an essential tool for standardising terminology across various transport modes and countries. Over the years, it has undergone six editions, each building on the successes of its predecessors while incorporating new insights, addressing emerging trends and integrating valuable feedback from a diverse array of stakeholders.

Initially focused on rail, road, inland waterways and pipeline transport, the glossary has progressively expanded by introducing chapters on maritime transport, air transport, intermodal transport, passenger mobility, energy consumption and the environmental impact of transport, mirroring the dynamic nature of the global transport sector. These updates ensure that the Glossary remains a dynamic and adaptable resource, capable of meeting the demands of an ever-evolving transport landscape. As a result, the Glossary has been instrumental in improving the quality, comparability and accessibility of transport data worldwide, thereby providing a solid foundation for informed policymaking and research.

This sixth revision was further prompted by the introduction of the streamlined 'Common questionnaire', which will be implemented starting in 2026, with 2025 as the first reference year. Streamlining has necessitated an update to the Glossary, as reporting countries specifically requested that the revised version include definitions for all relevant indicators addressed in the 'Common questionnaire'.

The current sixth edition is the result of the continued invaluable collaboration among the three organisations and numerous dedicated experts from international sectoral bodies, agencies and Member States. These contributors have invested significant effort in harmonising transport statistics on both the European and international fronts. Their work has focused on offering insights into missing definitions, streamlining the Glossary by eliminating outdated or inconsistent terminology and revising and clarifying existing definitions. Additionally, the revised Glossary incorporates several new schemas and illustrations, while also taking into account recent legal acts pertinent to each specific domain, resulting in updates to several definitions.

The sixth edition of the Glossary comprises 884 definitions and remains a vital reference for those engaged in transport statistics. This edition features thoroughly updated content across all ten chapters, ensuring that the information is both current and comprehensive. Notably, substantial revisions have been made to the chapters on rail, road, inland waterway and intermodal transport. Specifically, the rail transport chapter introduces a distinction between terminology related to 'heavy rail' (formerly known as 'rail') and 'other rail' in line with Revision 2.1 of the statistical classification of economic activities (NACE). The definitions aim to closely align with those employed by the Union Internationale des Chemins de fer and the European Union Agency for Railways. This update ensures consistency and clarity in the classification of rail-related terms.

The road transport chapter has also undergone significant changes. Notably, cycle tracks are now included in the definition of 'road', broadening the scope beyond motor vehicles. This chapter has introduced numerous new definitions related to cycling, such as cycle streets, cycle routes and cycle highways. Additionally, it recognises new mobility activities, such as fleet sharing and ride-pooling, and introduces definitions for emerging vehicles not classified as motor vehicles, such as personal light electric vehicles.

The chapter on inland waterway transport has also been extensively updated, with existing definitions revised to align with key legal acts and significant glossaries in the field, such as the *UNECE Glossary on Water Transport*, published in 2023. The revised Glossary also underscores the significance of passenger transport on inland waterways. This enhancement supports Eurostat's and UNECE's efforts to collect data in this area, enriching the understanding of the growing role of waterways as a mode of transport.

The intermodal transport chapter has been thoroughly revised, introducing new definitions relevant to statistics in this domain, and particularly aligning the chapter with UNECE's terminology on combined transport, published in 2000.

Additionally, chapters on pipeline transport, air transport, maritime transport, energy consumption, the environmental impact of transport, and passenger mobility have been updated to incorporate additional definitions and ensure alignment with existing legal acts.

Across all chapters, numerous changes have been implemented to enhance clarity and consistency. Comprehensive explanatory notes have been introduced to eliminate ambiguity, titles have been refined to be more domain-specific, and the order of definitions has been reorganised to ensure uniformity across sub-chapters. Moreover, sub-numbering has been used more substantively where clear sub-categories were identified, facilitating easier navigation and understanding for users.

Notice

The units of measurement recommended for international comparison are those provided in the Glossary, though countries may opt to collect and report data in alternative units for national purposes.

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

The production of this publication was coordinated by:

United Nations Economic Commission for Europe (UNECE)
Fadiyah Achmadi and Francesco Dionori
Palais des Nations
CH-1211 Geneva 10
SWITZERLAND
Email: fadiyah.achmadi@un.org and francesco.dionori@un.org
Internet: <https://unece.org/transport>

International Transport Forum (ITF)

Rachele Poggi
2, rue André Pascal
75016 Paris
FRANCE
Email: rachele.poggi@itf-oecd.org
Internet: <https://www.itf-oecd.org>

Eurostat

Alain Gallais, Stefanie Hille and Nikolaos Roubanis
Unit E.3 Transport and Energy
5, rue Alphonse Weicker
L-2712 Luxembourg
LUXEMBOURG
Email: alain.gallais@ec.europa.eu, stefanie.hille@ec.europa.eu and nikolaos.roubanis@ec.europa.eu
Internet: <https://ec.europa.eu/eurostat>

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A

Railway transport



A. Rail transport

A.0 Introduction

A.0-01 Heavy rail

Rail systems for medium- and long-distance passenger and freight transport, including regional, intercity, high-speed and certain local rail services operating on the same infrastructure as regional, intercity or freight services.

A.0-02 Other rail

Diverse range of rail systems not classified as heavy rail, primarily for short-distance passenger transport and generally functionally separated from heavy rail networks. Includes:

- urban and suburban transport systems: metro lines (see [A.I-18](#)), tram lines (see [A.I-19](#)) and other urban light rail lines (see [A.I-20](#));
- dedicated networks: funicular (see [A.I-22](#)) and rack (see [A.I-23](#)) railway lines, often used in mountainous regions or for steep gradients;
- touristic rail lines (see [A.I-21](#)): rail systems designed for leisure or sightseeing, such as heritage trains.

Tram-train systems (operating primarily on light railway networks, but also on heavy railway networks) are classified under 'Other rail'.

Train-tram systems (mainly operating on heavy railway networks) are classified under 'Heavy rail'.

A.I Rail infrastructure

A.I-01 Track

Pair of rails over which rail-borne vehicles can run (typically a pair, but sometimes a single rail or more than two rails).



A.I-01.1 Running track

Rail track providing end-to-end line continuity, designed for running trains between stations or points indicated in timetables, network statements, rosters or other designations/publications as independent points of departure or arrival for the conveyance of passengers or goods.

Also referred to as 'main track'.

A.I-01.2 Switch

Unit of track comprising two fixed rails (stock rails) and two movable rails (switch rails), used to direct vehicles from one track to another.

Also referred to as 'switch point' or 'turnout'.

A.I-01.3 Secondary track

Track not classified as a running track.

A.I-01.4 Passing loop

Type of secondary track connected to running track, used for passing, crossing and stabling.

A.I-01.5 Siding

Type of secondary track branching off running main tracks/lines.

The length of sidings is included in the length of tracks if publicly accessible and managed by the infrastructure manager; privately operated sidings are excluded.

Sidings do not contribute to the length of lines.

A.I-01.6 Marshalling yard

Site specifically equipped with a number of tracks or other equipment for railway vehicle marshalling (switching) operations. Marshalling yards are included in publicly accessible sidings.

Also referred to as 'classification yard'.



A.I-01.7 Service facility

Installation comprising ground area, buildings and equipment, specially designed, wholly or partly, to allow the supply of one or more services: passenger stations, their buildings and other facilities; freight terminals; marshalling yards and train formation facilities, including shunting facilities; storage sidings; maintenance facilities; other technical facilities, including cleaning and washing facilities; maritime and inland port facilities linked to rail activities; relief facilities; and refuelling facilities, including the supply of fuel in these facilities.

The boundary of the service facility is the point at which a railway vehicle leaving the service facility cannot pass without authorisation to access the principal railway line (see [A.I-03.1](#)) or other similar line. This point is usually identified by a signal.

Tracks in service facilities are included in publicly accessible sidings.

Rail infrastructure in ports (often outside the scope of principal infrastructure managers), connected to the main railway network and open to public traffic, should not be counted as length of 'lines' (see [A.I-01.5](#)) but as length of 'tracks' only.

A.I-01.8 Loading track

Siding or dedicated secondary track at freight terminals designated for the loading of freight wagons.

A.I-02 Section of line

Section of line made up of one or more running tracks (see [A.I-01.1](#)) between two adjacent operational points (see [A.I-13](#)).

The length of a section of line is measured in the middle of the section, from centre to centre of operational points at the start and end of the section of line. If the boundary of the rail network falls in open track, the length of the section is measured up to that point.

The section situated between a station approach and the join to the main line of two or more lines, which is used by all trains in either direction over these lines, is only counted once. However, if for one or more of these lines, tracks are normally allocated, the length of these lines is counted separately.

A.I-03 Railway line

Transport line composed of rail, used exclusively by railway vehicles and maintained for running trains.

Consists of successive sections of line.

Also referred to as 'railway route'.

**A.I-03.1 Principal railway line**

Railway line maintained and operated for running trains.

In the case of regular lines worked exclusively during part of the year (seasonal lines), their length is included in the end-of-year statement.

The cumulative length of the principal railway lines within the territory of a country corresponds to its railway network.

Also referred to as 'main line'.

A.I-03.2 Other line

Line other than principal lines, including lines maintained for possible future use but not for operation.

Such lines are not counted because they are not placed into service. Only when they are placed into service (accepted by authority) can they be counted.

A.I-04 Single track line

Line with only one track upon which trains are operated in both directions.

A.I-05 Multiple track line

Line with at least two tracks upon which trains are operated.

The length of multiple-track lines only includes entire line sections that comprise at least two tracks between two stations, or between a station and a tractive unit depot.

A.I-06 Electrified track

Track provided with an overhead catenary or a conductor rail to permit electric traction.

A.I-07 Electrified line

Electrified line with at least one track electrified.

The length of electrified lines only includes entire line sections that allow the passage of electric tractive units between two stations, or between a station and a tractive unit depot where at least one of the tracks is electrified. Line sections that are electrified at station approaches and where electrification is not extended as far as the next station count as non-electrified lines.

Neutral sections, where trains transit between different current systems without power, are considered part of electrified lines. In these short, non-electrified sections, trains run by momentum with pantographs down as they move from one electrical current type to another. These sections are part of the continuity between electrified line sections and should not be counted among non-electrified lines.

A.I-08 High-speed railway line

Principal railway line allowing traffic at speeds on the main segments equal to or greater than 200 km/h on upgraded lines and equal to or greater than 250 km/h on specially built lines.



A.I-08.1 Dedicated high-speed railway line

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

May include connecting lines, in particular connecting segments into town centre stations located on them, on which speeds may take account of local conditions.

A.I-08.2 Upgraded high-speed railway line

Conventional railway line specially upgraded to allow traffic at speeds equal to or greater than 200 km/h for the main segments.

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

A.I-09 Conventional railway line

Railway line that is not classified as a high-speed railway line in heavy rail.

A.I-10 Rail track gauge

Smallest distance between a pair of rails measured between the inside surfaces of the rail heads.

More precisely, a gauge consists of a set of rules including a reference contour and its associated calculation rules, allowing the definition of the outer dimensions of the vehicle and the space to be cleared by the infrastructure.

Statistics on rail track gauge distinguish between broad/large (more than 1 435 mm), standard (1 435 mm) and narrow (less than 1 435 mm) gauge railway track.



More precisely, a standard gauge is not less than 1 435 mm on straight sections, and not more than 1 470 mm on curves, including gauge widening.

A.I-10.1 Multi-rail track

Track with more than two rails, where at least two pairs of respective rails are designed to be operated as separate single tracks, with or without different track gauges.

If a railway line can be used as standard gauge and as broad/large or narrow gauge, it should be reported as 'standard'.

A.I-11 Rail loading gauge

Profile through which a railway vehicle and its loads must pass, taking into account tunnels and trackside obstacles.

These gauges are indicated for individual lines.

There are four basic gauges recognised by the International Union of Railways (UIC): international gauge and A, B and C gauges.

Combined transport consignments often exceed loading gauges A and B. Another gauge of particular significance for combined transport is the B+ gauge. There are also many other gauge codes (P, C, S, etc.) recognised.

A.I-12 Traffic type of a railway line

Although the nature of traffic on a line is dependent on market developments, a railway line can be classified:

- **passenger only**: if the railway line is exclusively reserved for use by passenger trains;
- **freight only**: if the railway line is exclusively reserved for use by freight trains;
- **passenger and freight**: if the railway line is open for use by passenger trains and by freight trains.

A.I-13 Operational point

Location for train service operations, where train services may begin and end or change route and where passenger or freight services may be provided; it includes locations at boundaries between Member States or infrastructure managers.

A.I-13.1 Halt

Stop-off point generally open to passenger traffic only and not usually staffed.

Also referred to as a passenger 'stop' or 'flag stop'.



A.I-13.2 Train station

Railway establishment dedicated to the embarkation and disembarkation of passengers and/or the loading and unloading of goods and/or for the formation, dispatch, reception and temporary parking of trains and/or for the parking and sorting of rolling stock.

Halts are excluded. Also referred to as 'rail' or 'railway station'.



A.I-13.3 Passenger station

Train station for passenger traffic, equipped with specific facilities for passenger access and providing appropriate services.



A.I-13.4 Rail freight terminal

Train station used exclusively or predominantly for the loading and unloading of goods, for the formation, dispatch, reception and temporary stabling of trains and/or for the stabling and marshalling of rolling stock.

A.I-13.5 Border point

Location at which an international border is crossed by a railway line.

A.I-13.6 Handover point

Point where the responsibility changes from one infrastructure manager to another.

A.I-14 Intermodal transport terminal

See [G.I-08](#).

A.I-15 Level crossing

Level intersection between a road and a railway, as authorised by the infrastructure manager and open to public or private road users.

Passages between platforms within stations are excluded, as are passages over tracks intended solely for employee use.

Also referred to as 'grade crossing'.

A.I-15.1 Active level crossing

Level crossing where crossing users are protected from, or warned of, the approaching train by devices activated when it is unsafe for users to traverse the crossing.

Protection through the use of physical devices includes:

- half or full barriers;
- gates.

Warning through the use of fixed equipment at level crossings includes:

- visible devices, such as lights;
- audible devices, including bells, horns, klaxons, etc.;
- physical devices, such as the vibration of road bumps.

Active level crossings are classified as follows.

- a) **Manual.** Level crossing where user-side protection or warning is manually activated by a railway employee.
- b) **Automatic with user-side warning.** Level crossing where a user-side warning is activated by the approaching train.
- c) **Automatic with user-side protection.** Level crossing where user-side protection is activated by the approaching train. This includes a level crossing with both user-side protection and warning.
- d) **Rail-side protected.** Level crossing where a signal or other train protection system permits a train to proceed only once the level crossing is fully user-side protected and free from incursion.

Also referred to as 'active grade crossing'.

A.I-15.2 Passive level crossing

Level crossing without any form of warning system or protection activated when it is unsafe for users to traverse the crossing.

Also referred to as 'passive grade crossing'.



A.I-16 Signalling system

System used to control railway traffic safely. The main purpose of signalling is to maintain a safe distance at all times between all trains on the running lines. The secondary aim is to make the best use possible of the railway infrastructure, so that the total throughput of trains meets business requirements.

A.I-17 Railway network statement

Statement that sets out in detail the general rules, deadlines, procedures and criteria for charging and capacity allocation schemes in heavy rail, including the description of infrastructure.

A.I-18 Metro line

Electric rail transport system, specifically designed for metro trains primarily used for urban transport with the capacity for high volumes of traffic and very frequent train movements. Metro lines are also characterised by closely spaced stations.

Also referred to as 'subway', 'metropolitan rail', 'rapid rail', 'rapid transit' or 'underground'.



A.I-19 Tram line

Rail system typically integrated into urban road networks, with tracks often laid directly on streets shared with other vehicles.

Tram infrastructure typically includes rail tracks and, in most cases, overhead electrical lines to supply power to the vehicles.

Also referred to as 'tramcar line' or 'streetcar line'.



A.I-20 Other urban light rail line

Rail line mainly for the urban and suburban transport of passengers, other than metro and tram lines, characterised by lower travel speed and more frequent stops compared to a heavy railway line. Unlike tram lines, urban light rail systems are often separated from other traffic.

The Berlin S-Bahn is an example of urban light rail.

A.I-21 Touristic rail line

Rail line used exclusively by touristic trains (see [A.IV-06](#)).

A.I-22 Funicular railway line

Type of cable railway system that connects points along a railway track laid on a steep slope. The system is characterised by two (or more) counterbalanced carriages (also called cars or trains) permanently attached to opposite ends of a haulage cable, which is looped over a pulley at the upper end of the track. The result of such a configuration is that the two carriages move synchronously: as one ascends, the other descends at an equal speed.

A.I-23 Rack railway line

Steep-grade railway with a geared rack rail, usually between the running rails. This allows trains to operate on steep gradients of 100 % (45 degrees) or more, well above the 10 % maximum for friction-based rail.

Rack rail sections are classified under heavy rail when they are only short segments of otherwise conventional railway lines.

A.I-24 Private rail infrastructure with restricted access

Privately owned rail infrastructure, including sidings, used by the owner or by an operator for the purpose of their respective freight or passenger activities with restricted access for other operators.

Often constructed solely to serve mines, forests or other industrial or agricultural installations.

They are excluded both from 'heavy rail' and 'other rail' statistic.

A.II Rail transport equipment

A.II-01 Railway vehicle

Mobile equipment running exclusively on rails, moving either under its own power (locomotive, railcar and driven bodies) or being hauled by another vehicle (coaches, non-driven bodies, vans and wagons).

Vehicles to be reported in the statistics are those registered in the country, aggregated by keepers (see [A.III-07](#)) rather than by owners.

A.II-02 Trainset

Composition of driven and non-driven bodies that cannot be separated or reconfigured outside the workshop. Trainsets may be coupled together to form a train provided that the coupling is compatible. Trainsets (coupled or not) are controlled from one cabin.

A railcar alone does not constitute a trainset.

Also referred to as 'multiple-unit set' or 'multiple-unit'.

A.II-02.1 High-speed trainset

Trainset designed for operation at a speed of at least 250 km/h on dedicated high-speed lines.

A.II-02.2 Intermediate high-speed trainset

Trainset designed for operation at a maximum operating speed greater than 200 km/h, but less than 250 km/h.

A.II-02.3 Conventional trainset

Trainset other than high-speed or intermediate high-speed trainset.

A.II-03 Tractive unit

Vehicle equipped with prime mover and motor, or with motor only, intended either for hauling or pushing other vehicles (a 'locomotive') or for running alone (a 'railcar'), or composition of vehicles identified as a trainset.

In spite of the usual reference to 'traction', the power in a trainset can come from the front car, be distributed among several cars or come from the rear car.

A.II-04 Locomotive

Tractive vehicle used for hauling railway vehicles, not intended to carry payload and with ability to be uncoupled in normal operation.

A.II-05 Shunter

Locomotive designed for use only in shunting yards, stations and depots.

They can be technically defined by low power, low top speed, small-diameter driving wheels and high torque.

Also referred to as 'shunting engine' or 'switcher'.



A.II-06 Railcar

Vehicle that can operate autonomously and is capable of carrying a payload (passengers, luggage, mail or freight).

A.II-07 Types of tractive units by source of power

- **Electric tractive unit.** Tractive unit with one or more electric motors, deriving current primarily from overhead wires, conductor rails or accumulators (battery) carried on locomotive.
A tractive unit that can derive current from both overhead wires and conductor rails or from accumulators (battery) is classed as 'full electric' (electric conductors and battery), within electric tractive units.
A tractive unit so equipped that also has 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 a 'dual mode' vehicle within electric tractive units.
- **Magnetic levitation (maglev).** Tractive unit using magnets that control the train's stability and speed for propulsion. It is a specific type of electric tractive unit.
- **Diesel tractive unit.** Tractive unit with a diesel engine as the main source of power, irrespective of the type of transmission installed.
Diesel-electric tractive units (or multiple units) that are propelled by electric motors (battery) and derive energy from a diesel generator are classed as 'hybrid' vehicles within diesel tractive units (or multiple units). Bio-diesel is included in diesel.
- **Alternative drive tractive unit.** This notion groups the sources of power that differ, in terms of their energy type and energy efficiency, from the technologies commonly used on the market (electricity and diesel).
- **Steam.** Tractive unit, whether cylinder- or turbine-driven, in which the source of power is steam, irrespective of the type of fuel used.
- **Hydrogen.** Tractive unit (or multiple unit) powered primarily by hydrogen.
Hydrogen fuel cell tractive units are included.

A.II-08 Passenger railway vehicle

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

These vehicles include special vehicles such as sleeping cars, saloon cars, dining cars, ambulance cars and vans carrying accompanied road passenger vehicles. Each separate vehicle of a multiple unit for the conveyance of passengers is counted as a passenger railway vehicle. Included are railcars or driven bodies if they are designed for passenger transport.

A.II-08.1 Driven body

Powered vehicle forming part of a trainset.

Also referred to as 'powered body' or 'tractive body'.

A.II-08.2 Non-driven body

Non-powered vehicle forming part of a trainset.

Also referred to as 'non-powered body' or 'non-tractive body'.

A.II-08.3 Rail coach

Passenger railway vehicle intended to be hauled by a locomotive.

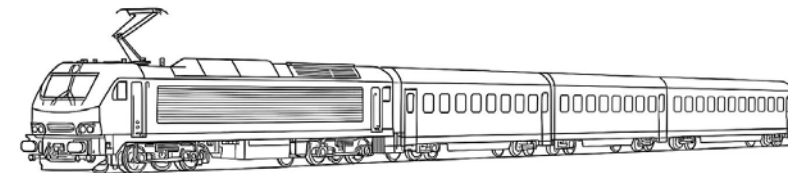


FIGURE 1

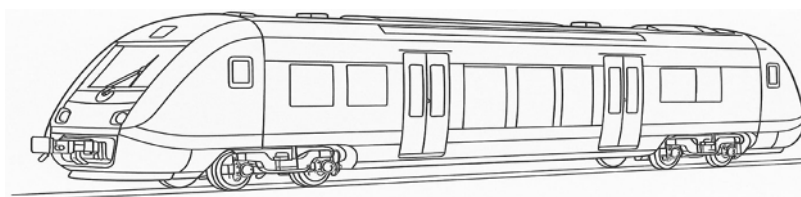
Types of railway vehicles and tractive units (source UIC)

- 1 electric locomotive and 3 coaches

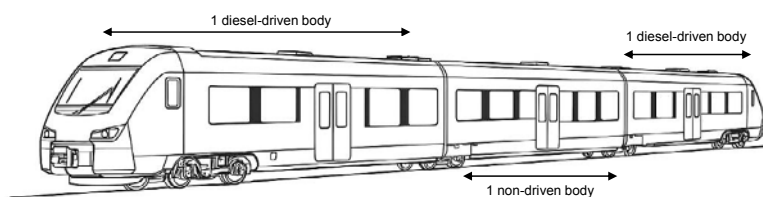
UIC



- 1 diesel railcar

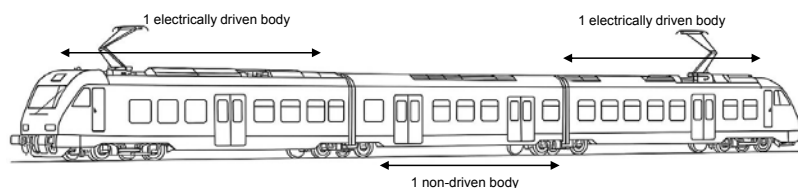


- 1 diesel trainset (DMU*) composed of 2 diesel-driven bodies and 1 non-driven body



*DMU: Diesel Multiple Unit

- 1 electric trainset (EMU*) composed of 2 electrically driven bodies and 1 non-driven body



*EMU: Electric Multiple Unit

Passenger rolling stock
UIC, made with OpenAI

TABLE 1

Numbers of railway vehicles and tractive units for passenger trains displayed in Figure 1

number of in train example	A.II-03 tractive unit	A.II-04 locomotive	A.II-06 railcar	A.II-02 trainset	A.II-08.1 driven body	A.II-08.2 non- driven body	A.II-08.3 rail coach
first passenger train	1	1	0	0	0	0	3
second passenger train	1	0	1	0	0	0	0
third passenger train	1	0	0	1	2	1	0
fourth passenger train	1	0	0	1	2	1	0

Source: UIC: International Union of Railways.

A.II-09 Metro vehicle

Electric railway vehicle or trainset designed for use on a metro line.

Usually drawing power from a third rail.

A.II-10 Tram

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

Also referred to as 'streetcar'.

A.II-11 Tram-train

Passenger vehicle designed for combined use primarily on light-rail infrastructure but also on heavy-rail infrastructure (see [A.0-02](#)).

A.II-12 Other light rail vehicle

Railway vehicle designed for use on another urban light rail line.

A.II-13 Passenger carrying capacity: seats and berths

The number of seats and/or berths (for sleeping accommodation, including couchettes) available in a passenger vehicle.

Seats in dining coaches and buffet compartment places are excluded.

A.II-14 Passenger carrying capacity: standing places

The number of authorised standing places available in a passenger vehicle.

A.II-15 Rail van

Non-tractive railway vehicle forming part of a passenger or freight train and used by the train crew and/or for the conveyance of luggage, parcels, bicycles, accompanied road passenger vehicles, etc.

Vehicles possessing one or more passenger compartments are not counted as vans but as passenger railway vehicles. Mail vans are included under vans when they do not have a passenger compartment.

Also referred to as 'baggage car'.

A.II-16 Wagon

Railway vehicle, without its own means of propulsion, normally intended for the transport of freight.

Also referred to as 'freight wagon' or 'freight car'.

**A.II-17 International classification of wagons**

E	Ordinary open high-sided wagons
F	Special open high-sided wagons
G	Ordinary covered wagons
H	Special covered wagons
I	Temperature-controlled wagons
K	Ordinary flat wagons
L	Special flat wagons
R	Ordinary flat wagons with bogies
S	Special flat wagons with bogies
T	Wagons with an opening roof
U	Special wagons
Z	Tank wagons

A.II-18 Covered wagon

Wagon characterised by its closed construction with a roof and fully enclosed sides, capable of being locked and/or sealed.

Wagons with an opening roof, along with those that are insulated, heated and refrigerated, are included.

Corresponds to letters marked G, H, I and T (opening roof) in UIC Leaflet 438-2 O and Decision (EU) 2018/1614, Appendix 6, Part 12.

Also referred to as 'enclosed car'.

A.II-19 Insulated wagon

Covered wagon, the body of which is built with insulating walls, doors, floor and roof, to limit heat exchange between the interior of the wagon and the outside, so that the overall coefficient of heat transfer (K coefficient) allows the equipment to be assigned to one or the other of the following two categories:

- IN = normally insulated, characterised by a K coefficient equal to or less than 0.7 W/m²°C;
- IR = heavily insulated, characterised by a K coefficient equal to or less than 0.4 W/m²°C.

An insulated wagon is commonly used to transport perishable freight (meat, fish, oil, vegetables, fruit, etc.). There are two primary types of insulated wagons: refrigerated wagons (using water ice or salt ice and heating by temporary ovens) (see [A.II-19.1](#)) and mechanically refrigerated wagons (with mechanical refrigeration and electric heating) (see [A.II-19.2](#)) depending on the refrigeration and heating methods.

Also referred to as 'insulated car'.

A.II-19.1 Refrigerated wagon

Insulated wagon using a source of cooling. Such sources include:

- 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, other than a mechanical or 'absorption' unit.

Such a wagon is capable, with a mean outside temperature of + 30 °C, of lowering the temperature inside the empty body and thereafter maintaining it, with the aid of appropriate refrigerants and fittings:

- at + 7 °C maximum in the case of class A;
- at – 10 °C maximum in the case of class B;
- at – 20 °C maximum in the case of class C;
- at 0°C maximum in the case of class D.

Also referred to as 'reefer'.

A.II-19.2 Mechanically refrigerated wagon

Insulated wagon either fitted with its own refrigerating device or serviced jointly with other such units by an external refrigerating system. Such refrigerating devices include:

- mechanical compressors;
- 'absorption' units.

A mechanically refrigerated wagon should be capable, with a mean outside temperature of + 30 °C, of lowering the temperature inside the empty body and thereafter maintaining it continuously at levels in conformity with the standards defined below.

- **Class A.** Internal wagon temperature should be maintained between + 12 °C and 0 °C inclusive.
- **Class B.** Internal wagon temperature should be maintained between + 12 °C and – 10 °C inclusive.
- **Class C.** Internal wagon temperature should be maintained between +12 °C and – 20 °C inclusive.

Also referred to as 'mechanical refrigerator car'.

A.II-19.3 Heated wagon

An insulated wagon fitted with a heater.

- **Class A.** Heated equipment for use when the mean outside temperature is – 10 °C.
- **Class B.** Heated equipment for use when the mean outside temperature is – 20 °C.

A.II-20 High sided wagon

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

Corresponds to letters E and F according to the classification for international marking defined in UIC Leaflet 438-0 and Decision (EU) 2018/1614, Appendix 6, Part 12.

Also referred to as 'high-sided gondola car'.

A.II-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.

Corresponds to letters K, L, R and S in UIC Leaflet 438-2 O and Decision (EU) 2018/1614, Appendix 6, Part 12.

Also referred to as 'flat car'.

A.II-22 Tank wagon

Wagon designed for the bulk transport of liquids or gases.

Corresponds to letter Z in UIC Leaflet 438-2 O and Decision (EU) 2018/1614, Appendix 6, Part 12.

Also referred to as 'tank car'.

A.II-23 Silo wagon

Wagon for the bulk transport of powdered products such as cement, flour, plaster, etc.

A.II-24 Wagon for intermodal transport

See [G.II-12](#).

A.II-25 Wagon carrying capacity

The maximum authorised weight a wagon can carry, excluding the wagon's own weight, but including the tare of the intermodal transport units (ITUs).

The carrying capacity of a train is the sum of the carrying capacity of all its wagons.

Also referred to as 'wagon payload'.

A.II-26 Special vehicle

Special vehicles can be grouped into the following subsets:

- a) on-track machines are vehicles specially designed for the construction and maintenance of the track and infrastructure;
- b) infrastructure inspection vehicles are vehicles utilised to monitor the condition of the infrastructure;
- c) environment vehicles are designed to clear the track of environmental conditions, such as snow;
- d) emergency vehicles are designed for specific emergency uses, such as evacuation, firefighting and train recovery (including breakdown cranes);
- e) road-rail non-passenger vehicles are self-propelled machines capable of operating on both rails and roadways.

A.II-27 Age of railway vehicle

Years since the manufacturing year, irrespective of the country of registration.

A.III Railway enterprises, investment and maintenance**A.III-01 Railway enterprise**

Private or public enterprise acting as a railway undertaking, a railway infrastructure manager or an integrated company.

An enterprise that engages in railway activities should be included if its share in the railway market is not marginal. Only activities related to railways should be reported.

The unit of measurement is the number of enterprises, equal to the number of legal units.

A.III-02 Railway undertaking (RU)

Licensed public or private transport operator that provides services for the transport of goods by rail and/or passengers by heavy rail.

Included are all transport operators that provide traction services. Excluded are railway undertakings that operate entirely off the railway lines.

If the abovementioned services are considered the main activity of the enterprise, it is classified under ISIC Rev. 5, group 49.1 and under NACE Rev. 2.1, class 49.1 (Passengers) or group 49.2 (Freight).

Also referred to as 'railroad undertaking' or 'railway transport operator'.

The principal railway undertaking within a single country is the largest undertaking in terms of passenger-kilometre or tonne-kilometre.

A.III-03 Rail infrastructure manager (IM)

Enterprise or body responsible, in particular, for establishing, managing and maintaining railway infrastructure, usually including traffic management and control-command and signalling.

If the abovementioned services are considered the main activity of the enterprise, it is classified under class 52.21 in ISIC Rev. 5 and under NACE Rev. 2.1.

Also referred to as 'rail infrastructure operator'.

A.III-04 Integrated railway company

Enterprise that fulfils the tasks of both a railway undertaking and a rail infrastructure manager.

If the abovementioned services are provided together and considered the main activity of the enterprise, it is classified under ISIC Rev. 5, group 49.1 and under NACE Rev. 2.1, group 49.1 (Passengers) or 49.2 (Freight).

A.III-05 Public transport authority

Organisation that manages public transport systems (e.g. buses, trains, subways, ferries), through contracts with public transport operators.

If the abovementioned services are considered the main activities of the enterprise, it is classified under ISIC Rev. 5 and under NACE Rev. 2.1, class 84.13.

A.III-06 Lessor of a railway vehicle

Owner of rolling stock who grants its conveyance to another party (the lessee) for a specific period of time, for monetary or other consideration, usually in the form of rent.

If the abovementioned services are considered the main activity of the enterprise, it is classified under ISIC Rev. 5, group 77.3 and under NACE Rev. 2.1., class 77.39.

A.III-07 Keeper of a railway vehicle

Entity that has usage rights over a vehicle, uses the vehicle as a means of transport and is registered as such in a vehicle register.

The types of keepers include the manufacturers, the railway undertakings, the rail infrastructure managers, the enterprises in charge of construction or maintenance of the railways, the lessors and the shippers.

A.III-08 Rail Public Service Obligation (PSO)

Requirement defined or determined by a competent authority to provide public passenger transport services in the general interest that would not normally be provided by a railway undertaking following its own commercial interests.

‘Public service compensation’ means any benefit, particularly financial, granted directly or indirectly by a competent authority from public funds during the period of implementation of a PSO or in connection with that period.

‘Exclusive right’ means a right entitling a public service operator to operate certain public passenger transport services on a particular route or network or in a particular area to the exclusion of any other such operator.

A.III-09 Commercial passenger rail services

Passenger transport services that do not fall under a PSO and generate only revenue from fare (not taking into consideration revenue from catering, station services and on-board services).

A.III-10 Rail passenger fare

Total revenue collected by a railway undertaking from the provision of rail passenger transport services during the reporting period; it excludes other income such as revenue from catering, station services and on-board services.

This revenue includes public service compensation.

A.III-11 Rail freight transport revenue

Total fees collected from the provision of rail freight transport services during the reporting period; it excludes other income such as revenue from catering, station services and on-board services.

This revenue includes public service compensation.

A.III-12 Turnover generated by rail infrastructure activities

Income from infrastructure activity, including access charges, rentals and miscellaneous receipts.

This income includes public service compensation.

A.III-13 Investment expenditure on railway infrastructure

Capital expenditure on new railway infrastructure or extension of existing railways, including reconstruction, renewal (major substitution work on the existing infrastructure that does not change its overall performance) and upgrades (major modification work improving the original performance or capacity of the infrastructure).

Infrastructure includes land as opposed to rolling stock, such as permanent way constructions, buildings, bridges and tunnels, along with the immovable fixtures, fittings and installations connected with them (signalling, telecommunications, catenaries, electricity substations, etc.).

A.III-14 Investment expenditure on rolling stock

Capital expenditure to purchase railway vehicles or to upgrade existing one.

A.III-15 Maintenance expenditure on railways infrastructure

Non-capital expenditure to maintain the original condition and capacity of the existing railway infrastructure.

A.III-16 Maintenance expenditure on rolling stock

Non-capital expenditure to maintain railway vehicles in working order without improving either their performance or their capacity.

A.III-17 Railway infrastructure capital stock

Estimated monetary value reflecting the current stock of physical railway transport infrastructure assets.

For statistical purposes, using the net capital value, which takes depreciation into account, is recommended.

There are various methods, such as the replacement cost method and the perpetual inventory method, that provide the net value of the assets.

A.IV Railway traffic

A.IV-01 Railway traffic

Movement of a railway vehicle on railway lines that are operated.

When a railway vehicle is being carried on another vehicle, only the movement of the carrying vehicle is considered.

A.IV-02 Railway traffic on national territory

Movement of railway vehicles on lines operated within a national territory, irrespective of the country in which these vehicles are registered.

It is by default the basis of statistics on railway traffic.

A.IV-03 Shunting

Operation of moving a rail vehicle or set of rail vehicles within a railway station or other operational point (see [A.I-13](#)).

This movement is excluded from the statistics on railway traffic.

A.IV-04 Railway vehicle trip

Movement of a railway vehicle from a specified point of origin to a specified point of destination.

A trip may be divided into a number of sections or stages.

A.IV-05 Train

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

A light engine is a locomotive travelling on its own and is not considered to be a train.

A.IV-06 Types of train

The main categories being considered are:

- freight (goods) train: train for the carriage of goods composed of one or more wagons and, possibly, rail vans (see [A.II-15](#)) moving either empty or loaded;
- passenger train: train for the carriage of passengers composed of one or more passenger railway vehicles and, possibly, rail vans moving either empty or loaded;
- mixed train: a train composed of passenger railway vehicles and of wagons;
- locomotives on their own (see [A.IV-05](#) for the relevance of their reporting);
- other (works) trains: trains moving solely for the requirements of the infrastructure manager, which involve no payments to third parties.

Subcategories of passenger trains include:

- *touristic train: train for the carriage of passengers not intended for practical transportation but mainly as a tour or an activity for touristic, entertainment and/or educational purposes, including heritage trains;*
- *heritage train: train designed to serve as museums or attractions for touristic, entertainment and/or educational purposes.*

A.IV-07 Train-kilometre

Unit of measurement representing the movement of a train (see [A.IV-05](#)) over one kilometre.

The distance to be considered is the distance actually travelled.

When a breakdown of the traffic in train-kilometre is requested by type of train without 'mixed' as a category, and when mixed trains cannot be classified in either the passenger transport or freight transport category, the train-kilometres travelled by them are computed separately and subsequently allocated according to one of the following methods classified by order of preference:

- *proportionately to the passenger and freight gross hauled tonne-kilometre (see [A.IV-14](#));*
- *proportionately to the passenger and freight vehicles or axle-kilometre;*
- *according to fixed coefficients.*

A.IV-08 Tractive vehicle-kilometre

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

Tractive vehicles running light (without hauling a load) are included. Shunting movements are excluded.

A.IV-09 Hauled vehicle-kilometre

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

Shunting movements are excluded.

A.IV-10 Tonne-kilometre offered by a wagon or a train

Unit of measurement representing the movement of one tonne of carrying capacity (see [A.II-25](#)), available in a wagon or a train, over one kilometre while performing services for which it is primarily intended.

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

Also referred to as net tonne-kilometre offered by a wagon or a train.

A.IV-11 Wagon-kilometre

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

The distance to be considered is that actually travelled (each country counts the kilometres performed on its territory). Shunting and other similar movements are excluded. All wagon trips are included irrespective of the ownership of the wagon.

A.IV-12 Seat-kilometre offered by a passenger rail vehicle

Unit of measurement 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 travelled. Shunting and other similar movements are excluded.

A.IV-13 Gross tonne-kilometre of a train

Unit of measurement representing the movement over a distance of one kilometre of one tonne of railway vehicle, including the weight of the tractive vehicle (i.e. the total gross tonnage of a train).

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

This indicator is collected from infrastructure managers.

Also referred to as 'gross-gross hauled tonne-kilometre' or 'gross-gross tonne-kilometre hauled'.

A.IV-14 Gross hauled tonne-kilometre (ghtk) of a train

Unit of measurement representing the movement over a distance of one kilometre of one tonne of hauled vehicles and their contents (gross hauled tonnage of a train).

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

If the net consignment weight is not known from the transport documents, notional weights may be used by type of railway vehicle.

This indicator is collected from railway undertakings.

Also referred to as 'gross tonne-kilometre hauled'.

The notions of weight are not the same in traffic (related to wagons or trains) and in transport measurement (related to goods), as explained in the schema below.

TABLE 2
Different notions of weight in rail statistics

Different notions of weight and tonne-kilometre		Elements included in weight calculations				
Related to goods	Related to trains	Goods	Packaging	Tare	Wagons	Locomotives
Net weight of goods (see A.V-19)		X				
Gross weight of goods (see A.V-18)		X	X			
Gross-gross weight of goods (see A.V-17) - most commonly used in rail transport statistics		X	X	X		
	Tonne-kilometre (tkm) carried by rail (see A.V-21) - most commonly used in rail transport statistics	x	x	x		
	Tonne-kilometre offered by a wagon or a train (see A.IV-10)	x	x	x		
	Gross hauled tonne-kilometre (gh tk) of a train (see A.IV-14)	x	x	x	x	
	Gross tonne-kilometre of a train (see A.IV-13)	x	x	x	x	x

A.IV-15 Percentage of cancelled trains

Number of cancelled trains divided by the total number of scheduled trains multiplied by 100.

This percentage is calculated by type of train (freight/passenger), possibly by subtype (domestic/international for freight; suburban and regional/conventional long-distance and high-speed for passengers).

A.IV-16 Punctuality

Number of trains arriving with a delay less than or equal to a given threshold (= 'arriving on time'), divided by the total number of trains that have not been cancelled (see [A.IV-15](#)) and multiplied by 100.

For freight trains, commonly used classes are:

- between 15 and 60 minutes;
- more than 60 minutes.

For passengers trains, commonly used classes are:

- *between 5 and 15 minutes;*
- *between 16 and 60 minutes;*
- *between 61 minutes and 120 minutes;*
- *more than 120 minutes.*

This percentage is calculated by the same type of train (freight/passenger), possibly by the same subtype as for cancelled trains (domestic/international for freight; suburban and regional/conventional long-distance and high-speed for passengers).

Different regions may have different thresholds.

A.V Rail transport measurement

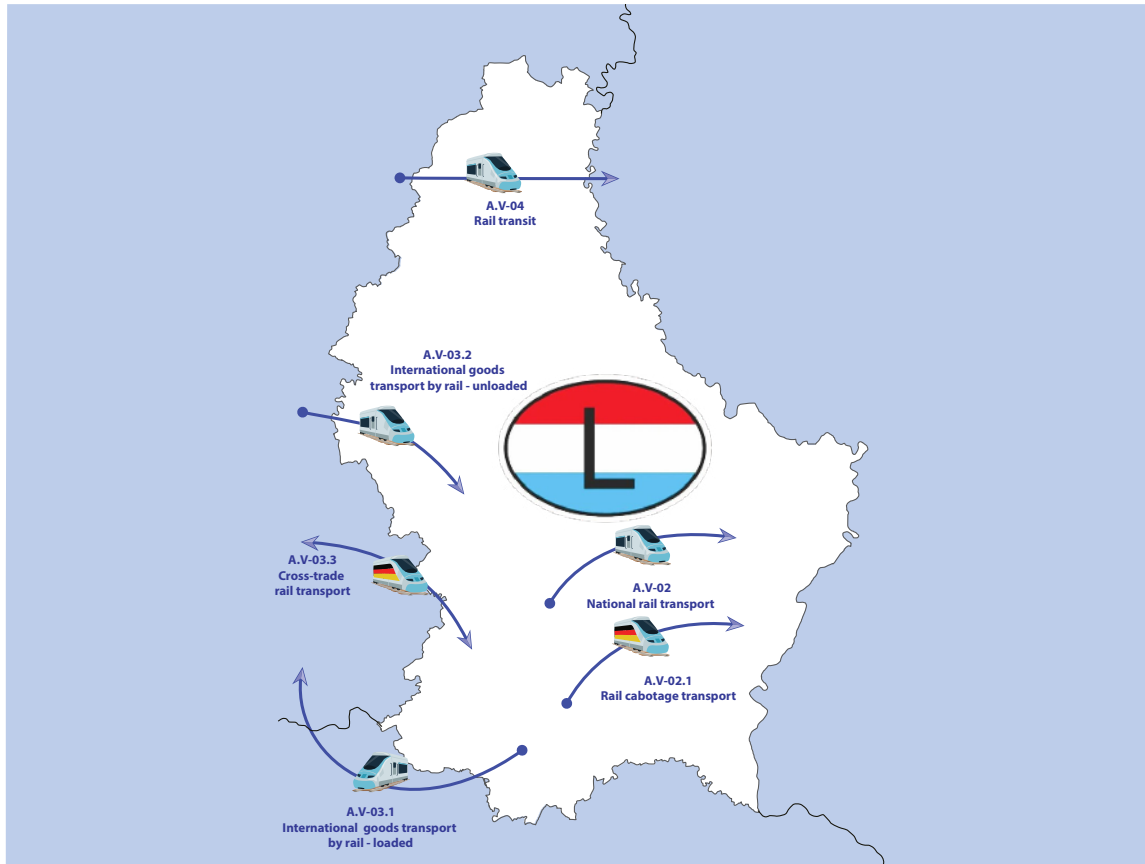
A.V-01 Rail transport

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

Most rail transport statistics are based on the territoriality principle; in other words, they are recorded in the country where the transport takes place, from the perspective of infrastructure managers.

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

Also referred to as 'railway transport'.

FIGURE 2**Types of national and international transport by rail**

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A.V-02 National rail transport

Rail transport between two places (a place of loading/embarkation and a place of unloading/disembarkation) located in the same country.

It may involve transit through a second country.

Also referred to as 'domestic railway transport'.

A.V-02.1 Rail cabotage transport

National rail transport operated by a foreign railway undertaking.

A.V-03 International rail transport

Rail transport between a place of loading/embarkation or of unloading/disembarkation in one country and a place of loading/embarkation or of unloading/disembarkation in another country.

It may involve transit through one or more additional countries. To avoid double counting, each country only counts the passenger-kilometres (see [A.V-06](#)) or tonne-kilometres (see [A.V-21](#)) performed on its territory. The number of passengers or the weight of the freight transported is counted in each country.

A.V-03.1 International goods transport by rail – loaded

Outgoing goods carried by rail between a place of loading (on a railway vehicle) located in the declaring country and a place of unloading from a railway vehicle in another country.

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

Also referred to as 'outgoing international transport'.

A.V-03.2 International goods transport by rail – unloaded

Incoming goods carried by rail between a place of loading (on a railway vehicle) located in a foreign country and a place of unloading from a railway vehicle in the declaring country.

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

Also referred to as 'incoming international transport'.

A.V-03.3 Cross-trade rail transport

Rail transport performed by a railway vehicle registered in one country between a place of loading in a second country and a place of unloading in a third country.

Such transport may involve transit through one or more additional countries.

A.V-04 Rail transit

Rail transport that passes through a country where neither the place of loading/embarkation nor the place of unloading/disembarkation is located in that country.

Operations involving a change of gauge between two different track gauges within a country are considered transit, not unloading and loading.

Transport operations involving the loading/embarkation or unloading/disembarkation of a railway vehicle at the frontier of that country from/onto another mode of transport, for example transitions between rail transport and maritime transport in ports, are not considered transit.

A.V-05 Heavy rail passenger

Person, excluding members of the train crew, who makes a trip by heavy rail.

Passengers making a trip solely by a railway-undertaking-operated ferry or bus services are excluded.

Passengers for whose transportation a rail enterprise does not receive commercial remuneration are included as well.

Stowaways or unauthorised users on freight trains and train surfers on passenger trains are excluded.

A.V-05.1 Metro, tramway, light rail urban lines passenger

Person, excluding members of the concerned transport operator, who makes a trip by metro, tramway or urban light rail lines.

A.V-05.2 Funicular and rack lines passenger

Person, excluding members of the concerned transport operator, who makes a trip by funicular or rack lines.

A.V-06 Rail passenger-kilometre (pkm)

Unit of measurement 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 travelled by the passenger on the network. To avoid double counting, each country should count only the passenger-kilometre (pkm) performed on its territory. If this is not available, then the distance charged or estimated should be used.

A.V-06.1 Metro, tramway, light rail urban lines passenger-kilometre (pkm)

Unit of measurement representing the transport of one passenger by metro, tramway or urban light rail lines respectively over a distance of one kilometre.

A.V-06.2 Funicular and rack lines passenger-kilometre

Unit of measurement representing the transport of one passenger by funicular and rack lines respectively over a distance of one kilometre.

A.V-07 Rail passenger embarked

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

A passenger transfer from one railway vehicle directly to another one, regardless of the railway transport operator, shall not be regarded as disembarkation/embarkation. Whenever, during the transfer, another mode of transport is used, this is to be regarded as disembarkation from a railway vehicle followed by a subsequent embarkation on a railway vehicle.

A.V-08 Rail passenger disembarked

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

A passenger transfer from one railway vehicle directly to another one, regardless of the railway transport operator, shall not be regarded as disembarkation/embarkation. Whenever, during the transfer, another mode of transport is used, this is to be regarded as disembarkation from a railway vehicle followed by a subsequent embarkation on a railway vehicle.

A.V-09 Rail passenger trip

Combination of the place of embarkation and the place of disembarkation of the passengers conveyed by rail regardless of the itinerary followed on the railway network.

A.V-10 Place of embarkation on a railway vehicle

Place in which a rail passenger boards the railway vehicle to be conveyed by it.

A passenger transfer from one railway vehicle directly to another one, regardless of the railway undertaking, is not regarded as disembarkation/embarkation. Whenever, during the transfer, another mode of transport is used, this is to be regarded as disembarkation from a railway vehicle followed by a subsequent embarkation on a railway vehicle.

A.V-11 Place of disembarkation from a railway vehicle

Place in which a rail passenger leaves the railway vehicle after being conveyed by it.

A passenger transfer from one railway vehicle directly to another one, regardless of the railway undertaking, is not regarded as disembarkation/embarkation. Whenever, during the transfer, another mode of transport is used, this is to be regarded as disembarkation from a railway vehicle followed by a subsequent embarkation on a railway vehicle.

A.V-12 Goods carried by rail

Goods moved by railway vehicles.

These include all packaging and equipment, such as ITUs and pallets, along with road goods vehicles carried by rail. Also referred to as 'rail freight'.

A.V-13 Goods loaded on rail

Goods placed on a railway vehicle and dispatched by rail.

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

A.V-14 Goods unloaded from rail

Goods taken off a railway vehicle after transport by rail.

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

A.V-15 Consignment

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

A.V-16 Types of consignment

The main categories are the following.

- **Full train load.** Consignment comprising a train with one or several wagon loads transported together for one consignor with no change in train composition from a single point of loading to a single point of unloading.
Also referred to as 'unit train'.
- **Full wagon load.** Consignment of goods requiring the exclusive use of a wagon throughout its trip, whether the full wagon loading capacity is utilised or not; wagons in a full train load are excluded.
Also referred to as 'carload'.
- **Smalls / small load.** Consignment other than full train loads or full wagon loads.
Also referred to as less than carload (LCL).

A.V-17 Gross-gross weight of goods carried by rail

The total weight of the goods carried, all packaging and the tare weight of the transport unit, such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), along with road goods vehicles carrying goods and transported by rail.

This is the weight to be used in the compilation of rail transport statistics (see [Table 2](#)).

Also referred to as 'net weight' or 'net tonnage carried by a wagon'.

The gross weight or gross tonnage of a wagon includes its own empty weight.

A.V-18 Gross weight of goods carried by rail

The total weight of goods carried, including packaging but excluding the tare weight of the transport unit, such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), along with road goods vehicles carrying goods.

A.V-19 Net weight of goods carried by rail

The total weight of goods carried, excluding both packaging and the tare weight of the transport unit, such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), along with road goods vehicles carrying goods.

A.V-20 Tare weight of goods carried by rail

The weight of a transport unit, such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) pallets (see [G.II-11](#)), along with road goods vehicles carrying goods and transported by rail before any cargo is loaded.

A.V-21 Tonne-kilometre (tkm) carried by rail

Unit of measurement of goods transport that represents the transport of one tonne of goods over a distance of one kilometre.

If not otherwise stated, the weight to be considered is the gross-gross weight of goods (see [A.V-17](#)).

The distance to be covered is the distance actually travelled on the relevant network. To avoid double counting, each country should count only the tkm performed on its territory. If this is not available, then the distance charged or estimated should be taken into account.

Also referred to as 'net tonne-kilometre carried by a wagon', consistent with the notion of net weight of goods carried by a wagon (see [A.V-19](#)).

A.V-22 Types of goods carried by rail

Types of goods in transport may be classified according to type.

The recommended statistical classification is NST 2007 (Standard Goods Nomenclature for Transport Statistics), which has replaced the CSTE (Commodity Classification for Transport Statistics in Europe – United Nations Economic Mission for Europe (UNECE)) nomenclature and the NST/R (Standard goods nomenclature for transport statistics/ revised – Eurostat) nomenclature.

The UIC has developed the Harmonised Commodity Code (NHM) for the data exchange of railway undertakings, based on the international standard Harmonized System (HS) used to describe and code goods in international trade published by the World Customs Organization. The NHM contains railway-specific content in Chapter 99. Bridge tables between the NHM and the NST 2007 are regularly updated.

A.V-23 Types of cargo carried by rail

Goods in rail transport may be classified according to the [UNECE – Codes for types of cargo, packages and packaging materials, Recommendation 21, 1986](#). The cargo classes are:

- liquid bulk,
- solid bulk,
- large freight container,
- other freight container,
- palletised goods,
- pre-slung goods,
- mobile, self-propelled units,

- other mobile units,
- other cargo types.

A.V-24 TEU-kilometre by rail

Unit for measuring the goods transport by containers equivalent to one twenty-foot equivalent unit (TEU) transported over a distance of one kilometre by rail.

A.V-25 Dangerous goods carried by rail

Goods classified as dangerous goods carried by rail according to the [Regulation concerning the Carriage of Dangerous Goods by Rail \(RID\)](#) are those defined by the UN Recommendations on the Transport of Dangerous Goods:

- class 1: explosives;
- class 2: gases;
- class 3: flammable liquids;
- class 4: flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases;
- class 5: oxidising substances and organic peroxides;
- class 6: toxic and infectious substances;
- class 7: radioactive material;
- class 8: corrosive substances;
- class 9: miscellaneous dangerous substances and articles, including environmentally hazardous substances.

A.V-26 Place of loading on a railway vehicle

Place in which the goods are loaded on a railway vehicle to be transported by it.

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

A.V-27 Place of unloading from a railway vehicle

Place in which the goods are unloaded from a railway vehicle after being transported by it.

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

A.V-28 Goods rail transport link

Combination of the place of loading and the place of unloading of the goods transported by rail, regardless of the itinerary followed.

Places are defined using international classification systems such as NUTS (Nomenclature of territorial units for statistics (Eurostat)).

A.VI Rail accidents

Although rail accident statistics commonly relate to heavy rail only (see [A.0-01](#)), the definitions could apply to 'other rail' (see [A.0-02](#)) as well.

In compiling statistics for rail accidents, it is essential to clearly define the boundary at which certain accidents are included or excluded. This boundary is typically the point, often marked by a signal, where a railway vehicle exits the mainline and requires authorisation to access a workshop, warehouse, depot or siding.

A.VI-01 Rail accident

Unwanted or unintended sudden event or a specific chain of such events that has harmful consequences.

Railway accidents are divided into the following categories: collisions, derailments, level crossing accidents, accidents to persons involving rolling stock in motion, fires and other.

Events in workshops, warehouses and depots are included.

A.VI-01.1 Rail collision

- **Collision of rail vehicles.** A front-to-front, front-to-end or side collision between a part of a train and a part of another train or rail vehicle, or with shunting rolling stock.
- **Collision of rail vehicle with obstacle within the clearance gauge.** An impact between a part of a train and objects fixed or temporarily present on or near the track (except at level crossings if lost by a crossing vehicle or user), including impacts with overhead contact lines.

Events in workshops, warehouses and depots are excluded (see [A.VI-01.6](#)).

A.VI-01.2 Derailment

Case in which at least one wheel of a train leaves the rails.

Events in workshops, warehouses and depots are excluded (see [A.VI-01.6](#)).

Derailments as a result of collisions are excluded and classified as collisions.

A.VI-01.3 Level crossing accident

Accident at a level crossing involving at least one railway vehicle and one or more crossing vehicles, other crossing users such as pedestrians, or other objects temporarily present at or near the track if lost by a crossing vehicle or user.

Events in workshops, warehouses and depots are excluded (see [A.VI-01.6](#)).

Also referred to as 'grade crossing accident'.

A.VI-01.4 Accident to persons involving rolling stock in motion

Accident to one or more persons who are either hit by a railway vehicle or by an object attached to, or that has become detached from, the vehicle; this includes persons who fall from railway vehicles as well as persons who fall or are hit by loose objects when travelling on board vehicles.

Events in workshops, warehouses and depots are excluded (see [A.VI-01.6](#)).

A.VI-01.5 Fires in rolling stock in motion

Fire or explosion that occurs in railway vehicles (including their load) when they are running between the departure station and the destination, including when stopped at the departure station, the destination station or intermediate stops, and during re-marshalling operations.

Events in workshops, warehouses and depots are excluded (see [A.VI-01.6](#)).

A.VI-01.6 Other rail accident

Rail accident other than a rail collision (see [A.VI-01.1](#)), a derailment (see [A.VI-01.2](#)), a level crossing accident (see [A.VI-01.3](#)), an accident to persons involving rolling stock in motion (see [A.VI-01.4](#)) or a fire in rolling stock in motion (see [A.VI-01.5](#)).

Events in workshops, warehouses and depots are included.

A.VI-02 Significant rail accident

Rail accident involving at least one rail vehicle in motion, resulting in at least one person killed or seriously injured, or in significant damage to stock, track, other installations or the environment, or in extensive disruptions to traffic, excluding accidents in workshops, warehouses and depots.

A.VI-02.1 Significant damage to rolling stock, track, other installations, or the environment

Damage that exceeds an internationally agreed threshold.

The threshold for significant damage, adopted by the UIC and the European Union ([EU Directive 2016/798 on railway safety](#)), was set at EUR 150 000 in 2007.

A.VI-02.2 Extensive disruption to rail traffic

Extensive disruption to traffic occurs when train services on at least one main railway line are suspended for six hours or more.

A.VI-03 Rail casualty

Person killed or injured as a result of a rail injury accident, excluding attempted suicides.

A.VI-04 Killed person in a rail injury accident

Person dying immediately or within 30 days as a result of a rail accident, excluding suicides.

Includes passengers, employees, trespassers and other persons involved in a rail accident.

A killed person is excluded if the competent authority declares the cause of death to be suicide, i.e. a deliberate act to injure oneself resulting in death. For countries that do not apply the threshold of 30 days, conversion coefficients are estimated so that comparisons on the basis of the 30-day definition can be made.

Also referred to as 'fatalities'.

A.VI-05 Injured person

Person who, as a result of an accident, was not killed immediately or did not die within 30 days, but sustained an injury, usually requiring medical treatment, excluding attempted suicides.

Injuries include cases such as, but not limited to, a cut, fracture, sprain or amputation.

Persons with lesser wounds, such as minor cuts and bruises, are not normally recorded as injured.

An injured person is excluded if the competent authority declares the cause of the injury to be attempted suicide by that person, i.e. a deliberate act to injure oneself resulting in injury, but not in death.

A.VI-05.1 Seriously injured person

Person injured as a result of an accident and hospitalised for more than 24 hours, excluding attempted suicides.

A.VI-05.2 Slightly injured person

Person injured, excluding those killed or seriously injured.

Persons with lesser wounds, such as minor cuts and bruises, are not normally recorded as injured.

A.VI-06 Category of person in railway accident statistics

- **Rail passenger.** See [A.V-05](#).
- **Employee or contractor.** Person whose employment is in connection with a railway and who is on duty at the time of the accident. This includes the train crew and those handling rolling stock and infrastructure installations.
- **Level crossing user.** Person using a level crossing to cross the railway line by any mode of transport or on foot.
- **Trespasser (unauthorised person on railway premises).** Person present on railway premises where such presence is forbidden, except for level crossing users.
- **Other person.** Person who is not defined as a rail passenger, an employee, a contractor, a level crossing user or a trespasser. This can be subdivided into: (a) a person on a platform; (b) a person not on a platform.

A.VI-07 Rail accident involving the transport of dangerous goods

Accident or incident that is subject to reporting in accordance with the convention concerning the [International Carriage of Dangerous Goods by Rail](#).

A.VI-08 Suicide

Deliberate act to injure oneself resulting in death, as recorded and classified by the competent national authority.

A.VI-09 Attempted suicide

Deliberate act to injure oneself resulting in serious injury, but not in death, as recorded and classified by the competent national authority.

A.VI-10 Rail incident

Occurrence, other than an accident, affecting the safety of railway operations.

A.VI-11 Precursor of a rail incident or accident

Precursor is an event that may cause an incident or an accident, but the relevant occurrence impacting the safety of rail operations has not yet materialised. A precursor should not be included in the statistics on incidents or accidents.

B

Road transport



B. Road transport

B.I Road infrastructure

B.I-01 Road

Entire surface of any way or street open to public traffic, using a stabilised base other than rails or airstrips.

Included are paved roads and other roads with a stabilised base, such as gravel roads. Roads also include streets, bridges, tunnels, supporting structures, junctions, crossings and interchanges. Toll roads and independent cycle tracks are also included.

B.I-02 Paved road

Road surfaced with crushed stone (macadam), hydrocarbon binder, bituminised agents, concrete or cobblestone.



B.I-03 Unpaved road

Road with a stabilised base not surfaced with crushed stone, hydrocarbon binder, bituminised agents, concrete or cobblestone.



B.I-04 Motorway

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

- is provided, except at special points or temporarily, with separate carriageways for traffic in two directions, separated from each other, either by a dividing strip not intended for traffic, or exceptionally by other means;
- has no crossings at the same level with any road, railway, tramway track or footpath;
- is specially signposted as a motorway and is reserved for specific categories of road motor vehicles.



The use of the motorway may be subject to the payment of a toll, and access to or exit from it may be delimited by toll booths (or toll stations).

Entry and exit lanes of motorways are included irrespective of the location of the signposts.

Urban motorways are also included.

Also referred to as 'freeway'.

B.I-05 Express road

Road reserved for motor traffic at high speed, accessible from interchanges or controlled junctions only, and that:

- a) prohibits stopping and parking on the running carriageway(s);
- b) does not cross at level with any railway or tramway track or footpath.

Entry and exit lanes are included irrespective of the location of the signposts.

Urban express roads are also included.

Motorways and express roads constitute the principal arterials.

Also referred to as 'expressway'.

B.I-06 Ordinary roads

Road that is not a motorway or express road, open to all categories of users and vehicles.

May have a single carriageway or separate carriageways.

Restrictions may apply to pedestrians or vehicles.

B.I-07 2 + 1 road

Type of road, consisting of two lanes in one direction and one lane in the other, typically alternating every few kilometres to allow periodic overtaking in both directions.

May be equipped with a median barrier and may or may not be classified as an express road.

B.I-08 Road inside a built-up area

Road within the boundaries of a built-up area, which is signposted as such at its entries and exits.

Excluded are motorways, express roads and other roads of higher speed traversing the built-up area, if not signposted as built-up roads. Streets are included.

B.I-09 Road outside a built-up area

Road outside the boundaries of a built-up area, which is signposted as such at its entries and exits.

Excluded are motorways (they are classified separately). Express roads are included.

B.I-10 Carriageway

Part of a road normally used by vehicular traffic; a road may comprise several carriageways clearly separated from one another by, for example, a central strip or a difference in level.

**B.I-11 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 motorcycles.

**B.I-12 Emergency lane**

Designated part of a road, on motorways or express roads, intended for stationary vehicles during emergencies.

The emergency lane is not part of the carriageway.

B.I-13 Bus lane

Part of a carriageway designated for buses and distinguished from the rest of the carriageway by longitudinal road markings.

Sometimes delimited by physical structures designed to prevent access to the bus lane by other vehicles (e.g. cars, lorries), such as lane curbs.

Taxis and, in some cases, high-occupancy vehicles or low-emission cars may also be permitted to use a bus lane. In some cases, other vehicles may be allowed.

**B.I-14 Tram line**

See [A.I-19](#).

B.I-15 Cycle lane

Part of a carriageway designated for use by cyclists and distinguished from the rest of the carriageway by longitudinal road markings.

Cycle lanes can be classified as advisory or mandatory, depending on whether other motor vehicles are allowed to enter the lane.

Some cycle lanes allow cyclists to ride against the flow of one-way streets (contraflow cycle lanes).

Certain types of mopeds may also be allowed to use a cycle lane. Some lanes can be available for both buses and cyclists (shared bus cycle lanes).



B.I-16 Cycle track

Independent road or part of a road designated for use by cyclists and signposted as such. A cycle track is separated from other roads or other parts of the same road by structural means.

Certain types of mopeds may also be allowed to use the cycle track.



B.I-16.1 Greenway

Independent road designated for pedestrians and cyclists, signposted as such. Its use may be open to other non-motorised users, such as horse riders, if signposted as such or defined in the national legislation.

May be divided into parts designated for different groups of users (pedestrians, cyclists, horseback riders).

The length of greenways is to be included in the length of cycle tracks.

B.I-17 Cycle street

Specially designed section of road or an area, mainly serving cycle traffic, but with (some) motorised traffic allowed. Special traffic rules apply, and it is signposted as such at its entries and exits. A cycle street is subject to special regulations depending on national legislation, which can include:

- a) a speed limit of 30 km/h;
- b) cyclists being exempt from any prohibition on travelling two or more abreast if such a prohibition exists in national legislation for other situations;
- c) drivers being forbidden from putting cyclists at risk even if travelling two or more abreast; if necessary, drivers should stop to allow cyclists to pass;
- d) parking being forbidden except where allowed by parking signs.

Cycle streets are not included in cycle tracks.



B.I-18 Cycle route

Cycle route connecting at least two points through a combination of various infrastructure types (e.g. cycle tracks, cycle lanes, cycle streets or roads with low volumes of motorised traffic) that is equipped, where appropriate, with wayfinding solutions (road direction, confirmation and identification signs or road markings). A cycle route can serve commuting, recreation, tourism or a mix of different purposes.

B.I-18.1 Cycle highway

Combination of different types of infrastructure, such as cycle tracks or cycle streets, to provide a high-quality functional cycling connection. As a backbone of a cycle network, it connects cities and/or suburbs, residential areas and major (work) places. It carries a clear name, its own visual identity, a logo, an individual identification sign and other elements that help promote it and communicate with users.

Also referred to as 'superhighways' and 'bicycle roads'.

B.I-19 Sharrows

Road markings indicating the recommended position of cyclists on the carriageway. They do not imply any restrictions or obligations, but they can serve to guide cyclists (e.g. to keep a safe distance from parked cars) on sections they share with motorised traffic. They can also warn other road users about the presence of cyclists.

Sharrows are often used in connection with contraflow cycling, on roundabouts or in places where cyclists can ride on a carriageway despite the existence of a segregated infrastructure (because, for example, the cycle track does not serve all directions on the next crossing).

B.I-20 Length of road

The distance between the start and end point of a road.

If one direction of the carriageway is longer than the other, the length is calculated as the sum of half the distances of each direction of the carriageway from the first entry point to the last exit point.

B.I-21 Speed limit of a road section

The legal speed limit imposed by road signs or by the respective country's traffic laws for each road category.

B.I-22 Types of junctions between two roads

- **Crossroad.** Road intersection with four arms.
- **Roundabout.** Circular road.
- **T or staggered junction.** Road intersection with three arms. Includes T or staggered junctions (junctions with an acute angle).
- **Multiple junction.** A junction with more than four arms (except roundabouts).
- **Interchange.** Not all roads intersect at the same level (the opposite is an **at-grade junction**).

B.I-23 Recharging pool for electric vehicles

One or more recharging stations at a specific location, including, if applicable, the dedicated parking spaces adjacent to them.

Also referred to as 'recharging location for electric vehicles'.

B.I-24 Recharging station for electric vehicles

Physical installation for the recharging of electric vehicles. Every recharging station has a theoretical maximum power output, expressed in kilowatts (kW), and has at least one recharging point that can serve only one vehicle at a time.

Also referred to as 'recharging device for electric vehicles'.

B.I-25 Recharging point for electric vehicles

Fixed or mobile, on-grid or off-grid interface for the transfer of electricity to an electric vehicle that, although it may have one or more connectors to accommodate different connector types, is capable of recharging only one electric vehicle at a time and that excludes devices with a power output less than or equal to 3.7 kW, the primary purpose of which is not the recharging of electric vehicles.

'Normal-power recharging point' means a recharging point with a power output less than or equal to 22 kW for the transfer of electricity to an electric vehicle.

'High-power recharging point' means a recharging point with a power output of more than 22 kW for the transfer of electricity to an electric vehicle.

The number of recharging points at a recharging station determines the number of vehicles that can be recharged at that station at any given time. Where more than one vehicle recharges at a recharging station at a given time, the maximum power output is distributed to the different recharging points in such a way that the power provided at each individual recharging point is lower than the power output of that recharging station.

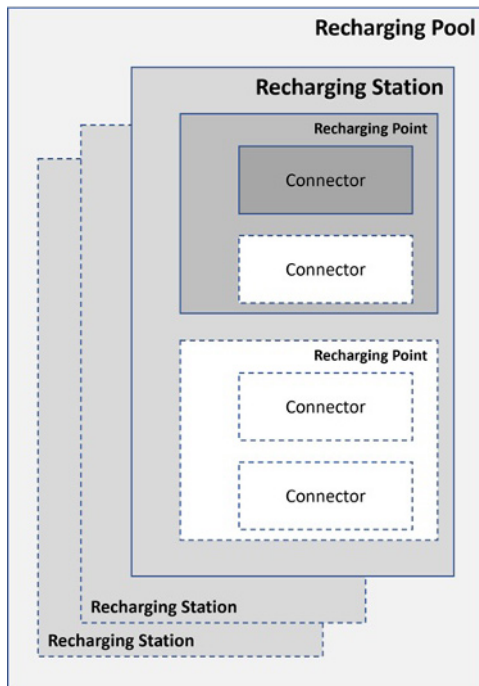
Also referred to as 'electric vehicle supply equipment for electric vehicles'.

B.I-26 Recharging point, station or pool dedicated to heavy-duty vehicles

Recharging point, station or pool intended for the recharging of heavy-duty vehicles, either due to the specific design of the connectors/plugs or to the design of the parking space adjacent to the recharging point, station or pool, or both.

FIGURE 3

Recharging infrastructure for road electric vehicles (Source: Sustainable Transport Forum)



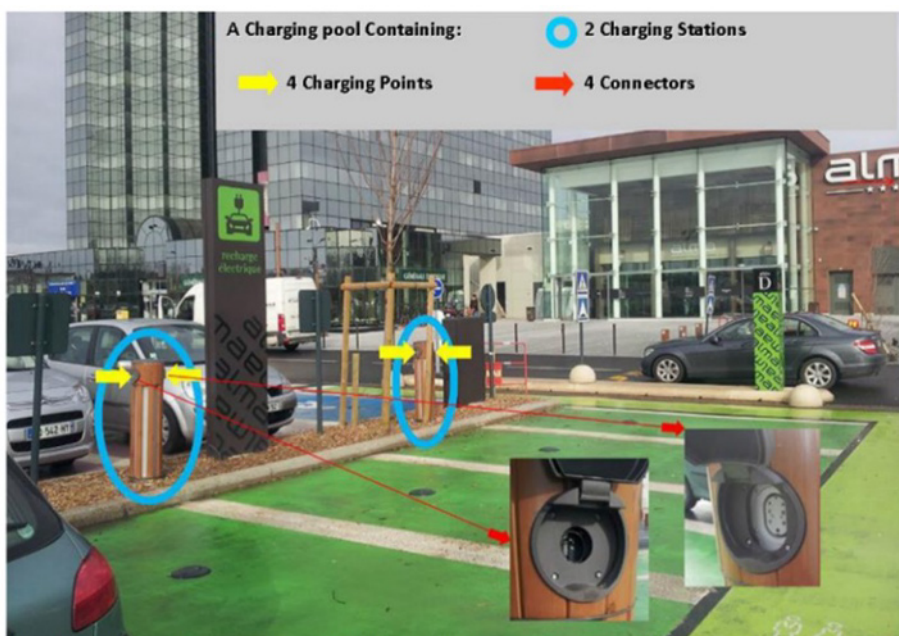
- A recharging pool can contain several recharging stations
- A recharging station can contain several recharging points
- A recharging point can contain several connectors
- Per recharging point not more than one connector can be active (used for EV recharging(at a time))

A recharging pool contains at least:

- 1 recharging station;
- 1 recharging point;
- 1 connector.

Here presented in total:

- 1 recharging pool;
- 3 recharging stations;
- 6 recharging points;
- 12 connectors.



Source: STF: Sustainable Transport Forum, SGEMS: Sub-Group to foster the creation of an Electro-mobility Market of Services

Source: Sustainable Transport Forum's Sub-Group to foster the creation of an electro-mobility market of services, edited by the European Alternative Fuels Observatory (2022).

B.I-27 Power output

The theoretical maximum power, expressed in kW, that a recharging point, station, pool or shoreside electricity supply installation can provide to vehicles or vessels connected to that recharging point, station, pool or installation.

B.I-28 Types of electric current provided in recharging points for electric vehicles

Countries should categorise their reporting on the deployment of publicly accessible recharging points as follows.

TABLE 3

Types of electric current provided in recharging points for electric vehicles

Category	Subcategory	Maximum power output	Normal or high power
Category 1 (AC)	Slow AC recharging point, single-phase	$P < 7.4 \text{ kW}$	Normal-power recharging point
	Medium-speed AC recharging point, triple-phase	$7.4 \text{ kW} \leq P \leq 22 \text{ kW}$	
	Fast AC recharging point, triple-phase	$P > 22 \text{ kW}$	
Category 2 (DC)	Slow DC recharging point	$P < 50 \text{ kW}$	High-power recharging point
	Fast DC recharging point	$50 \text{ kW} \leq P < 150 \text{ kW}$	
	Level 1 – Ultra-fast DC recharging point	$150 \text{ kW} \leq P < 350 \text{ kW}$	
	Level 2 – Ultra-fast DC recharging point	$P \geq 350 \text{ kW}$	

B.I-29 Refuelling point

Refuelling facility for the provision of any liquid or gaseous fuel, through a fixed or a mobile installation, which is capable of refuelling only one vehicle at a time.

A refuelling station means a single physical installation at a specific location, consisting of one or more refuelling points.

B.I-30 Capacity of hydrogen refuelling stations or points

The capacity of hydrogen (liquefied methane, compressed natural gas (CNG), etc.) refuelling stations or points is measured by the maximum number of tonnes per day they can deliver.

Capacity can be expressed per hour (then multiplied by 24 to obtain the capacity per day).

B.II. Road transport equipment (vehicles)

B.II-01 Road vehicle

Vehicle running on wheels and intended for use on roads.

B.II-02 Stock of road vehicles in use

Number of road vehicles registered in a country, in use and permitted to operate on roads on a given date.

Also included are cycles such as electrically power-assisted cycles (EPACs, see [B.II-09.1](#)) and personal light electric vehicles (see [B.II-10](#)), even though they are usually exempt from registration.

Their estimates should be reported by the country of residence of the user.

Road vehicles that are still administratively registered but can be estimated out of traffic (no roadworthiness test, no insurance, etc.) should be subtracted.

In annual statistics, seasonal de-registrations should not be subtracted, as the targeted indicator should reflect the road traffic for a whole year.

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

B.II-03 New vehicles registered

Vehicles registered for the first time, irrespective of the country of registration. Imported second-hand vehicles are excluded.

The standard reference period for counting and reporting new vehicles is annually, but it can also be quarterly or monthly.

B.II-04 Imported second-hand vehicles (re-registration)

Vehicles registered in a country for the first time, but previously registered in another country or countries.

These imported second-hand vehicles are excluded from 'new' vehicles.

The standard reference period for counting and reporting imported second-hand vehicles is annually, but it can also be quarterly or monthly.

Also referred to as 'new used' vehicles.

B.II-05 National road vehicle

Road vehicle registered in the reporting country and bearing registration plates of that country or separately registered under different registration plates or without any registration plates (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 person or company that is a tax resident in that country.

B.II-06 Foreign road vehicle

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

B.II-07 Road motor vehicle

Road vehicle fitted with an engine that provides its sole means of propulsion, which is normally used for carrying persons or goods by road, or for hauling, on the road, vehicles used for the carriage of persons or goods.

B.II-08 Passenger road vehicle

Road vehicle exclusively or primarily designed to carry one or more persons.

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

B.II-09 Cycle

Road vehicle that has two or more wheels and is generally propelled 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 cargo cycles).

The most common type of cycle is the bicycle.

Cycles include EPACs (see [B.II-09.1](#)).

B.II-09.1 Electrically power-assisted cycle (EPAC)

Cycle with electric assistance provided only when the cyclist is pedalling. The electric assistance cuts off when the vehicle reaches approximately 25 km/h (exact limit depends on regional regulations – 32 km/h in the United States) or when the cyclist stops pedalling.

The maximum continuous rated power should not exceed 250 W (exact limit depends on regional regulations).

Light and heavy cargo e-bikes are included.

Power-on-demand electric cycles (for which the motors can provide assistance regardless of whether the rider is pedalling) fall into the L category type approval and are classified as mopeds (see [B.II-12.1](#)).

Speed-pedelec (S-pedelec) or speed-EPAC (S-EPAC), in spite of their names, are not considered pedelec or EPAC, as they fall into the L category type approval and are classified as mopeds (see [B.II-12.2](#)).

Also referred to as 'pedelec'.



B.II-10 Personal light electric vehicle (PLEV)

Class of compact and lightweight means of transportation designed for short distances. These vehicles are designed for one person and have an electric motor that can achieve a limited maximum speed (usually up to 25 km/h). PLEVs are not included in the road motor vehicles in the sense of the [UN Consolidated Resolution on the Construction of Vehicles \(R.E.3\)](#), i.e. they are below the thresholds (power, speed) of category 'L – Motor vehicles with two, three or four wheels'.

Examples of PLEVs include the following.

- **Hoverboard.** Also known as a self-balancing scooter, it is a two-wheeled platform controlled by the rider's weight distribution.
- **Electric unicycle.** A single-wheeled, self-balancing device that offers agility and compactness.



- **Electric skateboard.** Electrically powered board that allows the rider to travel at higher speeds without pushing off the ground.
- **Electric kick scooter.** A type of electrically powered micromobility device (or PLEV). A kick scooter is a street vehicle with a handlebar, deck and two, three or four wheels, generally propelled by the user pushing off the ground with their legs, or by an electric motor.

Also referred to as 'e-scooter', 'electric push-scooter' or 'electric standing scooter'.



B.II-11 Passenger road motor vehicle

Road motor vehicle exclusively or primarily designed to carry one or more persons.

Motor vehicles cover:

- mopeds;
- motorcycles;
- passenger cars;
- buses, coaches, trolleybuses, minibuses and mini-coaches;
- trams.

Excluded are light utility vehicles (see [B.II-27](#)).

B.II-12 Moped

Two- or three-wheeled road motor vehicle fitted with an engine having a cylinder capacity of less than 50 cc in the case of a combustion engine, or a maximum continuous rated power no more than 4 kW in the case of an electric motor and a maximum authorised design speed in accordance with national regulations (usually 50 km/h). Where limitations concerning the engine displacement are not applicable, a restriction in terms of motor power may be in force. Refers to categories L₁ and L₂ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

Registered and non-registered mopeds in use are included, whether or not they have a number plate. Some countries do not register all mopeds.



B.II-12.1 Power-on-demand electric cycle

Considered as a moped, a type of power-assisted cycle where the electric assistance is provided regardless of whether the rider is pedalling.

Also referred to as 'throttle bikes' or 'pedego'.

B.II-12.2 Speed-pedelec (S-pedelec)

Considered as a moped, a type of pedal-assisted cycle where the electric assistance cuts off when the vehicle reaches approximately 45 km/h (exact limit depends on local regulations). An S-pedelec provides assistance only when the user is pedalling.

Also referred to as 'speed-EPAC'.

B.II-13 Electric cycle (e-bike)

Electrically assisted cycle. Regulatory distinctions regarding different classes of electric cycles are typically based on speed and/or power and whether the rider must be pedalling for the electric motor to engage. A vehicle that exceeds one of these thresholds or is exempt from pedalling falls under the L category type approval, i.e. see the 'B.II-12 moped' category for transport statistics.

An electric pedal-assist tricycle is a tricycle (offering enhanced stability compared to a bicycle) equipped with an electric pedal-assist system.

All non-assisted electrically powered cycles are classified as (low-performance) mopeds and would fall into the L category type approval (see [Figure 4](#)).

Most often, electric cycles are electric bicycles.

B.II-14 Electric scooter

More generally than for an electric kick scooter, a stand-up or seated scooter propelled by an electric motor, irrespective of the user kicking.

Most electric seated scooters would fall into the L category type approval and are classified as mopeds.

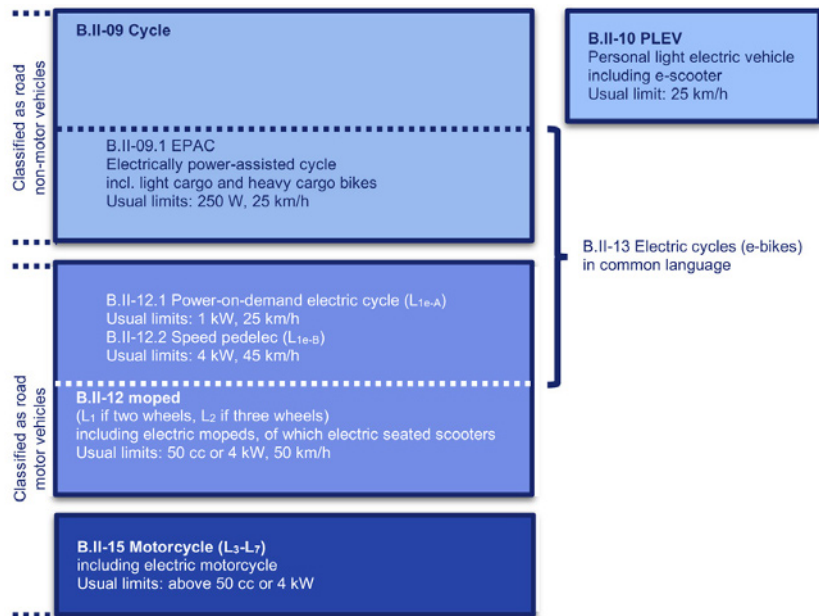
B.II-15 Motorcycle

Two-, three- or four-wheeled road motor vehicle not exceeding 400 kg of unladen weight. This includes all vehicles with a cylinder capacity of 50 cc or more for combustion engines, or a maximum continuous rated power more than 4 kW in the case of an electric motor, along with those under 50 cc or 4 kW that do not meet the definition of a moped. Refers to categories L₃, L₄, L₅, L₆ and L₇ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).



FIGURE 4

Classification of two- and three-wheeled transportation modes



B.II-16 Passenger car

Road motor vehicle, other than mopeds or motorcycles, intended for the carriage of passengers and designed to seat no more than nine persons (including the driver). Refers to category M₁ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

Included are:

- privately owned passenger cars;
- company cars;
- vans designed and used primarily for the transport of passengers (if duly registered in M₁);
- taxis;
- private hire cars;
- shared cars;
- rented cars;
- motorhomes (camper vans) below 3.5 tonnes maximum mass;
- special passenger cars (ambulances, police cars, firefighter cars etc.).

Excluded are light utility vehicles (see [B.II-27](#)), buses (see [B.II-18](#)), motor coaches (see [B.II-19](#)) and mini-buses/mini-coaches (see [B.II-20](#)).



B.II-17 Caravan

Road vehicle in trailer form designed as living accommodation for haulage by a motor vehicle.

Mainly intended for recreational purposes. It is not used for the carriage of goods or passengers. Excluded are tent trailers with a built-in tent: they are considered a trailer for the transport of goods.

B.II-18 Bus

Passenger road motor vehicle designed to carry more than 24 persons (including the driver) and with provision to carry seated and standing passengers. Refers to class I and class II of categories M₂ and M₃ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

May be constructed with areas for standing passengers, to allow frequent passenger movement, or designed to allow the carriage of standing passengers in the gangway.

Excluded are trolleybuses.



B.II-18.1 Articulated bus

Bus consisting of two or more rigid sections that articulate relative to one another; the passengers' compartments of each section intercommunicate so that passengers can move freely between them; the rigid sections are permanently connected so that they can only be separated by an operation involving facilities that are normally only found in a workshop. Articulated buses comprising two or more non-separable but articulated units shall be considered single vehicles.

B.II-19 Motor coach

Passenger road motor vehicle designed to seat 24 or more persons (including the driver) and constructed exclusively for the carriage of seated passengers. Refers to class III of categories M₂ and M₃ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

Excluded are trolleybuses.



B.II-19.1 Articulated coach

Motor coach consisting of two or more rigid sections that articulate relative to one another; the passenger compartments of each section intercommunicate so that passengers can move freely between them; the rigid sections are permanently connected so that they can only be separated by an operation involving facilities that are normally only found in a workshop. Articulated coaches comprising two or more non-separable but articulated units shall be considered single vehicles.

B.II-20 Mini-bus/mini-coach

Passenger road motor vehicle designed to carry 10–23 seated or standing persons (including the driver). Refers to class A and class B of categories M₂ and M₃ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

May be constructed exclusively to carry seated passengers or to carry both seated and standing passengers.

Excluded are trolleybuses.

**B.II-21 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.

Covers vehicles that may be used either as trolleybuses or as buses, if they have a motor independent of the main electric power supply.

**B.II-22 Tram**

See [A.II-10](#).

B.II-23 Passenger carrying capacity of motor coaches, buses and trolleybuses

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

When uncertain, the highest number of seats/berths available should be considered.

B.II-24 Goods road vehicle

Road vehicle designed, exclusively or primarily, to carry goods. Includes categories N and O of the UN Consolidated Resolution on the Construction of Vehicles (R.E. 3), or L₁, or even non-motor vehicles.

Included are:

- a) *light utility vehicles with a gross vehicle weight of not more than 3 500 kg, designed exclusively or primarily, to carry goods or equipment used by service providers, such as vans, pick-ups and two- or three-wheeled vehicles;*
- b) *heavy lorries with a gross vehicle weight above 3 500 kg;*
- c) *road tractors;*
- d) *trailers and semi-trailers;*
- e) *cargo bikes;*
- f) *cargo e-bikes.*

B.II-25 Types of body of goods road vehicle

Classification of goods road vehicles by types of their superstructures.

Classification of types of bodies of goods road vehicles includes:

- a) ordinary open box:

- with canvas cover;
- flat;
- b) tipper;
- c) tanker:
 - for solid bulk;
 - for liquid or gaseous bulk;
- d) temperature-controlled box;
- e) other closed box;
- f) skeletal container and swap-body transporter;
- g) livestock transporter;
- h) vehicle transporter;
- i) concrete mixer truck;
- j) refuse (municipal waste) collection;
- k) other.

B.II-26 Goods road motor vehicle

Single road motor vehicle designed to carry goods (e.g. a lorry) or to haul a semi-trailer or a trailer intended to carry goods. Refers to categories N₁, N₂ and N₃ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

Excluded are cargo e-bikes.

B.II-27 Light utility vehicle (LUV)

Goods road vehicle with a gross vehicle weight of not more than 3 500 kg, designed, exclusively or primarily, to carry goods. Refers to category N₁ of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

Included are vans designed for and used primarily for the transport of goods, as are pick-ups and small lorries.

B.II-28 Lorry

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

Road tractors are excluded.

Also referred to as 'truck'.



B.II-29 Road tractor

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

Excluded are agricultural tractors.

Also referred to as 'semi-trailer tractor'.

Statistics on road tractors usually exclude light road tractors (falling into category N₁).



B.II-30 Light-duty vehicle

Passenger car (category M_1 of the UN Consolidated Resolution on the Construction of Vehicles) or a light utility vehicle (category N_1 of the UN Consolidated Resolution on the Construction of Vehicles).

B.II-31 Heavy-duty vehicle

Motor coach or bus (categories M_2 or M_3 of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3)), a heavy lorry or a road tractor (categories N_2 or N_3 of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3)).

B.II-32 Agricultural or forestry tractor

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

Refers to category T of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

B.II-33 Trailer

Non-self-propelled vehicle designed and constructed to be towed by a power-driven vehicle.

With semi-trailers (see [B.II-34](#)), refers to category O of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

**B.II-33.1 Agricultural trailer**

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

While included in category O of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3), they belong to the dedicated category R in the [Regulation \(EU\) 2013/167 on the approval and market surveillance of agricultural and forestry vehicles](#).

Statistics on trailers usually focus on goods road vehicles; therefore, they exclude agricultural trailers and caravans (see [B.II-17](#)).

B.II-34 Semi-trailer

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

With trailers (see [B.II-33](#)), refers to category O of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

**B.II-35 Combination of vehicles**

Coupled vehicles that travel on the road as a unit (e.g. passenger car with caravan or trailer, lorry with trailer, etc.).

B.II-35.1 Articulated vehicle

Combination of vehicles comprising a motor vehicle and semi-trailer coupled to the motor vehicle.

Articulated buses and coaches are not articulated vehicles in this sense (see [B.II-18.1](#) and [B.II-19.1](#)).



B.II-35.2 Road train

Goods road motor vehicle coupled to a trailer.

Articulated vehicles with an additional trailer or trailers attached are included.



B.II-36 Special-purpose road motor vehicle

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

May belong to categories M, N or O of the UN Consolidated Resolution on the Construction of Vehicles (R.E.3).

This transversal category includes:

- a) motor homes (camper vans) (in M);
- b) armoured vehicles (in M or N);
- c) ambulances (in M);
- d) hearses (in M);
- e) wheelchair-accessible vehicles (in M);
- f) trailer caravans (in O);
- g) mobile cranes (in N₃);
- h) exceptional load transport motor vehicles (in N₃, a type of road tractor);
- i) fire brigade vehicles;
- j) self-propelled rollers;
- k) bulldozers with metallic wheels or tracks;
- l) vehicles for recording film, radio and TV broadcasting;
- m) mobile library vehicles;
- n) towing vehicles for vehicles in need of repair;
- o) other special-purpose road motor vehicles.



B.II-37 Automated vehicles (based on SAE J3016™ levels)

Road vehicles designed to use real-time traffic information, to be connected to and to cooperate with each other, with transport infrastructure and with vulnerable road users and to progressively take over driving tasks to improve road safety, traffic efficiency and comfort. Automated vehicles are intended to be fully integrated into existing fleets, use existing road networks and seamlessly work together with public transport systems.

Automated vehicles can be classified based on SAE J3016™ levels as outlined below.

- **Level 0 – No automation.** The full-time performance by the human driver of all aspects of the dynamic driving task, even when enhanced by warning or intervention systems.
- **Level 1 – Driver assistance.** The driving-mode-specific execution by a driver assistance system of either steering or acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task.
- **Level 2 – Partial automation.** The driving-mode-specific execution by one or more driver assistance systems of both steering and acceleration/deceleration using information about the driving environment and with the expectation that the human driver performs all remaining aspects of the dynamic driving task.
- **Level 3 – Conditional automation.** The driving-mode-specific performance by an automated driving system of all aspects of the dynamic driving task, with the expectation that the human driver will respond appropriately to a request to intervene.
- **Level 4 – High automation.** The driving-mode-specific performance by an automated driving system of all aspects of the dynamic driving task, even if a human driver does not respond appropriately to a request to intervene.
- **Level 5 – Full automation.** The full-time performance by an automated driving system of all aspects of the dynamic driving task under all roadway and environmental conditions that can be managed by a human driver.

B.II-38 Load capacity

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

When the goods road vehicle is a road train made up of a lorry with a trailer, the load capacity of the road train is the sum of the load capacities of the lorry and the trailer.

A road tractor does not have a load capacity, but a maximum towable weight consisting of the maximum mass (unladen weight + load capacity) of the semi-trailer.

Also referred to as 'payload' or 'payload capacity'.

B.II-39 Load volume

Maximum volume available in the vehicle (e.g. measured in cubic metres) for the carriage of goods.

B.II-40 Floor area within vehicle body

Maximum floor area within the vehicle body (e.g. measured in square metres) available for the carriage of goods.

B.II-41 Gross vehicle weight

Maximum total 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 unladen vehicle weight, the fuel, the cargo, the driver and/or the maximum number of persons permitted to be carried.

Also referred to as 'maximum mass', 'legally permissible maximum weight', 'permissible maximum gross weight', 'maximum permissible laden weight' or 'maximum permissible weight'.

B.II-42 Combustion engine displacement

As certified by the competent authority of the country of registration, it means:

- a) for reciprocating piston engines, the nominal engine swept volume;
- b) for rotary-piston (Wankel) engines, double the nominal engine swept volume.

Also referred to as 'cylinder capacity'.

B.II-43 Unladen vehicle weight

Weight of vehicle (or combination of vehicles) excluding its load when stationary and ready for the road, as determined by the competent authority of the country of registration.

The unladen weight may include the driver and the fuel, depending on national practice.

B.II-44 Vehicles by type of motor energy

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

For types of road motor vehicles according to this dimension, see [B.II-44.1](#) and [B.II-44.2](#).

B.II-44.1 Conventional fossil-fuel-powered vehicle

Road vehicle equipped with a primary motor fuelled by petrol (see (a)) or diesel (see (d)) and possibly with a secondary electric motor (see (b), (c), (e) and (f)), considered 'hybrid'.

- a) **Petrol vehicle.** Road motor vehicle using petrol for propulsion, containing up to 10 % bioethanol (e5 to e10).
- b) **Hybrid petrol-electric vehicle.** Road motor vehicle using petrol for propulsion, with one or more additional electric motors for propulsion, where the electric motor(s) are powered by a traction battery charged by a generator driven by the petrol engine; plug-in hybrid petrol-electric vehicles are not included.
- c) **Plug-in hybrid petrol-electric vehicle.** Hybrid petrol-electric vehicle where the traction battery can also be charged from an external electricity source (such as an electric socket). Hybrid petrol-electric vehicles are not included.
- d) **Diesel vehicle.** Road motor vehicle using diesel for propulsion, containing up to 7 % biodiesel (such as b2, b5 or b7).
- e) **Hybrid diesel-electric vehicle.** Road motor vehicle using diesel for propulsion, with one or more additional electric motors for propulsion, where the electric motor(s) are powered by a traction battery charged by a generator driven by the diesel engine. Plug-in hybrid diesel-electric vehicles are not included.
- f) **Plug-in hybrid diesel-electric vehicle.** Hybrid diesel-electric vehicle where the traction battery can also be charged from an external electricity source (such as an electric socket). Hybrid diesel-electric vehicles are not included.

Mild hybrid vehicles are not considered (full) hybrid vehicles because their battery alone cannot power the vehicle. Such vehicles are therefore counted as mere 'petrol vehicles' or 'diesel vehicles'.

B.II-44.2 Alternative-fuel-powered vehicle

Road motor vehicles equipped to receive fuels or power sources that serve, at least partly, as a substitute for fossil oil sources in the energy used for transport and that have the potential to contribute to its decarbonisation and to enhance the environmental performance of the transport sector, including:

- a) zero-emission vehicles (ZEV):
 - battery-only electric vehicles (BEV);
 - hydrogen fuel cell vehicles (FCEV);
- b) other renewable-fuel-powered vehicles:
 - biomass-fuel-powered vehicles, including biogas and biofuels;
 - synthetic- and paraffinic-fuel-powered vehicles, with fuels produced from renewable energy;
- c) non-renewable alternative-fuel-powered and transitional fossil-fuel-powered vehicles:
 - vehicles fuelled by natural gas in gaseous form (CNG) or liquefied form (liquefied natural gas (LNG));
 - vehicles fuelled by liquefied petroleum gas (LPG);

– vehicles fuelled by synthetic and paraffinic low-carbon fuels produced from non-renewable energy.

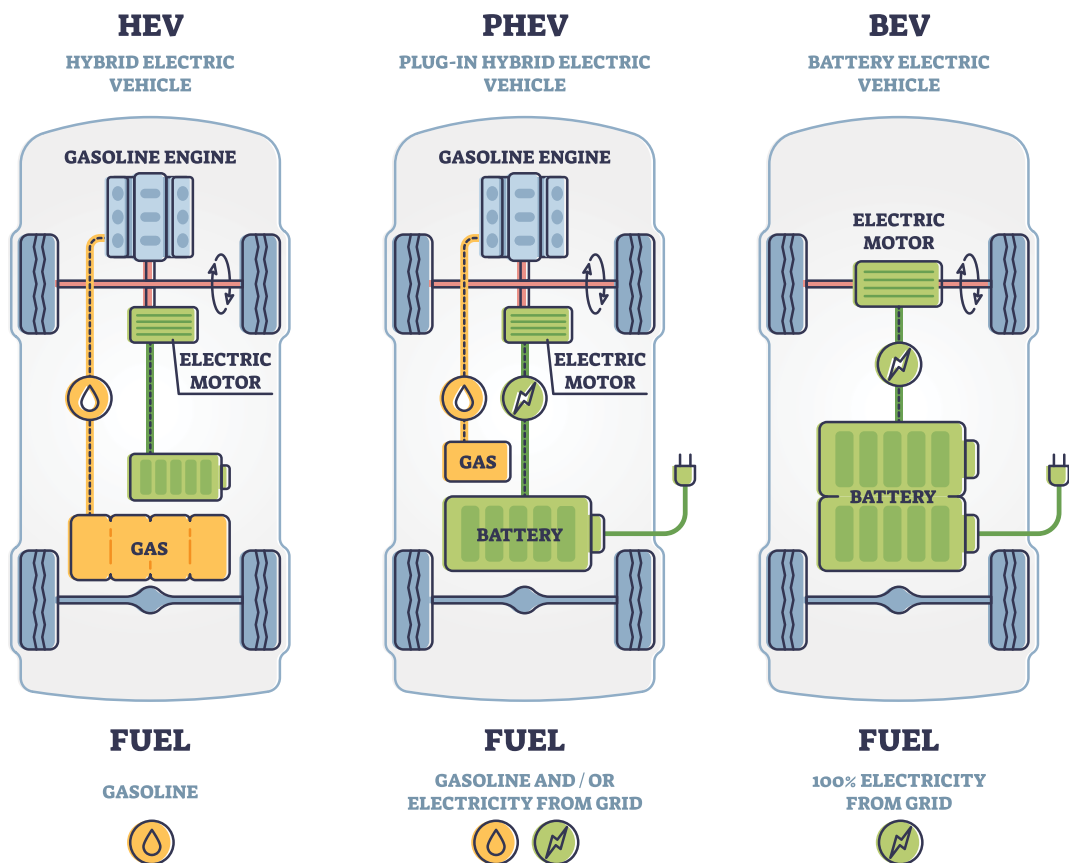
Alternative fuels do not include unleaded petrol, reformulated petrol or city (low-sulphur) diesel.

Bi-fuel vehicles adapted to use more than one type of motor energy, i.e. petrol or diesel on one hand and natural gas or LPG on the other, are classified according to the type of alternative fuel.

FIGURE 5

Types of electric road motor vehicles

TYPES OF ELECTRIC VEHICLES



B.II-45 Age of road vehicle

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

B.III. Road enterprises, investment and maintenance

B.III-01 Transport for hire or reward

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

B.III-02 Transport on own account

Transport that is not for hire or reward.

Such transport is the movement by an enterprise of its own staff or freight for its own purposes as an ancillary activity.

B.III-03 Road transport enterprise

Enterprise that carries out activities in one or more locations to provide road transport services using road vehicles.

B.III-04 Road passenger transport enterprise

Road transport enterprise offering and performing services for the transport of one or more persons (passengers), not including the driver.

If the abovementioned services are considered the main activity of the enterprise, it is classified under ISIC Rev. 5, class 49.21 (Urban and suburban passenger land transport) or class 49.22 (Other passenger land transport, including taxis and school buses) and under NACE Rev. 2.1, class 49.31 (Scheduled passenger transport by road), class 49.32 (Non-scheduled passenger transport by road), class 49.33 (On-demand passenger transport service activities by vehicle with driver) or class 49.39 (Other passenger land transport not elsewhere classified).

B.III-04.1 On-demand passenger transport service activities by vehicle with driver

Activities for road transport of nine or fewer persons, corresponding to NACE Rev. 2.1, class 49.33 (part of ISIC Rev. 5, class 49.22), include taxi services, private hire vehicles with driver (PHVs), bike taxi services and motorbike taxi services.

Taxis are often subject to fares established by authorities.

The method of hire for taxis is normally:

- a) *flagging down on the street;*
- b) *picking up at a designated taxi rank;*
- c) *telephoning;*
- d) *other electronic means (e.g. smartphone app).*

PHVs are usually not bound to fixed fares. Usually, PHVs need to be pre-booked, for example by phone call or electronic means (e.g. smartphone app, website, e-mail).

Intermediation of transportation by taxi radio services, without providing transport, is classified under ISIC Rev. 5 and NACE Rev 2.1, class 52.32.

B.III-05 Road goods transport enterprise

Road transport enterprise offering and performing services in the transport of goods (freight, furniture removal, truck rental with driver, freight transport by human-powered or animal-drawn vehicles).

If the abovementioned services are considered the main activity of the enterprise, it is classified under ISIC Rev. 5, class 49.23 (Freight transport by road) and under NACE Rev. 2.1., class 49.41 (Freight transport by road) or class 49.42 (Removal services).

B.III-06 Public road transport enterprise

Road transport enterprise that is principally owned (more than 50 % of the capital) directly or indirectly by the general government (including local authorities).

B.III-07 Public transport authority

See [A.III-05](#).

B.III-08 Services auxiliary to road transportation

Activities carried out by enterprises to support the road transport activities, such as warehousing and logistics activities, operating roads (including bridges and tunnels), operating car (or bicycle, lorry, etc.) parks or garages, freight forwarders, brokers of freight transportation or car (or bicycle, lorry, etc.) hire companies.

These activities are classified under ISIC Rev. 5, class 52.10 (Warehousing and storage), class 52.21 (Service activities incidental to land transportation), class 52.29 (Other support activities for transportation, of which freight forwarding), class 52.31 (Intermediation service activities for freight transportation, of which brokers of freight transportation), class 52.32 (Intermediation service activities for passenger transportation, of which ridesharing platforms) or class 77.10 (Rental and leasing of motor vehicles) and NACE Rev. 2.1, class 52.10 (Warehousing and storage), class 52.21 (Service activities incidental to land transportation), class 52.26 (Other support activities for transportation, of which freight forwarding), class 52.31 (Intermediation service activities for freight transportation, of which brokers of freight transportation), class 52.32 (Intermediation service activities for passenger transportation, of which ridesharing platforms), class 77.11 (Rental and leasing of cars and light motor vehicles) or class 77.12 (Rental and leasing of trucks).

B.III-09 Fleet sharing

Rental of road vehicles without a driver, available for the use of unspecific users or groups of users over time. This generally includes free floating and docked/station-based shared vehicles that can be utilised on a pay-per-kilometre or pay-per-minute basis through a digital application. Fleet sharing refers primarily to shared passenger cars, electric scooters and bicycles that are owned by a platform.

Unlike traditional car rental services, which generally require bookings for a full day or more and often involve fixed pick-up and drop-off locations, fleet sharing provides on-demand access to vehicles for shorter periods (sometimes just minutes or hours) and typically allows greater flexibility regarding where vehicles can be picked up and returned.

These activities are classified under ISIC Rev. 5, class 77.10 and NACE Rev. 2.1, class 77.11.

B.III-10 Ride-sharing

Service, typically facilitated through a digital application, that provides the traveller with access to rides where the traveller is the passenger and not the operator of the vehicle. The operator can be an employee of a platform, an independent contractor or simply another user of the platform.

Ride-sharing includes ride-sourcing (see [B.III-10.1](#)) and ride-pooling (see [B.III-10.2](#)).

Independent contractors are usually considered PHVs or taxis and are classified under NACE Rev. 2.1, class 49.33 (On-demand passenger transport service activities by vehicle with driver) (see [B.III-04.1](#)).

Ride-sharing platforms are classified under ISIC Rev. 5, class 52.32 and under NACE Rev. 2.1, class 52.32.

B.III-10.1 Ride-sourcing

Ride service that provides a single prearranged or on-demand ride in a vehicle operated by an employee or contractor of the ride-sourcing platform or in an autonomous vehicle owned or deployed by a platform. The vehicle operator acts as a chauffeur for passengers. The vehicle may be owned by the platform or the operator or leased from a third party. Vehicle operators (e.g. drivers) may themselves work for a contractor who contracts with the platform.

B.III-10.2 Ride-pooling

Service that provides one or more open seats for a single trip in a privately owned vehicle operated by another traveller. The passenger and the driver share similar or complementary destinations and then share costs. This service does not constitute an economic activity for the driver, as it does not generate value added for them (only lower costs).

When using a private ride-pooling platform, where both driver and passenger are users, the passenger pays a fee per ride, which is then split between the driver and the platform. In some cases, private ride-pooling platforms are subsidised by public agencies, corporations or institutions to reduce emissions and road congestion in their communities.

Carpooling is the most common ride-pooling service.

Also referred to as 'ride-splitting'.

B.III-11 Investment expenditure on road infrastructure

Capital expenditure on new road infrastructure or an extension of existing roads, including reconstruction, renewal (major substitution work on the existing infrastructure that does not change its overall performance) and upgrades (major modification work improving the original performance or capacity of the infrastructure).

Infrastructure, as opposed to road vehicles, includes land, permanent way constructions, buildings, bridges and tunnels, along with the immovable fixtures, fittings and installations connected with them (signalisation, telecommunications, toll collection installations, etc.).

B.III-12 Investment expenditure on road vehicles

Capital expenditure to purchase road vehicles or to upgrade existing ones.

B.III-13 Maintenance expenditure on road infrastructure

Non-capital expenditure to maintain the condition and capacity of the existing road infrastructure.

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

B.III-14 Maintenance expenditure on road vehicles

Non-capital expenditure to maintain road vehicles in working order without improving either their performance or their capacity.

B.III-15 Roads capital stock

Estimated monetary value reflecting the current stock of physical road transport infrastructure assets.

For statistical purposes, using the net capital value, which considers depreciation, is recommended. There are various methods such as the replacement cost method or the perpetual inventory method that provide the net value of the assets.

B.IV. Road traffic

B.IV-01 Road traffic

Movement of a road vehicle on a road network.

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

B.IV-02 Road traffic on national territory

Movement of a road vehicle within a national territory irrespective of the country in which the vehicle is registered.

B.IV-03 Traffic of empty road vehicles

Movement of a road vehicle for which the gross-gross weight of goods carried including that of equipment such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)) is zero. Any movement of motor coaches, buses, trolleybuses and trams without any passengers.

The movement of a road vehicle carrying empty equipment such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)) is not considered as traffic of empty road vehicles.

B.IV-04 Road traffic inside built-up areas

Movement of a road vehicle on a road inside a built-up area.

B.IV-05 Road vehicle trip

Movement of a road vehicle from a specified point of origin to a specified point of destination, for a given purpose.

A trip may consist of a number of stages.

B.IV-06 Vehicle-kilometre

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

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

B.IV-07 Seat-kilometre offered

Unit of measurement representing the movement of one seat available in a hired passenger road vehicle (see [B.III-01](#)) when performing the services for which it is primarily intended over one kilometre.

B.IV-08 Entry of a road motor vehicle into a country

Loaded or empty road motor vehicle that enters a country by road.

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

B.IV-09 Exit of a road motor vehicle from a country

Loaded or empty road motor vehicle that leaves a country by road.

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

B.IV-10 Transit of a road motor vehicle

Loaded or empty road motor vehicle that enters and leaves the country at different points by any means of transport, provided that the total trip within the country is by road and that there is no loading or unloading within the country.

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

B.IV-11 Scheduled bus and coach transport

Hired passenger road vehicle activities scheduled and performed by bus, motor coach, trolleybus, minibus or mini-coach according to a published timetable, or operating so regularly and frequently that it forms a recognisably, systematic series.

Transport may be provided by public or private enterprises.

School buses and buses for the transport of employees are included.

Also referred to as 'regular bus' and 'coach transport'.

B.IV-12 Occasional bus and coach transport

Hired passenger road vehicle activities performed by bus, motor coach, trolleybus, minibus or mini-coach not covered by scheduled transport.

This refers to coach tourism, including long-distance (national or international), short-distance, urban and interurban activities.

B.IV-13 Urban transport by bus and coach

Transport performed by a bus, motor coach, trolleybus or minibus registered in the reporting country, where both the origin and the destination are within the same urban area (see [J.III-01](#) for the definition of a functional urban area).

Such transport can be scheduled or occasional.

B.IV-14 International transport by bus and coach

Transport performed by a bus, motor coach, trolleybus or minibus registered in the reporting country, where either the origin or the destination is abroad.

Such transport can be scheduled or occasional.

The distance travelled is usually to be reported within the reporting country and outside the reporting country, separately.

B.IV-15 Odometer readings

An odometer indicates the number of kilometres (or miles) a road motor vehicle has travelled.

Regular roadworthiness inspections record these successive odometer readings with corresponding dates. The total volume of traffic (expressed in vehicle-kilometres) can then be deduced.

No information is directly available on the distance travelled in a given area, including traffic restricted to the national territory of the reporting country.

B.IV-16 Automatic traffic counts

Traffic counts performed automatically, at the selected point or section of a road, by dedicated electronic devices that process signals from detectors. Various types of detectors / detection technologies may be used, such as inductive loops, rubber tubes, video cameras, radar and laser sensors. Depending on the functionality, in addition to the overall volume of traffic in either or both directions or separate lanes, it may automatically classify vehicles in distinct categories (e.g. light vehicles, heavy vehicles or more specific divisions), measuring vehicle speed and length, number of axles, or gaps between vehicles, etc.

National and foreign vehicles are measured together on a national territory.

Some specific traffic counts can be dedicated to measuring cycling, walking or the use of certain PLEVs on specific paths.

B.IV-16.1 Annual average daily traffic (AADT)

Total number of road motor vehicles passing a point of a road, in both directions, over a year, divided by 365.

Other types of traffic volume indicators may also be distinguished, depending on analytical needs. For example, annual average weekday daily traffic, annual average weekend daily traffic, peak-hour traffic, night traffic and holiday traffic.

B.IV-17 Datex II

Data exchange standard for sharing traffic information among traffic management centres, traffic service providers, traffic operators and media partners. It contains, for example, traffic incidents, current roadworks and other special traffic-related events.

Also referred to as 'Datex2'.

B.IV-18 General Transit Feed Specification (GTFS)

Open standard used to distribute relevant information about transit systems to riders. It allows public transit agencies to publish their transit data in a format that can be consumed by a wide variety of software applications.

GTFS consists of two main parts: GTFS Schedule and GTFS Realtime.

B.IV-18.1 GTFS Schedule

Feed specification that defines a common format for static public transport information. It is composed of a collection of simple files, mostly text files (.txt), that are contained in a single ZIP file.

Each file describes a particular aspect of transit information such as stops, routes, trips, calendar, etc.

B.IV-18.2 GTFS Realtime

Feed specification that allows public transport agencies to provide up-to-date information about current arrival and departure times, service alerts and vehicle position, allowing users to smoothly plan their trips.

The specification currently supports the following types of information:

- trip updates: delays, cancellations, changed routes;
- service alerts: stop moved, unforeseen events affecting a station, route or the entire network;
- vehicle positions: information about vehicles, including location and congestion level.

B.IV-19 Tachograph

Device that records the speed and distance travelled of a vehicle and the activities (driver identity, driving time, breaks from work and daily rest periods, other periods of work or of availability) of drivers engaged in the carriage of goods or passengers by road. The purpose of a tachograph is to provide trustworthy information to enforcers monitoring compliance.

B.IV-19.1 Digital tachograph

Tachograph that digitally stores and encrypts vehicle and driver data.

Data covering a period of one year are usually available.

B.IV-19.2 Smart tachograph

Evolved digital tachograph connected with a positioning system that also records starting point, ending point, position every three hours, border crossings and certain events and faults of the vehicle.

Also referred to as 1C tachograph.

B.V. Road transport measurement

B.V-01 Road transport

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

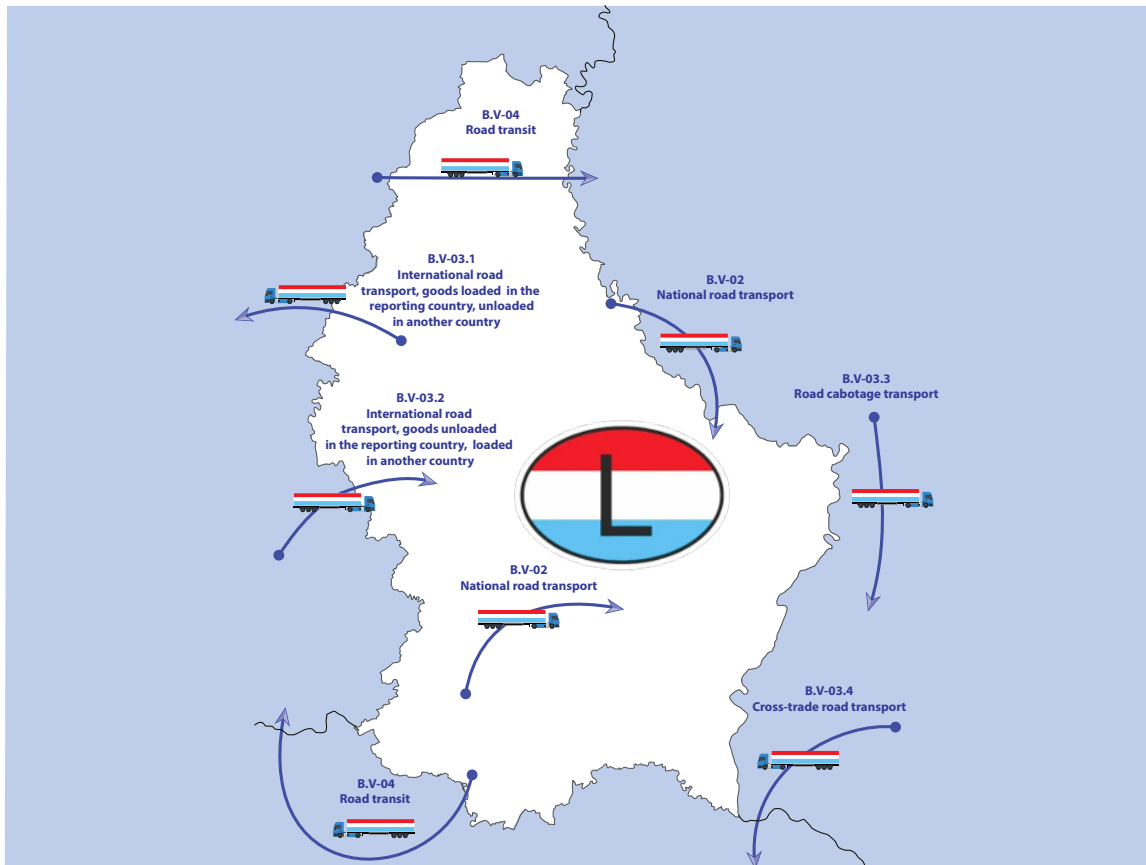
Most road transport statistics (especially road freight transport statistics) are based on the nationality principle. In other words, they are compiled according to the country in which the vehicles are registered, regardless of where the transport activity takes place.

Some definitions related to passenger transport statistics involving road transport are more appropriately provided in Chapter J (Passenger mobility).

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

FIGURE 6

Types of national and international transport by road



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B.V-02 National road transport

Road transport between two places, a place of loading (goods) / embarkation (passengers) and a place of unloading (goods) / disembarkation (passengers), located in the same country by a vehicle registered in that country. It may involve transit through one or more countries.

Uncoupling of a trailer/semi-trailer from a road motor vehicle and coupling of the trailer/semi-trailer to another road motor vehicle is considered the unloading and loading of the goods in the trailer/semi-trailer.

B.V-03 International road transport

Road transport where either the place of loading/embarkation or the place of unloading/disembarkation (or both) is in a different country from the reporting country where the vehicle is registered.

Such transport may involve transit through one or more additional countries.

B.V-03.1 International road transport, goods loaded in the reporting country, unloaded in another country

Road transport where the place of loading is in the reporting country where the vehicle is registered, but the place of unloading is in another country.

B.V-03.2 International road transport, goods unloaded in the reporting country, loaded in another country

Road transport where the place of unloading is in the reporting country where the vehicle is registered, but the place of loading is in another country.

B.V-03.3 Road cabotage transport

Road transport within a country, performed by a road motor vehicle registered in another country.

May involve transit through one or more additional countries.

B.V-03.4 Cross-trade road transport

Road transport performed by a road motor vehicle registered in one country between a place of loading/embarkation in a second country and a place of unloading/disembarkation in a third country.

May involve transit through one or more additional countries.

B.V-04 Road transit

Road transport that passes through a country where neither the place of loading nor the place of unloading is located in that country. The total trip within the country must be by road with no loading or unloading in that country.

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

B.V-05 Road passenger

Person making a trip by a road vehicle.

Drivers of passenger cars, excluding taxi drivers, count as passengers. Service staff assigned to buses, motor coaches, trolleybuses, trams and goods road vehicles are not included as passengers.

B.V-06 Road passenger-kilometre

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

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

B.V-07 Public road transport

Passenger transport by bus, motor coach, trolleybus, minibus, mini-coach or tram in scheduled or non-scheduled service, operated by either a public or private enterprise.

B.V-08 Road passenger transport link

Combination of the place of embarkation and the place of disembarkation of the passengers conveyed by road, regardless of the itinerary followed.

Places are defined using international classification systems such as NUTS.

B.V-09 Place of embarkation

Place where the passenger boarded a road vehicle to be conveyed by it.

B.V-10 Place of disembarkation

Place where the passenger alighted from a road vehicle after having been conveyed by it.

B.V-11 Goods carried by road

Goods moved by goods road vehicles.

This includes all packaging and equipment such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) or pallets (see [G.II-11](#)).

B.V-12 Gross-gross weight of goods

Total weight of the goods carried, including all packaging and the tare weight of the transport unit (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#))).

B.V-13 Gross weight of goods

Total weight of goods carried, including packaging but excluding the tare weight of the transport unit (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#))).

This is the weight to be used in the compilation of road transport statistics (see [Table 2](#)).

B.V-14 Tare weight

Weight of a transport unit (e.g. containers ([G.II-02](#)), swap-bodies (see [G.II-08](#)) and pallets (see [G.II-11](#))) before any cargo is loaded.

B.V-15 Tonne-kilometre (tkm) by road

Unit of measurement for goods transport that represents the transport of one tonne of goods by road over one kilometre.

Unless otherwise specified, the weight considered is the gross weight of goods (see [B.V-13](#)).

The distance to be taken into consideration is the actual distance travelled.

B.V-16 TEU-kilometre by road

Unit for measuring the goods transport by containers equivalent to one TEU transported over a distance of one kilometre by road.

B.V-17 Types of goods carried

Goods in transport may be classified according to type.

The recommended statistical classification is NST 2007. It has replaced the CSTE nomenclature and the NST/R nomenclature.

B.V-18 Types of cargo carried by road

Goods in road transport may be classified according to the [UNECE – Codes for types of cargo, packages and packaging materials, Recommendation 21, 1986](#). The cargo classes are:

- liquid bulk;
- solid bulk;
- large freight container;
- other freight container;
- palletised goods;
- pre-slung goods;
- mobile, self-propelled units;
- other mobile units;
- other cargo types.

B.V-19 Dangerous goods carried by road

Goods classified as dangerous goods carried by road according to the [Regulation concerning the carriage of dangerous goods by road \(ADR\)](#) are those defined by the UN Recommendations on the Transport of Dangerous Goods:

- class 1: explosives;
- class 2: gases;
- class 3: flammable liquids;
- class 4: flammable solids; substances liable to spontaneous combustion; substances that, on contact with water, emit flammable gases;
- class 5: oxidising substances and organic peroxides;
- class 6: toxic and infectious substances;
- class 7: radioactive material;
- class 8: corrosive substances;
- class 9: miscellaneous dangerous substances and articles, including environmentally hazardous substances.

B.V-20 Goods road transport link

Combination of the place of loading and the place of unloading of the goods transported by road, regardless of the itinerary followed.

Places are defined by using international classification systems such as NUTS.

B.V-21 Place of loading of goods carried by road

Place where the goods were loaded on a goods road motor vehicle or where the semi-trailer is coupled with a given road tractor.

B.V-22 Place of unloading of goods carried by road

Place where the goods were unloaded from a goods road motor vehicle or where the semi-trailer is uncoupled from a given road tractor.

B.V-23 Basic transport operation (BTO)

Transport of one type of goods (defined by reference to a particular nomenclature level, usually NST 2007) between a single place of loading and a single place of unloading.

B.VI. Road accidents

Also referred to as 'traffic accidents', 'car accidents' or 'car crashes'.

B.VI-01 Road injury accident

Accident involving at least one road vehicle in motion on a public or private road, resulting in at least one injured or killed person.

Included are collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles; and collisions involving a single road vehicle alone. Also included are collisions between road and rail vehicles. In this regard, collisions between pedestrians and rail vehicles without the presence of a road vehicle are excluded. Multi-vehicle collisions are counted as only one accident provided that any successive collisions happen within a very short time period.

Accidents resulting only in material damage are excluded from injury accidents.

A suicide (see [B.VI-17](#)) or an attempted suicide (see [B.VI-18](#)) is not an accident but an incident caused by a deliberate act to injure oneself fatally. A natural death is not an accident either. However, if a suicide, an attempted suicide or a natural death causes injury to another road user, then the incident is regarded as an injury accident. Accordingly, in cases where there are other victims of the accident, these should be counted, although the person committing or attempting suicide, or the natural death itself, should be excluded. Moreover, recording total road deaths is recommended, on a broader scope than persons killed in an accident (see [B.VI-05](#)).

Acts of terrorism or vandalism are excluded.

Also referred to as 'injury crash'.

B.VI-02 Fatal road accident

Road injury accident resulting in a person killed.

B.VI-03 Non-fatal road accident

Road injury accident other than a fatal accident.

B.VI-04 Road casualty

Person killed or injured as a result of a road injury accident.

B.VI-05 Killed person in a road injury accident

Person killed immediately or dying within 30 days as a result of a road injury accident, excluding suicides.

A killed person is excluded if the competent national authority records or classifies the cause of death to be suicide, i.e. a deliberate act to injure oneself resulting in death. For countries that do not apply 30-day threshold, conversion coefficients are estimated so that comparisons on the basis of the 30-day definition can be made.

Also referred to as 'fatalities'.

B.VI-06 Injured person

See [A.VI-05](#).

B.VI-06.1 Seriously injured person

See [A.VI-05.1](#).

B.VI-06.2 Slightly injured person

See [A.VI-05.2](#).

B.VI-07 Maximum abbreviated injury scale (MAIS)

Maximum abbreviated injury scale is a medical classification of the severity of injuries.

MAIS 1–2 are regarded as slight injuries and 3–5 as serious injuries (6 is death within 30 days of the road accident).

Other classifications can be used if they can be transcoded to MAIS.

B.VI-08 Driver involved in a road injury accident

Person involved in an injury accident who was driving or riding a road vehicle including a cycle or personal light electric vehicle at the time of the accident.

Includes persons riding an animal.

B.VI-09 Passenger involved in a road injury accident

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

B.VI-10 Pedestrian involved in a road injury accident

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

Included are persons pushing or holding a bicycle, persons using a wheelchair, a pram or a pushchair, persons leading or herding an animal, riding a toy cycle on the footway; also included are persons on (non-electric) roller skates, skateboards or skis.

Included are accidents on level crossings.

Does not include persons in the act of boarding or alighting from a vehicle.

B.VI-11 Accident between road vehicle and pedestrian

Injury accident involving one or more road vehicles and one or more pedestrians.

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

B.VI-12 Single-vehicle road accident

Injury accident in which only one road vehicle is involved.

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

B.VI-13 Multi-vehicle road accident

Injury accident involving two or more road vehicles.

The types of injury accidents involving two or more road vehicles are as follows.

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

Excluded are collisions with parked vehicles.

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

Excluded are collisions with parked vehicles.

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

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

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

Included in B.VI-13 (d) are all collisions not covered by (a), (b) and (c). The constituent element for classification of accidents between vehicles is the first collision on the carriageway, or the first mechanical impact on the vehicle.

B.VI-14 Road accident with drivers reported under the influence of alcohol, drugs or medication

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

B.VI-15 Road accident with distraction by a device

Injury accident where a driver's or pedestrian's attention was distracted by a device (either a telecommunications device or other electronic device).

Applies only to drivers or pedestrians. Other road users are excluded.

B.VI-16 Hit-and-run road accident

Accident where at least one vehicle that should have stopped at the scene of the accident failed to do so and was not recorded by the police.

B.VI-17 Suicide

See [A.VI-08](#).

Designation of individual suicide must be determined by a coroner, public police officer or other competent national authority.

Attempted suicide as an act of deliberately injuring oneself (not leading to the death) is excluded.

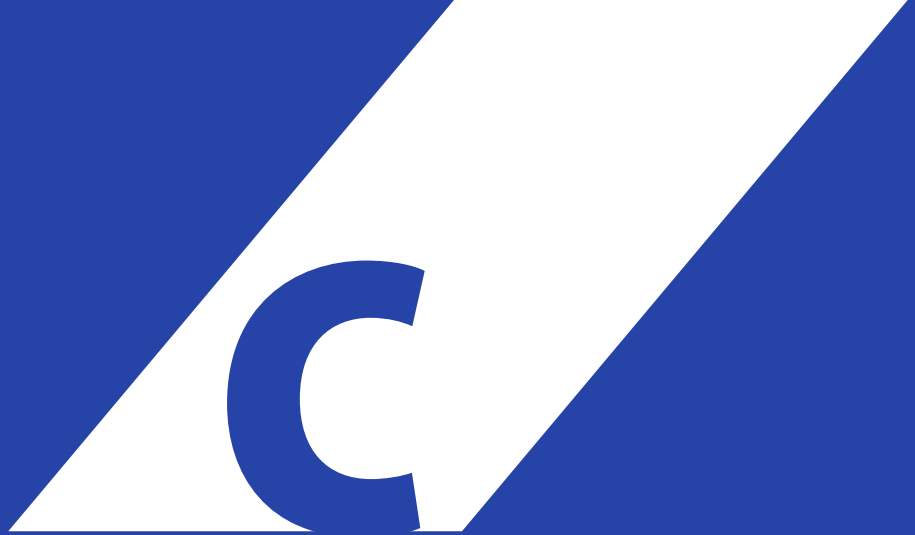
A suicide is not per se an accident (see [B.VI-01](#)) but an incident. Only the death of the individual(s) who committed suicide is to be reported as suicide. Therefore, a fatality caused to a person by another person who committed suicide or who attempted to commit suicide is not to be reported as a suicide but rather as an accident.

It is recommended that suicides and natural deaths are recorded in a 'total road deaths' aggregate, on a broader scope than persons killed in a road accident (see [B.VI-01](#) and [B.VI-05](#)).

An attempted suicide is not per se an accident (see [B.VI-01](#)) but an incident.

B.VI-18 Attempted suicide

See [A.VI-09](#).



Inland waterway transport



C. Inland waterway transport

C.I. Inland waterway infrastructure

C.I-01 Navigable inland waterway

A watercourse, not part of the sea, which by natural or man-made features is open to navigation, primarily by inland waterway vessels.

Navigable inland waterways should include rivers, canals, lakes and other bodies of water, including river estuaries. For river estuaries, the boundary is defined as the point nearest the sea where the river's width is less than 3 km at low tide and less than 5 km at high tide.

In cases where officially adopted maps or lists of inland waterways are available, they should take precedence over these criteria for determining the boundaries of navigable inland waterways for statistical purposes.

C.I-01.1 Navigable river

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

C.I-01.2 Navigable lake

Natural expanse of water open to navigation.

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

C.I-01.3 Navigable canal

Waterway built primarily for navigation.

C.I-02 Length of navigable inland waterway network

Cumulated length of all navigable inland waterways in a given area.

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. Waterways of a maritime character are excluded. A waterway forming a common frontier between two countries is reported by both.

River kilometre mark (see [C.I-16](#)) is the recommended method of measurement when available.

C.I-03 Classification of navigable inland waterways

The class of a waterway is determined by the horizontal dimensions of vessels and convoys, regardless of their type and purpose, that this waterway can accommodate. The classification is primarily based on the main standardised dimensions, namely the maximum length, beam, draught of the vessels and convoys and the minimum under-bridge clearance.

According to the 1992 UNECE / European Conference of Ministers of Transport Classification of European Inland Waterways, the different classes are defined as follows:

Class (length/beam)

I to III Up to 80 m/9 m

IV 80–85 m/9.50 m

Va	95–110 m/11.40 m
Vb	172–185 m/11.40 m
Vla	95–110 m/22.80 m
Vlb	185–195 m/22.80 m
Vlc	270–280 m/22.80 m or 195–200 m/33–34.20 m
Vll	285 m/33–34.20 m and over

In some cases, the 'load capacity of vessels' (see [C.II-22](#)) may be used to classify the navigable inland waterways.

C.I-04 Inland waterway port

Area of land and water made up of such infrastructure and equipment so as to permit principally the reception of vessels, their loading and unloading, the storage of goods, the receipt and delivery of those goods and the embarkation and disembarkation of passengers, crew and other persons and any other infrastructure necessary for transport operators within the port area.



C.I-04.1 Inland waterway passenger port

Inland waterway port with facilities to embark and disembark passengers. Such ports may also provide services such as water and electricity supply, waste clearance, etc.

C.I-04.2 Inland waterway freight port

Inland waterway port with facilities to load and unload freight.

C.I-05 Inland waterway statistical port

One or more ports, normally controlled by a single port authority or harbour master's office, capable of recording vessel and cargo movements.

C.I-06 UN/LOCODE (United Nations Code for Trade and Transport Locations)

Five-character code where the first two characters are the ISO 3166-1 alpha-2 country codes, which can be followed by a space and three-character code for the place name (see [UNECE – United Nations code for trade and transport locations, Recommendation 16, 2020](#)), together with codes supplied by Eurostat for ports not yet included in the UN system.

C.I-07 Port quay length

Total quay length in metres.

C.I-08 Roll-on/roll-off berth

Port or place of loading/unloading where roll-on/roll-off (ro-ro) cargo (see [C.V-32](#)) and ro-ro units (see [C.V-33](#)) can be loaded and unloaded without cranes, using the vessel ramps.

**C.I-09 Port cranes by lifting capacity**

Number of cranes available in ports by lifting capacity.

C.I-10 Port cranes by type

Number of cranes available in ports by type:

- mobile container cranes;
- other container cranes;
- other cranes.

C.I-11 Connections to other modes of transport

Availability and distance from ports to connections to other modes of transport in km:

- maritime shipping;
- passenger rail connection;
- freight rail connection;
- motorway access;
- airport.

C.I-12 Passenger stop

Designated and official place for passenger vessels to moor to embark and/or disembark passengers using the transport network.

C.I-13 Mooring place

Place solely for vessels where they can be securely moored for embarkation/disembarkation of passengers, cargo loading/unloading, refuelling or other purposes, not part of an inland waterway port.

C.I-14 Berth

Anchorage place for vessels in ports; a vessel's allocated place at a wharf or dock; a place in the water near the shore where a vessel can safely stop.

C.I-15 Lock

Navigable hydraulic structure for the movement of vessels and floating objects from an area of water at one level to an area of water at a different level.

Lift locks and inclined planes are included.

A lift lock is an engineering structure for transporting vessels between water at two different elevations by means of a lift.

An inclined plane, also known as water slope, is an engineering structure for transporting vessels between water at two different elevations (levels) by means of caissons, cradles, slings or water slopes.



C.I-16 Zero kilometre mark (rkm 0)

Buoy or marker post indicating the start of measuring the river distance along the fairway, denoted by river kilometre marks.

For most rivers in Europe, the rkm 0 is located near the river source, but for certain rivers (the Danube, the Sava) the rkm 0 is located at the river mouth.

For certain river sections (e.g. the Danube section from Sulina to Galati), the river distance is also measured in nautical miles (nmi).

River kilometre may include the name of the waterway (e.g. Mosel kilometre (mkm) for the Mosel or Weser kilometre (wkm) for the Weser).

C.II. Inland waterway transport equipment

C.II-01 Inland waterway vessel

Floating craft designed for the carriage of goods, passengers or specially fitted out for a specific commercial duty which navigates predominantly in navigable inland waterways or in waters within, or closely adjacent to sheltered waters or areas where port regulations apply.

Vessels under repair and fluvio-maritime vessels (see [C.II-02](#)) are included. In contrast, this category excludes harbour craft, port lighters and port tugs, fishery vessels, floating equipment and worksite craft, vessels performing hydraulic work, vessels used exclusively for storage, floating workshops, houseboats, pleasure craft and small craft.

Also referred to as 'inland navigation vessel'.

C.II-02 Fluvio-maritime vessel

Vessel intended for navigation on inland waterways and authorised for restricted navigation at sea.

Also referred to as 'sea-river vessel' or 'river-sea vessel'.

C.II-03 Seagoing vessel

See [E.II-01](#).

Even though seagoing vessels are intended mainly for navigation at sea, any movement of seagoing vessels undertaken wholly in navigable inland waterways has to be included in inland waterway traffic (see [C.IV-01](#)).

C.II-04 Inland waterway fleet

Number of inland waterway vessels registered at a given date in a country and admitted for navigation.

A vessel admitted for navigation means that it is allowed to use a specific waterway, has the necessary valid certificates, licences and other documentation issued by the competent authorities according to the applicable regulations and meets specific safety standards.

Changes in the fleet concern 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 maritime register.

C.II-05 Inland waterway freight vessel

Inland waterway vessel designed for the carriage of goods by navigable inland waterways.

C.II-06 Inland waterway container vessel

Inland waterway freight vessel fitted throughout with fixed or portable cell guides mainly for the carriage of containers.



C.II-07 Inland waterway passenger vessel

Inland waterway vessel designed specifically to carry more than 12 passengers by navigable inland waterways.

C.II-08 River cruise vessel

Inland waterway passenger vessel with overnight passenger cabins for all passengers. It is intended to provide passengers with a full tourist experience.

River cruise vessels travel primarily on rivers, stop at several ports, passenger stops and mooring places along their way, and may also operate on lakes and canals during their cruises.

Facilities for entertainment aboard are provided.

Vessels operating ferry services and inland waterway freight or container vessels able to carry up to 12 passengers and fitted with overnight passenger cabins are excluded.

For statistical purposes, sleeping berths are considered equivalent to overnight passenger cabins.



C.II-09 Inland waterway day trip vessel

Inland waterway passenger vessel without overnight passenger cabins for all passengers. It is intended for short excursions for touristic purposes.

Such excursions cover periods of up to one day, shorter part-day trips, sightseeing trips and moonlight cruises. For moonlight cruises, the vessel may spend a night out of port.

Catering may be provided.



C.II-10 Inland waterway ferry

Inland waterway passenger vessel providing a regular or frequent transport service across or along a waterway.

Along with passengers, ferries may transport passenger vehicles, road freight vehicles and/or cargo.

For statistical reporting purposes, ferries not intended for the transport of passengers are excluded.

Also referred to as 'ferry-boat'.

See also [C.V-20](#).



C.II-11 Urban inland waterway passenger vessel

Inland waterway vessel intended to operate urban inland waterway passenger transport.

Water buses and water taxis are included.

C.II-11.1 Water bus

Urban inland waterway passenger vessel intended to transport passengers only on a public scheduled service, with scheduled routes and fixed multiple stops along or across the waterway. Water buses are not designed to carry motor vehicles.

In the context of urban transport, a water bus may also be referred to as an 'urban ferry', 'harbour ferry' or simply 'ferry', when carrying passengers only and serving as part of an urban or metropolitan public transport system.

See also [C.V-21](#).



C.II-11.2 Water taxi

Urban inland waterway passenger vessel with limited passenger capacity operating on-demand public passenger transport within and around an urban or similar area, without scheduled routes and stops.

A water taxi offers more flexible and personalised service.



The passenger capacity (see [C.II-23](#)) of a water taxi rarely exceeds 20 persons.

See also [C.V-22](#).

C.II-12 Self-propelled inland waterway vessel

Inland waterway vessel using its own mechanical means of propulsion.



C.II-13 Self-propelled inland waterway freight vessel

Self-propelled inland waterway vessel intended to carry freight.

Vessels whose engines are used only to cover short distances (in harbours or at ports or places of loading/unloading) or to make them easier to handle while being towed or pushed are not classified as self-propelled. Vessels equipped solely with auxiliary engines, which may relate to both auxiliary propulsion systems and those providing power for various onboard systems, are also excluded.

Also referred to as 'inland waterway self-propelled barge'. ⁽¹⁾

C.II-14 Self-propelled inland waterway tanker

Self-propelled vessel intended for the transport of liquids or gases in fixed tanks.

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 vessels.

Also referred to as 'self-propelled tanker barge'.



C.II-15 Inland waterway barge

Non-self-propelled inland waterway freight vessel, including towed, pushed and pushed-towed barges.

Also referred to as 'inland waterway barge not self-propelled'. ⁽²⁾

C.II-15.1 Towed inland waterway barge

Non-self-propelled inland waterway freight vessel designed to be towed.

Towed barges equipped with an auxiliary engine are still classified as towed barges.

Also referred to as 'dumb barge'.

⁽¹⁾ In the context of reporting according to Regulation (EU) 2018/974 of the European Parliament and of the Council of 4 July 2018 on statistics of goods transport by inland waterways (OJ L 179, 16.7.2018, p. 14, ELI: <http://data.europa.eu/eli/reg/2018/974/oj>), the vessel type 'self-propelled barge' excludes 'self-propelled tankers'.

⁽²⁾ In the context of reporting according to Regulation (EU) 2018/974 of the European Parliament and of the Council of 4 July 2018 on statistics of goods transport by inland waterways (OJ L 179, 16.7.2018, p. 14, ELI: <http://data.europa.eu/eli/reg/2018/974/oj>), the vessel type 'barge not self-propelled' excludes 'tanker barge not self-propelled'.

C.II-15.2 Pushed inland waterway barge

Non-self-propelled inland waterway freight vessel designed to be pushed.

Pushed barges equipped with an auxiliary engine are still classified as pushed barges.

C.II-15.3 Pushed-towed inland waterway barge

Non-self-propelled inland waterway freight vessel that is designed to be either pushed or towed.

Pushed-towed barges equipped with an auxiliary engine are still classified as pushed-towed barges.

C.II-16 Inland waterway tanker barge

Inland waterway barge (see [C.II-15](#)) intended for the transport of liquids or gases in fixed tanks.

Also referred to as 'inland waterway tanker barge not self-propelled'.

C.II-17 River tug

Self-propelled vessel developing not less than 37 kW and designed to perform towing operations, but not for the carriage of cargo.

Also referred to as 'tugboat'.

Port and sea tugs are excluded.



C.II-18 Pusher

Self-propelled vessel designed or fitted to push pushed-towed barges and convoys.

A self-propelled pusher can carry goods.



C.II-19 River pusher tug

Self-propelled vessel developing not less than 37 kW and designed or fitted to propel a pushed or pushed-towed barge or convoy, but not for the carriage of cargo.

Also referred to as 'towboat', 'pushboat' or 'river pusher tug'.

Port and sea tugs are excluded.



C.II-20 Displacement of inland waterway vessel

Total weight of the vessel in tonnes that is equal to the weight of water displaced by the vessel. It includes cargo, provisions, moveable ballast, supplies (fuel, lubricating oil, fresh water, waste water, etc.), the crew and passengers onboard at a given moment.

Displacement can vary depending on the vessel's load from its lightship displacement to the maximum displacement.

For inland waterway passenger vessels, the water displacement in cubic metres is more commonly used.

C.II-20.1 Lightship displacement of inland waterway vessel

Total weight of the vessel ready for operation (i.e. including fixed equipment, engines, pipe and boiler fillings to operational levels) without crew, passengers, cargo, provisions, moveable ballast or supplies (fuel, lubricating oil, fresh water, waste water, etc.), in tonnes.

C.II-21 Deadweight tonnage of inland waterway vessel

Difference in tonnes between the maximum displacement of a vessel and the lightship displacement of the vessel, i.e. the maximum weight the vessel may carry, including cargo, provisions, moveable ballast, supplies, crew and passengers.

Also referred to as 'deadweight' or 'tonnes deadweight'.

For inland waterway passenger vessels, the water displacement in cubic metres is more commonly used.

C.II-22 Load capacity of inland waterway freight vessel

Maximum authorised weight of goods, expressed in tonnes, that an inland waterway freight vessel may carry.

Also referred to as 'loading capacity' or 'cargo carrying capacity'.

C.II-23 Passenger capacity of inland waterway passenger vessel

Maximum authorised number of passengers that an inland waterway passenger vessel may carry.

C.II-24 Power of a vessel

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

This power should be measured in effective kilowatts (kW), which is the power transmitted to the propeller:

1 kW = 1.36 horsepower (h.p.); 1 h.p. = 0.735 kW.

C.II-25 Year of construction of vessel

Year of the original construction of the hull.

C.II-26 Nationality of vessel

Country in which the vessel is registered.

What is relevant is the country of registration of the vessel itself and not the nationality of the company that owns the vessel.

C.II-26.1 National inland waterway vessel

Inland waterway vessel that is registered at a given date in the declaring country.

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

C.II-26.2 Foreign inland waterway vessel

Inland waterway vessel that is registered at a given date in a country other than the declaring country.

C.II-27 Types of vessels by source of power

Classification based on principal type of propulsion energy as certified by the competent authority.

C.II-27.1 Conventional-fuel-powered vessel

Vessel designed to use primarily a diesel engine for propulsion. Such vessels can use conventional diesel (EN 590) as fuel but also biofuels such as FAME diesel, HVO diesel, other biodiesels and synthetic diesel.

C.II-27.2 Alternative-fuel-/energy-powered vessel

Vessel that uses a type of fuel/energy other than conventional fuels (such as petrol and diesel). Alternative fuels or energy sources used by vessels operating in inland waterways may include electricity, LPG, natural gas (LNG or CNG), alcohols, mixtures of alcohols with other fuels, hydrogen, etc. (this list is not exhaustive). Alternative fuels do not include unleaded petrol, reformulated petrol or conventional diesel (EN 590).

C.II-28 Sleeping berth

Designated sleeping space for the crew or passengers.

C.II-29 Inland automatic identification system (inland AIS)

Automatic identification system (AIS) for use in inland navigation and interoperable with (maritime) AIS (see [E.II-28](#)), technically enabled by amendments and extensions to the (maritime) AIS.

The information content of inland AIS basically tallies with that of maritime AIS, while providing additional information specific to inland waterways. Both systems share basic functionality and transmit basic vessel information, but inland-specific data (like the European vessel identification number (ENI)) are only transmitted and assessed by inland AIS devices.

Inland AIS is one of the four key technologies for river information services (RIS), which provides harmonised information services to support traffic and transport management in inland navigation, including, wherever technically feasible, interfaces with other transport modes.

C.III. Inland waterway enterprises, investment and maintenance

C.III-01 Inland waterway transport enterprise

Enterprise carrying out, in one or more places, activities for the provision of inland waterway transport services.

If the abovementioned services are considered the main activity of the enterprise, it is classified under ISIC Rev. 5, class 50.21 (Inland passenger water transport) or class 50.22 (Inland freight water transport) and NACE Rev. 2.1, class 50.30 (Inland passenger water transport) or class 50.40 (Inland freight water transport).

C.III-02 Public inland waterway transport enterprise

Inland waterway transport enterprise that is principally owned (more than 50 % of the capital) by the state or public authorities and their enterprises.

C.III-03 Port authority

Person or body of persons empowered to exercise effective control in a port area. A port authority ensures the effective, safe, secure and efficient handling of shipping within the port and its offshore approaches and may be responsible for the development, construction, management and operation of the port and its industrial area, if any.

C.III-04 Inland waterway port enterprise

Enterprise carrying out, in one or more places, the provision of inland waterway port services. Pleasure port enterprises are excluded.

If the abovementioned services are considered the main activity of the enterprise, it is classified under:

- ISIC Rev. 5, class 52.22 (Service activities incidental to water transport) and class 52.24 (Cargo handling);
- NACE Rev. 2.1, class 52.22 (Service activities incidental to water transport) and class 52.24 (Cargo handling).

NB: ISIC Rev. 5, class 93.29 and NACE Rev. 2.1, class 93.29 include pleasure port activities.

C.III-05 Public inland waterway port enterprise

Inland waterway port enterprise that is principally owned (more than 50 % of the capital) by the state or public authorities and their enterprises.

C.III-06 Investment expenditure on inland waterway transport infrastructure

Capital expenditure on new inland waterway transport infrastructure or the extension of existing inland waterways, including reconstruction; renewal (major substitution work on the existing infrastructure that does not change its overall performance); upgrades (major modification work improving the original performance or capacity of the infrastructure); or major repairs (repairs improving the original performance or capacity of the infrastructure).

Infrastructure includes land, channels and permanent structures; buildings; navigation locks; mooring equipment; toll collection installations, lighthouses; bridges; port elements; and the immovable fixtures, fittings and installations connected with them (signalisation, telecommunications, bank and bottom protection, structures for fish migration, etc.), as opposed to inland waterway vessels.

C.III-07 Investment expenditure on inland waterway vessels

Capital expenditure to purchase inland waterway vessels or to upgrade existing ones.

C.III-08 Maintenance expenditure on inland waterway transport infrastructure

Non-capital expenditure to maintain the original condition and capacity of the existing inland waterway transport infrastructure.

C.III-09 Maintenance expenditure on inland waterway vessels

Non-capital expenditure to maintain inland waterway vessels in working order without improving either their performance or their capacity.

C.III-10 Inland waterway transport capital stock

Estimated monetary value reflecting the current stock of physical inland waterway transport infrastructure assets.

For statistical purposes, using the net capital value, which takes depreciation into account, is recommended.

Various methods, such as the replacement cost method or the perpetual inventory method, can be used to estimate the net value of the assets.

C.IV. Inland waterway traffic

C.IV-01 Inland waterway traffic

Movement of inland waterway vessels, including fluvio-maritime vessels (see [C.II-02](#)), that is undertaken wholly or partly on navigable inland waterways, along with any movement of seagoing vessels undertaken wholly in navigable inland waterways.

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

C.IV-02 Inland waterway traffic on national territory

Movement of a vessel within a national territory, irrespective of the country in which the vessel is registered.

C.IV-03 Movement of loaded vessel carrying freight

A single movement of a loaded vessel is counted as the movement of a vessel from the port of loading or unloading of any kind of goods to the following port of loading or unloading.

A movement of a vessel carrying equipment such as empty containers, empty swap bodies or pallets is considered a movement of a loaded vessel.

C.IV-04 Movement of empty vessel carrying freight

A single movement of an empty vessel is counted as the movement of a vessel from one port to another for which the gross-gross weight of goods equals zero.

A movement of a vessel carrying equipment such as empty containers, empty swap bodies or pallets is not considered as a movement of an empty vessel.

C.IV-05 Movement of inland waterway passenger vessel carrying passengers

A single movement is counted as the movement of a vessel from the port or place of embarkation or disembarkation of passengers to the following port or place of embarkation or disembarkation of passengers.

C.IV-06 Movement of inland waterway passenger vessel not carrying passengers

A single movement is counted as the movement of a vessel from one port or place of embarkation or disembarkation to the following port or place of embarkation or disembarkation without carrying any passengers.

C.IV-07 Trip of inland waterway freight vessel

Movement of an inland waterway vessel carrying freight from a specified point of origin to a specified point of destination.

A trip may be divided into a number of stages.

C.IV-08 Trip of inland waterway passenger vessel

Movement of an inland waterway passenger vessel from a specified point of origin to a specified and final point of destination on a given navigable inland waterway network.

C.IV-09 Vessel-kilometre

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

The distance taken into account is the distance actually travelled.

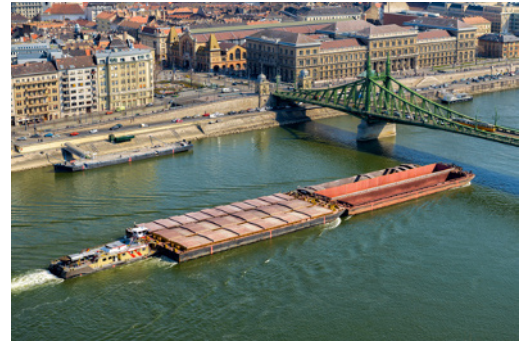
Movements of empty vessels carrying freight and passenger vessels not carrying any passengers are included.

In a convoy, each unit is counted as a vessel.

C.IV-10 Inland waterway convoy

Assembly of one or more vessels, floating establishments or assemblies of floating material that are propelled by one or more self-propelled vessels.

Convoys include towed convoys, pushed convoys and side-by-side formations.



C.IV-11 Tonne-kilometre offered by an inland waterway freight vessel

A tonne-kilometre is offered when one tonne of load capacity of an inland waterway freight vessel is transported over one kilometre. Tonne-kilometres offered are equal to the load capacity of the vessel multiplied by the distance between the port or place of loading and the port or place of unloading for all movements.

C.IV-12 Seat-kilometre offered by an inland waterway passenger vessel

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

The distance to be considered is the distance actually travelled.

C.IV-13 Entry of vessel

Entry of a loaded or empty vessel into a given country by inland waterway.

C.IV-14 Exit of vessel

Exit of a loaded or empty vessel from a given country by inland waterway.

C.IV-15 Transit of vessel

Movement of a loaded or empty vessel that enters and leaves the country at different points, provided the total transit within the country is by inland waterways and that there is no loading or unloading in the country.

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

C.V. Inland waterway transport measurement

C.V-01 Inland waterway transport

Movement of goods and/or passengers using inland waterway vessels, including fluvio-maritime vessels (see [C.II-02](#)), that is undertaken wholly or partly on navigable inland waterways, as along with the movement of goods and/or passengers using seagoing vessels undertaken wholly in navigable inland waterways.

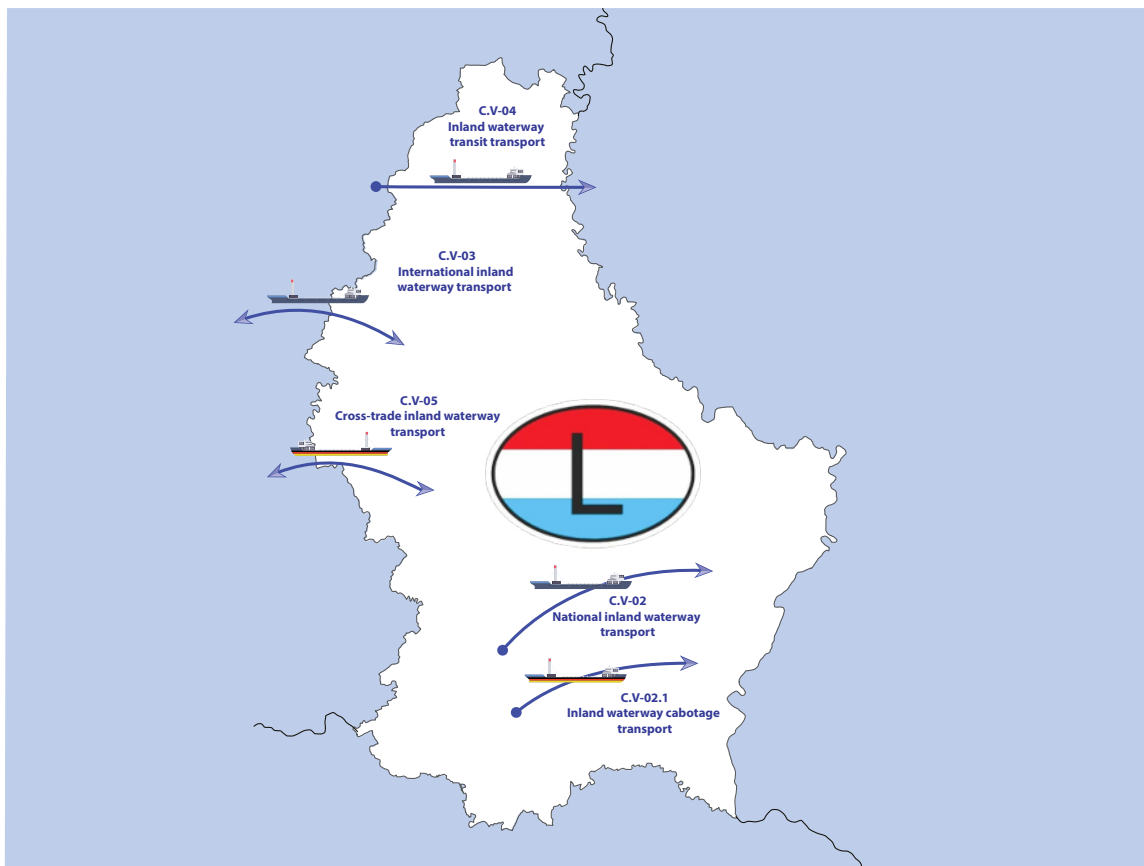
Bunkers and stores supplied to vessels in port are excluded.

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

Inland waterway transport statistics are reported based on the 'territoriality principle', which states that reporting countries shall transmit data relating to inland waterway transport in their national territory, i.e. where the transport takes place. For international inland waterway transport, when measuring the distance that goods or passengers are transported under the territoriality principle, only the distance travelled within the national territory is included.

FIGURE 7

Types of national and international transport by inland waterway



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C.V-02 National inland waterway transport

Inland waterway transport between two places (a port or place of loading/embarkation and a port or place of unloading/disembarkation) within a national territory irrespective of the country in which the vessel is registered. It may involve transit through a second country, although for this country this transport must be reported as transit.

Inland waterway cabotage transport is included.

C.V-02.1 Inland waterway cabotage transport

National inland waterway transport performed by a vessel registered in another country.

C.V-03 International inland waterway transport

Inland waterway transport between two places (a port or place of loading/embarkation and a port or place of unloading/ disembarkation) located in two different countries. It may involve transit through one or more countries. For the latter countries, this transport must be reported as transit.

C.V-04 Inland waterway transit transport

Inland waterway transport through a national territory between two places (a port or place of loading/ embarkation and a port or place of unloading/disembarkation) both located in another national territory or national territories, provided that in the total journey within the national territory, there is no loading/ embarkation and unloading/disembarkation operation.

C.V-05 Cross-trade inland waterway transport

Inland waterway transport conducted by a vessel registered in one country between a port or place of loading/ embarkation in a second distinct country and a port or place of unloading/disembarkation in a third distinct country.

Such transport may involve transit through one or more additional country or countries.

C.V-06 Fluvio-maritime transport

Transport operation partly by inland waterways and partly by sea, without transshipment. It can be operated by an inland waterway vessel or a seagoing vessel.

Any inland waterway vessel undertaking such transport will need to have the appropriate authorisation permitting it to operate at sea.

Also referred to as 'sea-river transport' or 'river-sea transport'.

C.V-07 Urban inland waterway transport

Transport carried out on inland waterways located within the boundaries of an urban area, usually targeted at commuters and other local traffic, operating usually throughout the year.

C.V-08 Inland waterway passenger

Person who makes an inland waterway movement on board a vessel.

Crew members and shipboard personnel are not regarded as passengers.

C.V-09 Distance travelled by inland waterway passenger

Length travelled by an inland waterway passenger, measured in kilometres.

C.V-10 Inland waterway passenger-kilometre

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

C.V-11 Inland waterway passenger embarked

Inland waterway passenger who boards a vessel to be conveyed by it.
Transfer from one vessel to another is regarded as embarkation after disembarkation.

C.V-12 Inland waterway passenger disembarked

Inland waterway passenger disembarking from a vessel after having been conveyed by it.
Transfer from one vessel to another is regarded as disembarkation before re-embarkation.
An inland waterway passenger who takes an excursion during a river cruise is not considered an inland waterway passenger disembarked.

C.V-13 Port or place of embarkation for inland waterway passengers

Port, place or passenger stop where inland waterway passengers are embarked on a vessel.
A transfer from one vessel to another is regarded as embarkation after disembarkation.

C.V-14 Port or place of disembarkation for inland waterway passengers

Port, place or passenger stop where inland waterway passengers are disembarked from a vessel.
A transfer from one vessel to another is regarded as disembarkation before re-embarkation.

C.V-15 Country or region of embarkation for inland waterway passengers

Country or region where inland waterway passengers are embarked on a vessel.
Regions are defined by using international classification systems such as NUTS.

C.V-16 Country or region of disembarkation for inland waterway passengers

Country or region where inland waterway passengers are disembarked from a vessel.
Regions are defined by using international classification systems such as NUTS.

C.V-17 Passenger excursion during a river cruise

Short visit by a passenger during a river cruise to a tourist attraction associated with a port, passenger stop or mooring place while retaining an overnight passenger cabin on board.

C.V-18 Inland waterway day trip

Movement of a passenger using an inland waterway passenger vessel for a short, touristic excursion. Such excursions cover periods of up to one day, shorter part-day trips, sightseeing trips and moonlight cruises.

C.V-19 River cruise

Inland waterway journey predominantly on a river cruise vessel taken for leisure and tourism and usually including several stops at ports, passenger stops and mooring places. The duration of a cruise is longer than one day.

C.V-20 Inland waterway ferry transport

Transport activities performed by an inland waterway ferry (see [C.II-10](#)) across or along a waterway between two or more ports or mooring places. They include the transport of passengers and may also include the transport of passenger vehicles, road freight vehicles and/or cargo.

There are two types:

- 1) cross waterway ferry transport between two ports or mooring places on either side of a waterway;
- 2) along waterway ferry transport to a range of ports or mooring places along a waterway.

These operate either:

- a) according to a published timetable; or
- b) with crossings so regular or frequent that they constitute a recognisably systematic series.

For statistical reporting purposes, countries are encouraged to classify transport by urban/harbour ferries and ferries primarily serving as part of an urban or metropolitan public transport system, when they carry passengers only, under the category of water bus transport (see [C.V-21](#)), rather than under inland waterway ferry transport.

C.V-21 Water bus transport

Urban inland waterway transport scheduled and performed by a water bus (see [C.II-11.1](#)) according to a published timetable, with scheduled routes and fixed multiple stops along or across the waterway. Water bus transport is commonly part of a public transport network in an urban area, functioning like a bus service on water.

For statistical reporting purposes, countries are encouraged to classify transport by urban/harbour ferries and ferries primarily serving as part of an urban or metropolitan public transport system, when they carry passengers only, under the category of water bus transport, rather than under inland waterway ferry transport (see [C.V-20](#)).

C.V-22 Water taxi transport

On-demand public or private inland waterway passenger transport performed by an operated water taxi (see [C.II-11.2](#)) within and around an urban or similar area for travel, transfer of passengers and their luggage, touristic purposes or special occasions, similar to a road-based taxi without scheduled routes and stops.

The method of hiring a water taxi commonly involves:

- a) contacting a local water taxi service or public water transit authority;
- b) using an online booking platform.

C.V-23 Goods carried by inland waterways

Goods moved by freight vessels on navigable inland waterways. These include all packaging and equipment such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) or pallets (see [G.II-11](#)).

C.V-24 Gross-gross weight of goods carried by a vessel

Total weight of goods carried, all packaging and the tare weight of the transport units (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), as well as goods road vehicles carried on the vessel).

The weight to be taken into consideration in usual inland waterway transport statistics is the gross-gross weight of goods.

C.V-25 Gross weight of goods carried by a vessel

Total weight of goods carried, including packaging but excluding the tare weight of transport units (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), as well as goods road vehicles carried on the vessel).

C.V-26 Tare weight carried by a vessel

Weight of a transport unit (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), as well as road goods vehicles carried on the vessel) before any cargo is loaded.

C.V-27 Tonne-kilometre by inland waterways

Unit of measurement of goods transport that represents the transport of one tonne by inland waterways over one kilometre.

The weight to be taken into consideration in usual inland waterway transport statistics is the gross-gross weight of goods.

C.V-28 Twenty-foot equivalent unit (TEU)

See [G.II-05](#).

C.V-29 TEU-kilometre by inland waterways

Unit for measuring the goods transported by containers equivalent to one TEU transported over a distance of one kilometre on inland waterways.

C.V-30 Types of goods carried by inland waterways

Classification of goods in transport according to type.

The recommended statistical classification is NST 2007, which has replaced the CSTE nomenclature and the NST/R nomenclature.

C.V-31 Roll-on/roll-off (ro-ro)

See [G.I-07.1](#).

C.V-32 Ro-ro cargo

Goods, whether or not in containers, on ro-ro units that are rolled on and off the vessels.

C.V-33 Ro-ro unit

Wheeled equipment for carrying goods, such as a lorry, trailer or semi-trailer, that can be driven or towed onto a vessel or train.

C.V-34 Container

See [G.II-02](#).

C.V-35 Loaded container

See [G.II-02.1](#).

C.V-36 Empty container

See [G.II-02.2](#).

C.V-37 Dangerous goods carried by inland waterways

Classes of dangerous goods carried by inland waterways are defined by the UN Recommendations on the Transport of Dangerous Goods as follows:

- class 1: explosives;
- class 2: gases;
- class 3: flammable liquids;
- class 4: flammable solids; substances liable to spontaneous combustion; substances that, on contact with water, emit flammable gases;
- class 5: oxidising substances and organic peroxides;
- class 6: toxic and infectious substances;
- class 7: radioactive material;
- class 8: corrosive substances;
- class 9: miscellaneous dangerous substances and articles, including environmentally hazardous substances.

The UN Recommendations on the Transport of Dangerous Goods were used as the basis for the [European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways](#) (ADN).

C.V-38 Goods loaded for inland waterway transport

Goods placed on a vessel and dispatched by inland waterways.

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

C.V-39 Goods unloaded after transport by inland waterways

Goods taken off a vessel after transport by inland waterways.

Transshipment from one vessel to another is regarded as unloading before reloading. The same applies to changes of pusher tugs and tugs.

C.V-40 Port or place of loading of goods carried by inland waterways

Port or place where the goods carried by inland waterways were loaded on a vessel or where pusher tugs and tugs have been changed.

C.V-41 Port or place of unloading of goods carried by inland waterways

Port or place where the goods carried by inland waterways were unloaded from a vessel or where pusher tugs and tugs have been changed.

C.V-42 Country or region of loading of goods carried by inland waterways

Country or region of ports where transported goods are loaded on a vessel.

C.V-43 Country or region of unloading of goods carried by inland waterways

Country or region of ports where transported goods are unloaded from a vessel.

C.VI. Inland waterway accidents

C.VI-01 Inland waterway transport accident

Any specific, identifiable, unexpected, unusual and unintended external event caused by, or in connection with, the operation of a vessel on inland waterways, resulting in any of the following:

1. the death of a person, or a serious injury caused by or in connection with the operation of a vessel on inland waterways; or
2. the loss of a person from a vessel operating on inland waterways, caused by or in connection with the operation of a vessel on inland waterways; or
3. the loss, presumed loss, or abandonment of a vessel operating on inland waterways; or
4. material damage to a vessel operating on inland waterways; or
5. the stranding or disabling of a vessel operating on inland waterways, or the involvement of a vessel operating on inland waterways in a collision; or
6. material damage to inland waterway infrastructure external to a vessel, which could seriously endanger the safety of the vessel, another vessel or an individual; or
7. damage to the environment resulting from damage to a vessel or vessels operating on inland waterways, caused by or in connection with the operations of a vessel or vessels operating on inland waterways.

An accident in connection with the normal operation of the vessel, including when it is in port or at anchor, is covered.

Terrorist acts, vandalism, other criminal acts and acts of war are excluded. Suicides (see [A.VI-08](#)) are excluded as they are a deliberate act to injure oneself resulting in death, as recorded and classified by the competent national authority. The death of a person due to natural causes is also excluded.

C.VI-02 Inland waterway transport injury accident

Accident involving at least one vessel on an inland waterway and resulting in at least one injured or killed person.

A suicide or attempted suicide is a deliberate act to injure oneself fatally and is therefore not considered an accident. However, if a suicide or an attempted suicide causes injury to another person on a vessel, then this is regarded as an injury accident.

An injury accident excludes accidents involving only material damage.

C.VI-03 Inland waterway transport fatal injury accident

Injury accident resulting in the death of a person.

C.VI-04 Inland waterway transport non-fatal injury accident

Injury accident other than a fatal accident.

C.VI-05 Person killed in inland waterway transport accident

Person killed immediately or dying within 30 days as a result of an injury accident, excluding suicides.

A killed person is excluded if the competent authority declares that the cause of death was due to natural causes or suicide, i.e. a deliberate act to injure oneself resulting in death.

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

C.VI-06 Person lost in inland waterways

Person missing in inland waterways, presumed to have gone overboard.

C.VI-07 Injured person

See [A.VI-05](#).

C.VI-07.1 Seriously injured person

See [A.VI-05.1](#).

C.VI-07.2 Slightly injured person

See [A.VI-05.2](#).

C.VI-08 Inland waterway transport accident involving transport of dangerous goods

Inland waterway transport accident involving a vessel carrying any of the classes of dangerous goods defined by the ADN classification (see [C.V-37](#)).



Pipeline transport



D. Pipeline transport

D.I. Pipeline infrastructure

D.I-01 Pipeline

Closed conduit equipped with pumps, valves and control devices for conveying liquids, fluids, gases or finely divided solids by pumping or compression and used for short- or long-distance transport.

Only pipelines that actually perform an activity during the reference period should be considered. 'Dormant' pipelines or those that have not yet begun their activity are excluded.

D.I-02 Pipeline facility

New and existing piping, rights-of-way and any equipment, facility or building used in the transport of liquids, fluids, gases or finely divided solids, or in the treatment of gas during transport.

Also referred to as 'pipeline infrastructure'.

D.I-03 Pipeline network

All pipelines that are operated and/or constructed in a given area for the transmission of liquids or gases.

Pipelines within a national territory include pipelines on the seabed of the country.

D.I-04 Oil pipeline

All parts of a pipeline facility through which oil or petroleum products are transmitted.

Includes line pipe, valves and other appurtenances connected to line pipe, pumping units, fabricated assemblies associated with pumping units, metering and delivery stations and fabricated assemblies therein and breakout tanks. They are used both for short-distance transport (e.g. within a refinery or depot) and long-distance transport.

D.I-05 Gas pipeline

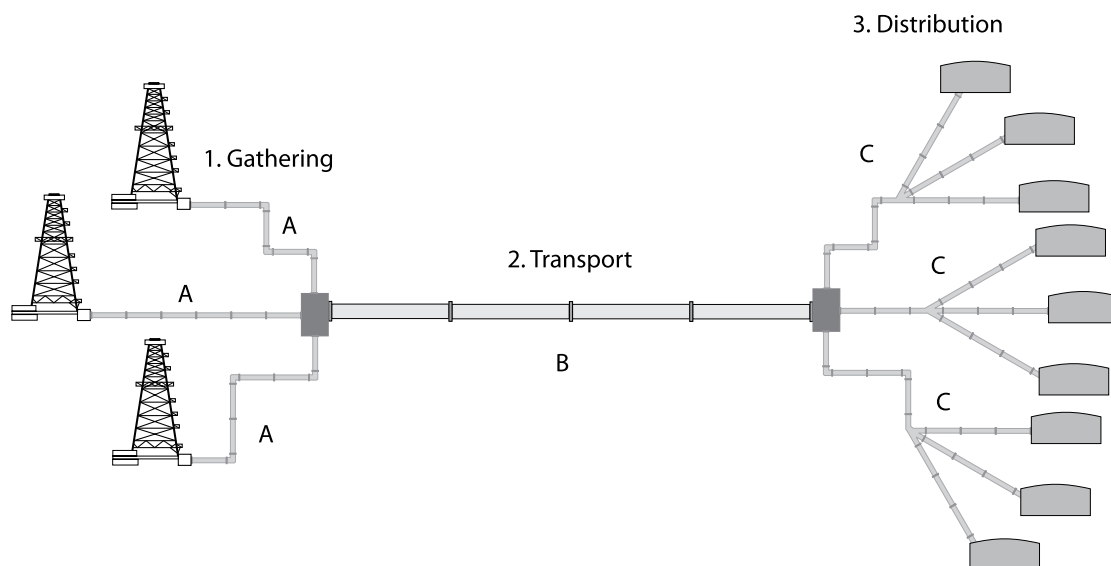
All parts of a pipeline facility, completed with such equipment as valves, compressor stations, communication systems and meters for transporting natural and/or supplemental gas from one point to another, usually from a point in or beyond the producing field or processing plant to another pipeline or to points of utilisation.

D.I-06 Types of oil and gas pipelines

Pipelines can be classified into three main categories depending on their main purpose: gathering pipelines, transport pipelines or distribution pipelines.

FIGURE 8

Types of oil and gas pipelines



D.I-06.1 Gathering pipelines

Group of smaller interconnected pipelines forming complex networks with the main purpose of bringing crude oil or natural gas from several nearby wells to a treatment plant or processing facility.

In this group, pipelines are usually short (several hundred metres) and have small diameters. Sub-sea pipelines for collecting product from deep-water production platforms are also considered gathering systems.

D.I-06.2 Transport pipelines

Mainly long pipes with large diameters, moving products (oil, gas, refined products) between cities, countries and even continents. These transport networks include several compressor stations in gas lines or pump stations for crude and multi-product pipelines.

Also referred to as 'trunk pipelines' or 'operated pipelines'.

Branch lines, where they satisfy the requirements for transport pipelines, are included, as are pipelines between the land and drilling platforms at sea. Excluded are pipelines if their total length is less than 50 km or their internal diameter is less than 15 cm; pipelines used only for military purposes; pipelines located entirely within the site boundaries of an industrial operation; and pipelines that are entirely offshore (i.e. located solely out in the open sea). International pipelines with a total length of 50 km or more are included even if the section in the declaring country is less than 50 km long. Pipelines consisting of two (or more) parallel pipelines are to be counted twice (or more).

D.I-06.3 Distribution pipelines

Composed of several interconnected pipelines with small diameters, used to deliver the products to the final consumer.

Refers primarily to feeder lines that distribute gas to homes and businesses downstream. Pipelines at terminals that distribute final products to tanks and storage facilities are also included in this group.

D.I-07 Pipeline transport capacity

Maximum tonnage of the product that the pipeline is able to transmit during a given period.

In the case of multi-product pipelines, either the average density of the products or the density of the product that is predominantly moved through the pipeline shall be used to convert the capacity – which is usually measured in barrels or in cubic metres per given period – into tonnes.

D.II. Pipeline enterprises, investment and maintenance

D.II-01 Pipeline transport enterprise

Private or public enterprise carrying out in one or more places activities for the provision of transport services through pipelines.

If the abovementioned services are the main activities of the enterprise, the enterprise is classified under ISIC Rev. 5, group 49.3 and under NACE Rev. 2.1, group 49.5.

Also referred to as 'pipeline transport undertaking'.

D.II-02 Public pipeline transport enterprise

Pipeline transport enterprise that is principally owned (more than 50 % of the capital) by the country or public authorities and their enterprises.

Also referred to as 'public pipeline transport undertaking'.

D.II-03 Investment expenditure on pipeline infrastructure

Capital expenditure on new pipeline infrastructure or extension of existing pipelines, including reconstruction, renewal (major construction work on the existing infrastructure which does not change its overall performance) and upgrades (major modification work improving the original performance or capacity of the infrastructure).

Infrastructure includes land, pipeline constructions, buildings, pumping and compression facilities, along with the immovable fixtures, fittings and installations connected with them (safety systems, telecommunications, etc.).

D.II-04 Maintenance expenditure on pipeline infrastructure

Non-capital expenditure to maintain the original condition and capacity of the existing pipeline infrastructure.

D.II-05 Pipeline capital stock

Estimated monetary value reflecting the current stock of physical pipeline transport assets.

For statistical purposes, using the net capital value, which takes depreciation into account, is recommended. There are various methods, such as the replacement cost method or the perpetual inventory method, that provide the net value of the assets.

D.III. Pipeline transport measurement

D.III-01 Pipeline transport

Movement of liquids, fluids, gases or finely divided solids in a given transport pipeline network.

D.III-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 the part of the seabed that is allocated to it. It may involve transit through other countries.

D.III-03 National gas pipeline transport

Gas pipeline transport between two places (an initial compression facility and a decompression facility) located in the same country or in the part of the seabed that is allocated to it. It may involve transit through other countries.

D.III-04 International oil pipeline transport

Oil pipeline transport between two places (a pumping-in place and a pumping-out place) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

D.III-05 International gas pipeline transport

Gas pipeline transport between two places (an initial compression facility and a decompression facility) located in two different countries or on those parts of the seabed allocated to them. It may involve transit through one or more additional countries.

D.III-06 International pipeline transport – products delivered

Goods that, having been loaded into a pipeline by pumping or compression in one country, or that part of the seabed allocated to it, left the country by pipeline and were delivered to another country.

D.III-07 International pipeline transport – products received

Goods that, having been loaded into a pipeline by pumping or compression in another country, or that part of the seabed allocated to it, entered the country by pipeline and were delivered there.

D.III-08 International pipeline transport – transit throughout

Goods that entered the country by pipeline and left the country by pipeline at a point different from the point of entry, after having been transported across the country solely by pipeline.

Goods that entered and/or left the country in question by vessels before loading into a pipeline by pumping or compression, or after delivery from a pipeline at the frontier, are included.

D.III-09 Type of goods transported by pipeline

The most typical goods transported by pipeline are classified as follows:

- any gas, natural or manufactured, liquefied or in the gaseous state (Standard International Trade Classification (SITC)/Rev. 4, Division 34; NST 2007, group 02.3);
- crude oil (SITC/Rev. 4, group 333; NST 2007, group 02.2);
- refined petroleum product (SITC/Rev. 4, group 334; NST 2007, group 07.2);
- chemical product (SITC/Rev. 4, Section 5; NST 2007, Division 08).

D.III-09.1 Natural gas

See [H.II-15](#).

To facilitate its transportation, natural gas may be converted to liquid form by reducing its temperature to – 160 °C under atmospheric pressure. It then becomes liquefied natural gas (LNG).

D.III-09.2 Liquefied petroleum gas (LPG)

See [H.II-01](#).

D.III-09.3 Crude oil

Mixture of hydrocarbons that exists in the liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities.

D.III-09.4 Refined petroleum products

Refined petroleum products include but are not limited to gasoline, kerosene, distillates (including No 2 fuel oil), liquefied petroleum gas, asphalt, lubricating oils, diesel fuels and residual fuels.

D.III-10 Tonne-kilometre by pipeline

Unit of measurement of transport that represents the transport of one tonne of goods by pipeline over one kilometre.

The distance taken into account is the distance actually transported.

D.III-11 Goods pipeline transport link

Combination of the loading place (by pumping or compression) and the delivery place of the goods transported by pipeline, regardless of the route taken.

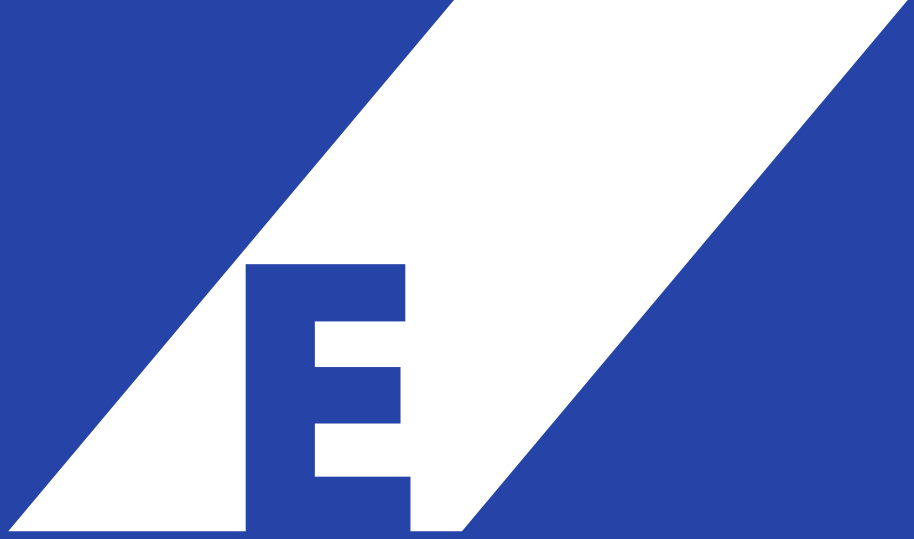
Places are defined by using international classification systems such as NUTS.

D.III-12 Place of initial pumping-in or compression station

Place at which the goods were first pumped in or first compressed into a pipeline.

D.III-13 Place of pumping-out or delivery station

Place at which the goods were pumped out or delivered from a pipeline.



Maritime transport



E. Maritime transport

E.I. Maritime infrastructure

E.I-01 Maritime coastal area

Contiguous stretch of coastline, together with islands offshore. It is defined either in terms of one or more ranges of ports along the coastline, or in terms of the latitude and longitude of one or more sets of extremities of the coastal area.

Riverbanks can be included.

E.I-02 Territorial sea

Belt of coastal waters extending at most 12 nmi (22.2 km; 13.8 mi) from the baseline (usually the mean low-water mark) of a coastal state.

E.I-03 International waters

All parts of the sea that are not included in the territorial sea or in the internal waters of a country and where no state may lawfully assert sovereignty over any part.

E.I-04 Exclusive economic zone

Sea zone over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind. It extends from the baseline out to 200 nmi from the coast.

The key difference between the territorial sea and the exclusive economic zone is that the former confers full sovereignty over the waters, whereas the latter confers only 'sovereign rights', which refer to the coastal state's rights below the surface of the sea.

E.I-05 Seaport

Area of land and water comprising infrastructure and equipment primarily designed to accommodate waterborne vessels, to enable their loading and unloading, to store goods, to manage their receipt and delivery and to facilitate the embarkation and disembarkation of passengers, crew and other persons. It also includes any additional infrastructure necessary for transport operators within the port area.

E.I-06 Sea statistical port

One or more ports, normally controlled by a single port authority or harbour master's office, able to record vessel, passenger and cargo movements.

E.I-07 Hub port

Port served by scheduled deep-sea shipping (see [E.V-07](#)) and by scheduled short-sea shipping (see [E.V-06](#)) where transshipment activity takes place.

E.I-08 UN/LOCODE

See [C.I-06](#).

E.I-09 Seaport accessibility

Seaport accessibility is defined by the following characteristics:

- a) the maximum length of a vessel that can be accommodated at the port in metres;
- b) the maximum draft of a vessel that can be accommodated at the port in metres;
- c) the width and depth of the port approach above low water in metres;
- d) the width and depth of the entrance channel above low water in metres;
- e) tidal window in hours for which vessels of maximum draft can enter and leave port;
- f) height restrictions above high water in metres (e.g. reflecting bridges);
- g) tidal range in metres.

E.I-10 Seaport landside facilities

- a) total port land area in square metres;
- b) storage areas for crude oil and petroleum products, in square metres;
- c) other bulk storage and stacking areas in square metres;
- d) container stacking areas in square metres and TEU;
- e) other areas in square metres;
- f) roads in metres;
- g) rail track length in metres;
- h) number of passenger terminals, number of vessels accommodated per terminal and terminal capacity.

The bulk storage and stacking area includes facilities for dry bulk, timber, paper, semi-bulk materials, etc. Rail track includes sidings.

E.I-11 Seaport storage areas

Storage areas in seaports, measured in square metres and categorised by type of facility. Height in metres for covered areas:

- a) open, not securely enclosed;
- b) open and securely enclosed;
- c) covered but not enclosed;
- d) covered and enclosed.

A securely enclosed area has fences, walls and/or surveillance systems.

E.I-12 Port quay length

See [C.I-07](#).

E.I-12.1 Port quay length by use

Quay length in metres allocated by use:

- multi-service quays;
- dedicated quays;
- ro-ro;
- containers;
- general cargo;
- dry bulk;
- liquid bulk;
- passenger;
- fishing;
- other.

E.I-12.2 Port quay length by depth of water

Quay length in metres available by depth of water for vessels moored alongside at low tide.

E.I-13 Ro-ro berth

See [C.I-08](#).

E.I-14 Port cranes by lifting capacity

See [C.I-09](#)

E.I-15 Port cranes by type

See [C.I-10](#).

E.I-16 Seaport repair facilities

Repair facilities at seaports. by number and maximum size of vessel accommodated:

- a) dry docks;
- b) floating docks;
- c) slipways;
- d) dedicated ship repair quays.

E.I-17 Seaport navigation aids and services

Availability of navigation aids and services (a) at ports and (b) in the approach channels:

- a) pilotage services;
- b) lights and lighthouses;
- c) radar and radio beacons;
- d) vessel traffic service within the port and coastal navigation services around the port;
- e) tugs for in-port manoeuvring – number;
- f) escort tugs for tankers – number;
- g) bunkering facilities;
- h) mooring services.

E.I-18 Seaport hinterland links and short-sea shipping

Availability of short-sea shipping and the distance from the nearest port entrance to hinterland links (in kilometres):

- a) short-sea shipping;
- b) passenger railhead;
- c) freight railhead;
- d) motorway access;
- e) inland waterway connections;
- f) airport.

E.II. Maritime transport equipment

E.II-01 Seagoing vessel

Floating marine structure with one or more surface displacement hulls.

Hydrofoils, air cushion vehicles (hovercraft), catamarans (high-speed craft), oil rigs, light vessels and seagoing barges are included. Vessels under repair are also included. Vessels that operate exclusively in inland waterways or in waters within or adjacent to sheltered waters or areas where port regulations apply are excluded from reporting on maritime transport equipment.

E.II-02 Ship

Self-propelled seagoing vessel.

Catamarans (high-speed craft) are included. Hydrofoils, air cushion vehicles (hovercraft), submersibles and submarines are excluded. A seagoing ship actually goes to sea, that is, outside the boundary within which inland waterway technical safety regulations apply and beyond which the ship's operators must comply with maritime regulations.

E.II-03 Seagoing barge

Unpowered seagoing freight vessel, including towed, pushed and pushed-towed barges.

E.II-04 Merchant ship

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

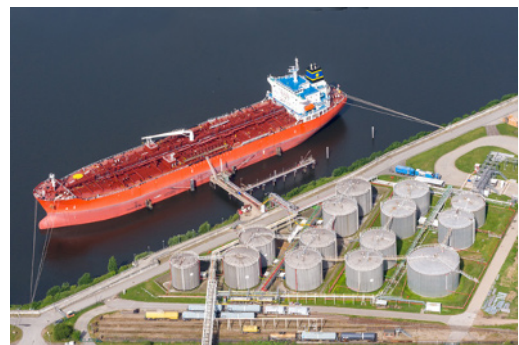
Merchant ships make port calls, with the exception of ferries, as these are scheduled.

Military ships and ships used by public administration and public services are excluded. Merchant ships are divided into cargo ships, passenger-carrying ships and ships for miscellaneous activities, specially fitted out for a specific duty. Ships for miscellaneous activities include fish-catching and processing ships, tugs, floating equipment and worksite craft, research/survey ships and ships used in offshore production and support.

E.II-05 Liquid bulk carrier

Specialised vessel designed to transport large volumes of liquid cargo. This category includes oil tankers, chemical tankers, LNG and LPG tankers, tanker barges, non-inflammable tankers and other tankers. Liquid bulk carriers should be further subdivided into:

- a) single-hulled liquid bulk carriers;
- b) double-hulled liquid bulk carriers.



E.II-06 Dry bulk carrier

Specialised vessel designed to transport unpackaged dry bulk cargo. This category includes bulk/oil combination carriers and bulk carriers.



E.II-07 Container ship

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

**E.II-08 Specialised carrier**

Vessel specifically designed for the carriage of particular types of cargo.

This category includes vehicle carriers, livestock carriers, irradiated fuel carriers, barge carriers and chemical carriers.

**E.II-09 General cargo non-specialised ship**

Ship designed to carry a wide range of goods.

This category includes reefers (refrigerated containers), ro-ro passenger ships, ro-ro container ships, other ro-ro cargo ships, combination carrier general cargo/passenger ships and combination carrier general cargo/container ships.

This category should be subdivided into:

- a) high-speed general cargo non-specialised ships meeting the requirements set out in the International Maritime Organization International Code of Safety for High-Speed Craft (IMO HSC Code), paragraph 1.4.30;
- b) other general cargo non-specialised ships.

E.II-10 Dry cargo barge

Barge designed to carry dry cargo such as coal, ores, grain, sand, or gravel, or similar materials. This category includes deck barges, hopper barges, lighter-boards-ship / Seabee barges, open dry cargo barges, covered dry cargo barges and other dry cargo barges.

E.II-11 Seagoing passenger ship

Seagoing ship specifically designed to carry more than 12 passengers, with or without overnight passenger cabins.

This category should be subdivided into:

- a) high-speed passenger ships meeting the requirements set out in the IMO HSC Code, paragraph 1.4.30;



- b) other passenger ships designed with one or more decks specifically for passenger transport; if there are no overnight passenger cabins, or no overnight passenger cabins where cabins are provided, they are sometimes referred to as 'ferries' (see [E.II-12](#)).

Ro-ro passenger ships are excluded (see [E.V-28](#)).



E.II-11.1 Cruise ship

Seagoing passenger ship on a voyage carrying passengers participating in a group programme and accommodated aboard, for the purpose of making scheduled temporary tourist visits at one or more different ports and that, during the voyage, does not normally:

- a) embark or disembark any other passengers; or
- b) load or discharge any cargo.

Ships operating normal maritime ferry services are excluded, even if some passengers treat the service as a cruise. In addition, cargo-carrying vessels able to carry up to 12 passengers and fitted with overnight passenger cabins are excluded. Ships intended solely for day excursions are also excluded.

E.II-12 Ferry

Seagoing ship operating a maritime ferry service (see [E.IV-05](#)).

To load passengers, railway wagons, or cars, the ferry usually has a special gate with strong and tightly closed wings at the stern or bow.

E.II-13 Fishing ship

Ship used for catching fish, whales, seals, walrus or other living resources of the sea. This category includes fish-catching and fish-processing ships.

E.II-14 Offshore activities ship

Ship used for offshore activities. This category includes drilling and exploration vessels and offshore support ships.

E.II-15 Tug

Ship designed for the towing and/or pushing of ships or other floating structures. Port tugs are included.

E.II-16 Miscellaneous ship

This category includes dredgers, research/survey ships and other vessels.

E.II-17 International Maritime Organization (IMO) ship identification number

Permanent number assigned to each ship for identification purposes. The number will remain unchanged if the ship is transferred to another flag or flags and is recorded in the ship's certificates. The IMO ship identification number is composed of the three letters 'IMO' followed by the seven-digit number assigned to all ships by IHS Maritime (formerly known as Lloyd's Register-Fairplay) when constructed. This is a unique seven-digit number that is assigned to propelled, seagoing merchant ships of 100 gross tonnage (GT) and above upon keel laying with the exception of the following:

- vessels solely engaged in fishing;
- ships without mechanical means of propulsion;
- pleasure yachts;
- ships engaged on special service (e.g. lightships, search and rescue vessels);
- hopper barges;
- hydrofoils and air cushion vehicles;
- floating docks and structures classified in a similar manner;
- ships of war and troopships;
- wooden ships.

E.II-18 Year of construction of seagoing vessel

Year in which the construction of a seagoing vessel was completed.

E.II-19 Year of major conversion of seagoing vessel

Year in which a seagoing vessel last underwent a major modification or refit affecting its structure.

E.II.20 Nationality of registration of seagoing vessel

The country and/or the territory authorising the registry of a seagoing vessel.

A seagoing vessel is subject to the maritime regulations regarding manning scales, safety standards and consular representation abroad for its country and/or territory of registration. Some countries, such as Denmark and Norway, provide 'international' or 'open' registers where the requirements are different from those in the 'national' register.

Also referred to as 'the flag state'.

E.II-21 Country of parent ownership of seagoing vessel

Nationality of the company holding a controlling interest in the direct owner.

E.II-22 Country of beneficial owner of seagoing vessel

Country of the 'group beneficial owner' used when the registered owner of a seagoing vessel is a bank or finance company. Refers to the organisation holding the controlling shipping interest in the vessel.

E.II-23 Seagoing vessel under national flag

Seagoing vessel that is registered in the reporting country.

E.II-24 Seagoing vessel under foreign flag

Seagoing vessel that is registered in a country other than the reporting country.

E.II-25 Merchant fleet

Number of merchant ships of gross tonnage over 100 registered at a given date in a country.

Changes in the fleet refer to changes in the total number or in the number within a ship type in the seagoing fleet of the declaring country, resulting from new construction; modification in type or capacity; transfers to or from a different flag state; scrapping; casualties; or transfers to or from the inland waterway register. Vessels under repair are included.

E.II-26 Deadweight tonnage of seagoing vessel

Difference in tonnes between the displacement of a seagoing vessel on the summer load line in water with a specific gravity of 1.025 and the total weight of the vessel. This refers to the displacement in tonnes of a vessel

without cargo, fuel, lubricating oil, ballast water, fresh water and drinking water in the tanks and usable supplies, as well as passengers, crew and their possessions.

E.II-27 Gross tonnage (GT) of seagoing vessel

Measure of the size of a seagoing vessel, determined in accordance with the provisions of the International Convention on Tonnage Measurement of Ships (1969). GT is determined by the total volume of all enclosed spaces of the ship in cubic metres multiplied by a logarithmic factor.

Prior to the adoption of the international convention, the Oslo Convention (1947) was in force, which produced substantially different figures for gross tonnage for some vessels. In some cases, the gross tonnage measure for a vessel is available only based on this earlier convention.

E.II-28 Automatic identification system (AIS)

A system to:

- automatically provide information, including the ship's identity, type, position, course, speed, navigational status and other safety-related information, to appropriately equipped shore stations, other ships and aircraft;
- automatically receive such information from similarly fitted ships;
- monitor and track ships;
- exchange data with shore-based facilities.

It is compulsory for international commercial ships with gross tonnage of 300 tonnes or more and all passenger ships regardless of size.

E.II-29 Aid to navigation (AtoN)

Device, system or service external to vessels, designed and operated to enhance safe and efficient navigation of individual vessels and/or vessel traffic.

E.III. Maritime enterprises, investment and maintenance

E.III-01 Transport for hire and reward

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

E.III-02 Transport on own account

Transport that is not for hire or reward.

Such transport is the movement by an enterprise of its own cargo without any associated financial transaction.

E.III-03 Sea transport enterprise

Private or public enterprise carrying out, at one or more locations, activities for the supply of sea transport services.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5, group 50.1 and under NACE Rev. 2.1, group 50.1 (Sea and coastal passenger water transport) or group 50.2 (Sea and coastal freight water transport).

Also referred to as 'shipping firm'.

Ship management enterprises that operate merchant ships on behalf of their owners or leaseholders are included. Ports and other units providing supporting and auxiliary transport services are excluded. These fall within the scope of E.III-06 (seaport enterprise) below.

E.III-04 Public sea transport enterprise

Sea transport enterprise that is principally owned (more than 50 % of the capital) by the state or public authorities and their enterprises.

E.III-05 Port authority

See [C.III-03](#).

E.III-06 Seaport enterprise

Enterprise providing seaport services at one or more locations.

Pleasure port enterprises are excluded.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5 and under NACE Rev. 2.1., class 52.22.

E.III-07 Public seaport enterprise

Seaport that is principally owned (more than 50 % of the capital) by the state or public authorities and their enterprises.

E.III-08 Investment expenditure on seaport infrastructure

Capital expenditure on new construction (including new maritime ports) or extension of existing maritime ports, including reconstruction, renewal (major substitution work on the existing infrastructure which does not change its overall performance) and upgrades (major modification work improving the original performance or capacity of the infrastructure).

Infrastructure includes land and port approach canals, port facilities, machinery and equipment, office and storage buildings, port repair facilities, navigation aids and services, hinterland links, along with the immovable fixtures, fittings and installations connected with them (signalisation, telecommunications, etc.).

E.III-09 Investment expenditure on seagoing vessels

Capital expenditure to purchase seagoing vessels or to upgrade existing ones.

E.III-10 Maintenance expenditure on seaport infrastructure

Non-capital expenditure to maintain the original condition and capacity of the existing port infrastructure and related equipment.

E.III-11 Maintenance expenditure on seagoing vessels

Non-capital expenditure to maintain seagoing vessels in working order without improving either their performance or their capacity.

E.III-12 Seaports capital stock

Estimated monetary value reflecting the current stock of physical maritime port infrastructure assets.

There are various methods, such as the replacement cost method or the perpetual inventory method, that provide the net value of the assets.

E.IV. Maritime traffic

E.IV-01 Sea traffic

Movement of a seagoing vessel at sea.

One-port traffic (movements of seagoing vessels to offshore installations or for dumping at sea, or traffic from the seabed to ports) is included. Fluvio-maritime movements (see [C.V-06](#)) of seagoing vessels are included. Movements in inland waterways between seaports (see [E.I-05](#)) and inland waterway ports (see [C.I-04](#)) by seagoing vessels should be included in inland waterway traffic if the movement occurs entirely within navigable inland waterways. Movements of seagoing vessels internally, between different basins or docks of the same port, are excluded.

E.IV-02 Scheduled sea traffic

Traffic provided by a seagoing vessel that is scheduled and operated according to a published timetable and is sufficiently regular or frequent as to constitute a recognisably systematic series.

E.IV-03 Unscheduled sea traffic

Sea traffic other than scheduled sea traffic.

E.IV-04 Island sea service

Sea service between:

- a port situated on the mainland and a port situated on one or more islands within the same country;
- ports situated on different islands of the same country.

E.IV-05 Maritime ferry service

Regular short-sea service between two ports, with or without intermediate calls. Such services operate:

- either according to a published timetable;
- or with crossings so regular or frequent that they constitute a recognisably systematic series.

E.IV-06 Sea trip

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

A trip may be divided into a number of stages. One-port trips from a seaport to an offshore installation or location at sea are included. In the maritime context, sea trips are also referred to as 'voyages' or 'sea voyages'.

E.IV-07 Sea stage

Movement of a vessel directly from one port to another without a port call at an intermediate port.

E.IV-08 Cargo sea trip

Sea trip involving movement of cargo between a place of loading or embarkation and a port of unloading or disembarkation.

A sea trip may include calls at multiple ports between the specified loading and unloading points.

E.IV-09 Port-to-port distance

Actual distance travelled.

An estimate of the actual distance may be provided.

E.IV-10 Vessel-kilometre

See [C.IV-09](#).

E.IV-11 Tonne-kilometre offered by a merchant ship

Tonne-kilometre offered when one tonne of the load capacity of a merchant ship travels over one kilometre. Tonne-kilometres offered equal the load capacity of the vessel multiplied by the port-to-port distance for all trips. Transport by barges is included.

E.IV-12 TEU-kilometre offered by sea

Movement of one TEU of total TEU capacity in a container ship over one kilometre. TEU-kilometres offered are equal to the TEU carrying capacity of the vessel multiplied by the port-to-port distance for all trips.

TEU-carrying capacity is the stated capacity recorded in the register of the classification society.

E.IV-13 Sea passenger-kilometre offered

Passenger-kilometre offered when one unit of passenger capacity is sailed one kilometre.

Passenger-kilometres offered are equal to the sum of the products obtained by multiplying the authorised passenger capacity of the vessel and the port-to-port distance for all journeys.

Passenger-carrying capacity is the stated capacity recorded in the register of the classification society.

E.IV-14 Port call by a merchant ship

A merchant ship makes a port call when it anchors or berths to load and/or unload cargo, to embark and/or disembark passengers or to facilitate excursions by passengers.

Anchorage without any cargo or passenger movements and traversing the port are excluded.

E.IV-15 Bunker call

A cargo or passenger ship makes a bunker call when it anchors or berths in a port to take on bunker oil or supplies.

E.IV-16 Arrival of merchant ship

Arrival of a merchant ship making a port call.

E.IV-17 Departure of merchant ship

Departure of a merchant ship after making a port call.

E.IV-18 Merchant ship laid up

Condition in which a merchant ship is moored in port due to absence of employment or commercial activity.

E.IV-19 Port state control

Inspection in port by the state in which the port is situated of merchant ships to monitor their seaworthiness.

E.IV-20 Detention under port state control

Detention in port under port state control of a merchant ship deemed unseaworthy.

E.IV-21 Maritime single window (MSW)

Centralised digital platform used by ports worldwide to collect, store and exchange information with ships when they call at ports. It streamlines port-clearance procedures, including arrival, stay and departure, by consolidating data from various stakeholders such as port authorities, customs and immigration services.

E.V. Maritime transport measurement

E.V-01 Sea transport

Movement of goods and/or passengers using merchant ships on journeys 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 seabed and unloaded in ports) is included. While bunkers and stores supplied to vessels in port are excluded, bunker oil shipped to vessels offshore is included.

The fluvio-maritime transport of goods by merchant ships is included. The transport of goods between seaports (see [E.I-05](#)) and inland waterway ports (see [C.I-04](#)) by seagoing vessels should be included in inland waterway transport if the transport occurs entirely within navigable inland waterways. Movements of goods carried internally between different basins or docks of the same port are excluded.

Maritime transport statistics are reported based on the 'territoriality principle', which states that reporting countries shall transmit data associated with maritime transport related to their national ports.

E.V-02 Fluvio-maritime transport

See [C.V-06](#).

E.V-03 Commercial sea transport

Sea transport undertaken for commercial purposes either for payment (i.e. hire and reward) or on the enterprise's own account as part of a wider economic activity.

E.V-04 National sea transport

Sea transport between two ports of a national territory or one-port sea transport within a national territory.

In the maritime context, national sea transport is also known as maritime cabotage. National sea transport may be performed by a merchant ship registered in the declaring country or in another country.

E.V-05 International sea transport

Sea transport other than national sea transport.

International one-port transport is included.

E.V-06 Short-sea shipping

Movement of cargo by sea between ports situated within a relatively narrow geographical area.

Included in such movements are ferry and feeder traffic. For Europe, short-sea shipping consists of the movement of cargo by sea between ports situated in Europe as well as between ports in Europe and ports situated in non-European countries having a coastline on the enclosed seas bordering Europe.

E.V-07 Deep-sea shipping

Transport of cargo by sea other than short-sea shipping, involving intercontinental routes and/or crossing oceans.

E.V-08 Tonne-kilometre by sea

Unit of measurement representing movement of one tonne of cargo in a merchant ship over one kilometre.

Tonne-kilometres performed are calculated as the sum over all trips of the product of the total number of tonnes of freight load carried and the port-to-port distance for each trip performed.

E.V-09 TEU-kilometre by sea

Unit of measurement representing movement of one TEU over one kilometre.

TEU-kilometres performed are calculated as the sum over all trips of the product of the total number of TEUs carried and the port-to-port distance for each trip.

E.V-10 Sea passenger

Person who makes a sea trip on a merchant ship.

Crew members and shipboard personnel assigned to merchant ships are not regarded as passengers. Non-fare-paying crew members who are travelling but not assigned to the ship, along with infants in arms, are excluded.

E.V-11 Cruise passenger

Sea passenger making a sea journey on a cruise ship.

Passengers on day excursions are excluded.

E.V-12 Sea passenger trip

Movement of a passenger from one port to another.

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

E.V-13 Sea passenger journey

Movement of a passenger from the port at which the journey begins to the port at which it ends, with stopping at least in one additional port in between. For some passengers, notably cruise passengers, the journey may begin and end at the same port.

E.V-14 Sea passenger-kilometre

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

Passenger-kilometres are calculated as the sum of the products obtained by multiplying the number of sea passengers carried on each journey performed by the respective port-to-port distance.

E.V-15 Sea passengers on board

Number of sea passengers on board a merchant ship on arrival at or departure from a port.

E.V-16 Sea passenger embarked

Passenger who boards a merchant ship to undertake a sea passenger trip.

A transfer from one merchant ship to another is regarded as embarkation after disembarkation. Cruise passengers on a cruise passenger excursion are excluded.

E.V-17 Sea passenger disembarked

Passenger disembarking from a merchant ship at the end of a sea passenger trip.

A transfer from one merchant ship to another is regarded as disembarkation before re-embarkation. Cruise passengers on a cruise passenger excursion are excluded.

E.V-18 Cruise passenger excursion

Short visit by a cruise passenger for tourism purposes while retaining a cabin on board.

E.V-19 Port of embarkation of sea passengers

Port in which a passenger starts a trip.

A transfer from one merchant ship to another is regarded as embarkation after disembarkation. Cruise passengers on a cruise passenger excursion are excluded.

E.V-20 Port of disembarkation of sea passengers

Port in which a passenger ends a trip.

A transfer from one merchant ship to another is regarded as disembarkation before re-embarkation. Cruise passengers on cruise passenger excursion are excluded.

E.V-21 Goods carried by sea

Goods conveyed by merchant ships.

This includes all packaging and equipment such as containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)), pallets (see [G.II-11](#)) or road goods vehicles. Mail is included; goods carried on or in wagons, lorries, trailers, semi-trailers or barges are also included. Conversely, the following items are excluded: road passenger vehicles with drivers; returning empty commercial vehicles and trailers; bunkers and stores of vessels; fish carried in fishing vessels and fish-processing ships; and goods carried internally between different basins or docks of the same port.

E.V-22 Gross-gross weight of goods carried by sea

Total weight of the goods carried by sea, all packaging and the tare weight of the transport unit (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), along with road goods vehicles, wagons or barges carried on the vessel).

E.V-23 Gross weight of goods carried by sea

Total weight of goods carried by sea, including packaging but excluding the tare weight of transport units (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)) along with road goods vehicles, wagons or barges carried on the vessel).

E.V-24 Tare weight of goods carried by sea

Weight of a transport unit (e.g. containers (see [G.II-02](#)), swap bodies (see [G.II-08](#)) and pallets (see [G.II-11](#)), along with road goods vehicles, wagons or barges carried on the vessel) before any cargo is loaded.

E.V-25 Types of cargo carried by sea

Freight cargo can be classified in terms of both the design of the vessel itself and the handling equipment required at ports and on the vessel.

The principal categories are:

- liquid bulk;
- dry bulk;
- containers;
- ro-ro (self-propelled);
- ro-ro (non-self-propelled);
- other general cargo.

E.V-26 Lift-on/lift-off (lo-lo)

See [G.I-072](#).



E.V-27 Container cargo

Container with or without freight that is lifted on or off the vessels that carry them by sea.

E.V-28 Roll-on/roll-off (ro-ro)

See [G.I-071](#).

E.V-29 Ro-ro cargo

See [C.V-32](#).

E.V-30 Ro-ro unit

See [C.V-33](#).

E.V-31 Dangerous goods carried by sea

Goods classified as dangerous goods carried by sea are those defined by the UN Recommendations on the Transport of Dangerous Goods:

- class 1: explosives;
- class 2: gases;
- class 3: flammable liquids;
- class 4: flammable solids; substances liable to spontaneous combustion; substances that, on contact with water, emit flammable gases;
- class 5: oxidising substances and organic peroxides;
- class 6: toxic and infectious substances;
- class 7: radioactive material;
- class 8: corrosive substances;
- class 9: miscellaneous dangerous substances and articles, including environmentally hazardous substances.

Their transport is regulated by Chapter VII of the International Convention for the Safety of Life at Sea (1974), as amended and as detailed in the International Maritime Dangerous Goods Code.

E.V-32 Ship-to-ship transhipment

Unloading of cargo from one merchant vessel and its loading into another to complete a journey, even where the cargo may have dwell time ashore before its onward journey.

Transhipment to other modes is excluded. Included are transhipments between deep-sea vessels and between deep-sea container vessels and a smaller feeder vessel.

E.V-33 Feeder transport

Short-sea container transport between a large hub port and another port with the objective of consolidating or redistributing freight to or from a deep-sea service in the hub port.

E.V-34 Goods loaded for sea transport

Goods placed on a merchant ship for transport by sea.

Transhipment from one merchant ship 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).

E.V-35 Goods unloaded after sea transport

Goods taken off a merchant ship.

Transhipment from one merchant ship 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).

E.V-36 Port of loading of goods carried by sea

Port at which a consignment of goods is loaded onto the ship from which it is unloaded at the reporting port.

Transhipments from one merchant ship to another are regarded as loading after unloading.

E.V-37 Port of unloading of goods carried by sea

Port at which a consignment of goods, loaded onto a ship at the reporting port, is to be unloaded from the same ship.

Transhipments from one merchant ship to another are regarded as unloading before reloading.

E.VI. Marine accidents

E.VI-01 Marine accident

Unintended event involving fatality, injury, ship loss or damage, other property loss or damage or environmental damage, caused by, or in connection with, the operation of a seagoing vessel resulting in:

- the death of, or serious injury to, a person;
- the loss of a person from a seagoing vessel;
- the loss, presumed loss or abandonment of a seagoing vessel;
- material damage to a seagoing vessel;
- the stranding or disabling of a seagoing vessel, or the involvement of a seagoing vessel in a collision;
- material damage to the marine infrastructure external to a vessel, which could seriously endanger the safety of the vessel or another vessel, or an individual;

– severe damage to the environment, or the potential for severe damage to the environment, caused by damage to a marine vessel.

Any accident during the normal operation of the vessel, including when it is in port or at anchor, is covered.

Terrorist acts, other criminal acts and acts of war are excluded. By definition, suicides are excluded because they are deliberate acts. Illnesses not related to the operation of the ship are excluded.

In the maritime sector, the events listed above are also known as ‘marine casualties’. In this context, ‘casualty’ refers to vessel and infrastructure damage, as well as personal injury or death.

E.VI-02 Injury marine accident

Marine accident involving at least one vessel operating at sea and resulting in at least one injured or killed person.

E.VI-03 Fatal marine accident

Marine injury accident resulting in at least one person killed.

E.VI-04 Non-fatal marine accident

Marine injury accident other than a fatal marine accident.

E.VI-05 Person killed in a marine accident

Person who is killed immediately or dies within 30 days as a result of a marine injury accident.

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

E.VI-06 Person lost at sea

Person missing at sea, presumed to have gone overboard.

E.VI-07 Person injured in marine accident

Person who, as a result of a marine injury accident, was not killed but did sustain an injury.

E.VI-08 Serious injury in marine accident

Injury sustained by a person in a marine accident that results in incapacitation for more than 72 hours, commencing within seven days from the date of injury.

E.VI-09 Person seriously injured in marine accident

Person who, as a result of a marine injury accident, was seriously injured.

E.VI-10 Person slightly injured in marine accident

Person who, as a result of a marine injury accident, was not seriously injured.

E.VI-11 Very serious marine casualty

Casualty to a seagoing vessel that involves the total loss of the seagoing vessel, loss of life or severe damage to the environment.

E.VI-12 Serious marine casualty

Casualty that does not qualify as a very serious casualty and that involves a fire, explosion, grounding, contact, heavy weather damage, ice damage, hull cracking or suspected hull defect, etc., resulting in:

- structural damage rendering the seagoing vessel not navigable, such as penetration of the hull underwater, immobilisation of the main engines, extensive accommodation damage, etc.; or
- pollution (regardless of quantity); and/or
- a breakdown necessitating towage or shore assistance.

E.VI-13 Marine incident

Event, or sequence of events, other than a marine casualty, that has occurred directly in connection with the operations of a seagoing vessel that endangers, or, if not corrected, would endanger the safety of the seagoing vessel, its occupants or any other person or the environment.

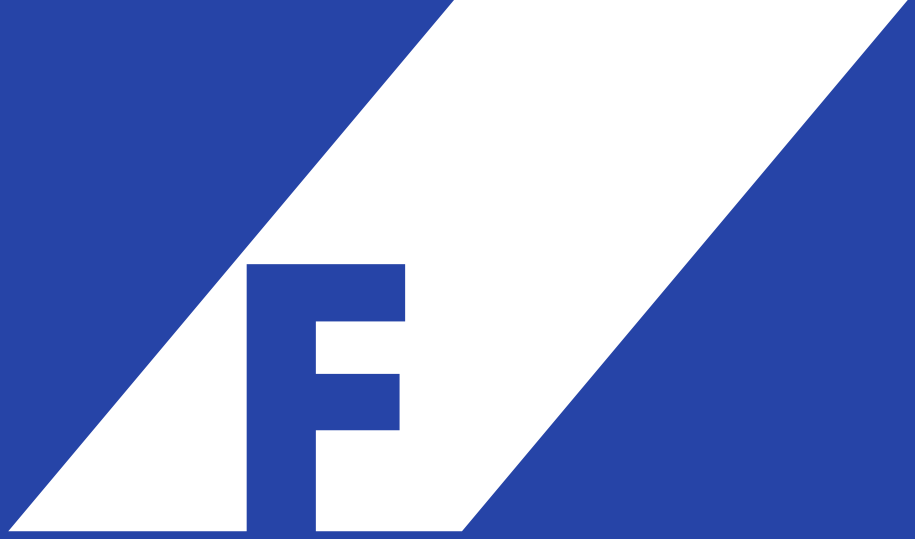
E.VI-14 Causes of marine accident

Actions, omissions, events, existing or pre-existing conditions or a combination thereof that led to a marine casualty or incident.

E.VI-15 Category of person in marine casualty or incident statistics

The category of person in marine casualty or incident statistics includes:

- passenger;
- crew member;
- other persons who are neither passengers nor crew members.



Air transport



F. Air transport

F.I. Air infrastructure

F.I-01 Airport

Defined area of land or water (including any buildings, installations or equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft and open for commercial air transport operations.

Most airports have a unique four-letter International Civil Aviation Organization (ICAO) code as listed in the ICAO Document 7910. Most, but not all, also have codes allocated by the International Air Transport Association (IATA).

F.I-01.1 International airport

Airport designated by the competent authorities of the territory in which it is situated as an airport of entry and departure for international air traffic, where the formalities such as customs, immigration, public health, agricultural quarantine and similar procedures are carried out.

F.I-01.2 Domestic airport

Airport not designated to handle international traffic.

F.I-02 Airport terminal

Self-contained facility for handling passengers and/or freight.

F.I-02.1 Passenger terminal

Airport terminal with facilities for the handling of passengers, including passenger check-in, baggage handling, security, immigration, passenger boarding and disembarkation.

F.I-02.2 Freight terminal

Airport terminal designed solely to handle freight shipments, including freight acceptance and release, secure storage, security and documentation.



F.I-03 Airport runway

Defined rectangular area at an airport designed for the landing and take-off of aircraft with the following characteristics:

- take-off run available: the length of runway declared available and suitable for the ground run of an aircraft taking off;
- landing distance available: the length of runway declared available and suitable for the ground run of an aircraft landing.

F.I-04 Airport taxiway

Defined path at an airport established for the taxiing of aircraft and intended to provide a link between one part of the airport and another.

**F.I-05 Types of check-in facilities**

There are two types of check-in facilities:

- conventional check-in facility, where airline staff handle ticket processing, luggage labelling, fast bag drops and the direct issuance of boarding cards;
- self-service check-in kiosks, providing check-in facilities and offering automated ticket processing, the issuance of boarding cards and, in some cases, luggage label printing.

F.I-06 Passenger gate

Area of a passenger terminal where passengers gather prior to boarding their aircraft.

F.I-06.1 Passenger gate with jet bridges

Gate with a connection to the aircraft to allow boarding without descending to ground level and using steps to board.

F.I-07 Airport car parking

Parking facilities provided at the airport.

For remote parking facilities, only those served by airport buses are considered to be airport car parking.

F.II. Air transport equipment**F.II-01 Aircraft**

Machine that can derive support in the atmosphere from the reactions of the air other than the reactions of air against the Earth's surface.

Dirigibles and surface effect vehicles such as hovercraft are excluded. ICAO provides aircraft type designators in ICAO Document 8643. In addition, ICAO and the Commercial Aviation Safety Team (CAST) have jointly developed a new taxonomy to correctly identify aircraft. IATA also assigns codes for aircraft types.

For statistical purposes, unmanned aircraft (see [F.II-06](#)) are excluded.

F.II-02 Aviation fleet

Aircraft registered at a given date in a country.

F.II-03 Operating aviation fleet

All aircraft in service for commercial purposes, including all aircraft that are temporarily unserviceable due to major accidents, conversions or government action such as grounding by government regulatory agencies.

Aircraft used solely for training and communications and private flying are not included in the operating fleet.

F.II-04 Types of aircraft by configuration

- a) **Passenger aircraft.** An aircraft configured for the transport of passengers and their baggage. Any freight, including mail, is generally carried in cargo holds in the belly of the aircraft.
- b) **Cargo aircraft.** An aircraft configured solely for the carriage of freight and/or mail.

Persons accompanying certain kinds of cargo, such as livestock, may also be carried.

A passenger aircraft with enhanced capabilities for the carriage of freight on the passenger deck is considered a cargo aircraft.

- c) **Quick change aircraft.** An aircraft that has a cabin capable of being converted from passenger to freight in a very short space of time. Carriers might use a quick change aircraft to enable passenger flights during a period of the day and then perform cargo flights during less typical passenger flying hours.
- d) **Business – air taxi / air charter.** An aircraft fitted with passenger interior, primarily for air taxi / air charter operations.
- e) **Business – private company use aircraft.** An aircraft used for private and corporate transport.
- f) **Special purpose and other aircraft.** An aircraft not listed above used for commercial and non-commercial air transport, along with some special purpose aircraft (medevac / air ambulance / emergency medical services / airborne hospital; crop dusting / agricultural spraying / seeding; firefighting (utility role); water-bomber / chemical spray, etc.).

F.II-05 Types of aircraft by noise characteristics

- a) **Non-noise certificated aircraft.** Aircraft not certificated to meet international noise requirements.
- b) **Chapter 2 aircraft.** Aircraft meeting the [ICAO Chicago Convention, Annex 16, Volume I, Chapter 2](#) specifications.
- c) **Chapter 3 aircraft.** Aircraft meeting the [ICAO Chicago Convention, Annex 16, Volume I, Chapter 3](#) specifications.
- d) **Chapter 4 aircraft.** Aircraft meeting the [ICAO Chicago Convention, Annex 16, Volume I, Chapter 4](#) specifications.

F.II-06 Unmanned aircraft (UA)

Aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board.

Also referred to as 'drone' or 'unmanned aerial vehicle' (UAV).

F.II-07 Aircraft age

Number of years since the first registration of the aircraft.

F.II-08 Payload capacity

Total payload capacity available (in metric tonnes), above and below deck, for the carriage of revenue load (passengers, baggage, freight and mail), taking into account any payload and operational restrictions on the supply of capacity.

F.II-09 Maximum certificated take-off mass (MCTOM)

Maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual or other official documents.

A regional aircraft is defined by an MCTOM greater than 5.7 tonnes and less than or equal to 60 tonnes; a narrowbody aircraft by an MCTOM greater than 60 tonnes and less than or equal to 150 tonnes; and a widebody aircraft by an MCTOM greater than 150 tonnes.

Also referred to as 'maximum take-off weight'.

F.II-10 Sustainable aviation fuel qualifying aircraft

Aircraft using 5 % sustainable aviation fuel (SAF) in 2022, increasing by 2.0 % annually thereafter.

SAFs are aviation fuels that are either: (a) synthetic aviation fuels; (b) aviation biofuels; or (c) recycled carbon aviation fuels; and (d) fully fungible with conventional kerosene, meaning they can be 'dropped into' conventional fuelling infrastructure and aircraft jet engines without any modification. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) defines the requirements for SAF at the global level.

F.III. Air enterprises, investment and maintenance

F.III-01 Airline

Aviation enterprise operating aircraft for commercial purposes that (i) performs scheduled or non-scheduled air transport services, or both, which are available to the public for carriage of passengers, mail and/or cargo; and (ii) is certified for such purposes by the civil aviation authority of the state in which it is established.

Also referred to as 'commercial air transport operator'.

ICAO provides a three-letter air transport operator code as listed in ICAO Document 8585 that is required for all airlines operating international routes. A two-character airline designator is assigned by IATA in accordance with the provisions of IATA Resolution 762. Two- or three-character airline designators are used for reservations, schedules, timetables, telecommunications, ticketing, cargo documentation, legal purposes, tariffs and/or other commercial/traffic purposes.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5 and under NACE Rev. 2.1, division 51.

F.III-02 Airport operator

Enterprise operating a commercial airport.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5 and under NACE Rev. 2.1, class 52.23.

F.III-03 Air traffic control provider

Enterprise providing air traffic control services.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5 and under NACE Rev. 2.1, class 52.23.

F.III-04 Airport services provider

Enterprise providing airport services such as aircraft ground handling, fuelling, maintenance and security, passenger services such as check-in and baggage handling, cargo handling and other services.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5, class 52.23 (Service activities incidental to air transportation) and class 52.24 (Cargo handling) and under NACE Rev. 2.1, class 52.23 (Service activities incidental to air transportation) and class 52.24 (Cargo handling).

F.III-05 Lessor of an aircraft

Owner of an aircraft who grants its conveyance to another party (the lessee) for a specific period of time, for monetary or other consideration, usually in the form of rent.

If the abovementioned services are considered the main activity of the enterprise, the enterprise is classified under ISIC Rev. 5, group 77.3 and NACE Rev. 2.1, class 77.35.

F.III-06 Investment expenditure on airport infrastructure

Capital expenditure on new construction (including new airports) or on the extension of existing airport infrastructure, including reconstruction, renewal (major substitution work on the existing infrastructure that does not change its overall performance) and upgrades (major modification work improving the original performance or capacity of the infrastructure).

Infrastructure includes land, airport facilities and associated equipment, office and storage buildings, air navigation systems, along with the immovable fixtures, fittings and installations connected with them (signalling, telecommunications, etc.).

F.III-07 Investment expenditure on aircraft

Capital expenditure to purchase aircraft or to upgrade existing ones.

F.III-08 Maintenance expenditure on airport infrastructure

Non-capital expenditure to maintain the original airport services and the capacity of the existing infrastructure and related equipment.

F.III-09 Maintenance expenditure on aircraft

Non-capital expenditure to maintain aircraft in working order without improving either their performance or their capacity.

F.III-10 Airport capital stock

Estimated monetary value reflecting the current stock of physical airport infrastructure assets.

There are various methods, such as the replacement cost method, or the perpetual inventory method, that provide the net value of the assets.

F.IV. Air traffic

F.IV-01 Aircraft movement

Aircraft take-off or landing at an airport.

For airport traffic purposes, one arrival and one departure are counted as two movements. Included are all commercial aircraft movements and non-commercial general aviation operations. Excluded are state flights, touch-and-goes, overshoots and unsuccessful approaches.

F.IV-01.1 Domestic aircraft movement

Aircraft take-off that ends, or an aircraft landing that starts, in the territory of the same state as the state where this movement started or ended.

F.IV-01.2 International aircraft movement

Aircraft take-off that ends, or an aircraft landing that starts, in the territory of a state other than the state where this movement started or ended.

F.IV-02 Commercial aircraft movement

Aircraft movement performed for remuneration or for hire.

This includes commercial air service movements and commercial general aviation operations.

F.IV-03 Aircraft departure

Take-off of an aircraft.

F.IV-04 Aircraft arrival

Landing of an aircraft.

F.IV-05 Revenue stop

Traffic stop for the purpose of taking on and/or taking off revenue load.

F.IV-06 Non-revenue stop

Stop other than a revenue stop.

Such stops include stops of positioning flights, state flights, training flights and technical stops.

F.IV-07 Diversion

Aircraft landing at an airport other than the one in the aircraft's flight plan, due to operational or technical difficulties either on the aircraft or at the destination airport.

Diversions may be caused by passenger misbehaviour, aircraft technical problems, bad weather conditions, accidents or other emergencies at the planned destination airport.

F.IV-08 Airport pair

Two airports between which travel is authorised by a passenger ticket or part of a ticket, or between which freight and mail shipments are made in accordance with a shipment document or part of it (air waybill or mail delivery bill).

Also referred to as 'city pair'.

F.IV-09 Airport-to-airport distance

Distance between two airports' great circles in kilometres.

The measurement is based on airport coordinates and a great circle calculation formula.

F.IV-10 Flight stage (FS)

Operation of an aircraft from take-off to its next landing.

Technical stops are not included.

F.IV-11 Domestic flight stage

Any flight stage flown between points within the domestic boundaries of a state.

Flight stages between a state and territories belonging to it, as well as any flight stages between such territories, should be classified as domestic.

F.IV-12 International flight stage

Flight stage where the take-off is in one state and the next landing is in another state.

F.IV-13 Direct flight

Operation of an aircraft on one or more flight stages, using a single flight number, assigned by the airline.

F.IV-14 Non-stop flight

Direct flight between two airports with no intermediate stops.

F.IV-15 Domestic flight

Direct flight having exclusively domestic flight stages.

F.IV-16 International flight

Direct flight having one or more international flight stages.

F.IV-17 Commercial air flight

Air transport flight performed for the transport of passengers and/or freight and mail, for remuneration or for hire.

F.IV-18 Commercial air service

Air transport flight or series of flights for the transport of passengers and/or freight and mail, for remuneration or for hire.

The air service may be either scheduled or non-scheduled.

F.IV-19 Scheduled air service

Commercial air service operated according to a published timetable, or with such a regular frequency that it constitutes an easily recognisable systematic series of flights.

Includes extra section flights occasioned by overflow traffic from scheduled flights.

F.IV-20 Non-scheduled air service

Commercial air service other than scheduled air service.

F.IV-20.1 Air taxi operation

On-demand and non-scheduled flight on short notice for the carriage by air of passengers, freight or mail, or any combination thereof, for remuneration, usually performed with smaller aircraft including helicopters (typically no more than 30 seats).

Also includes any positioning flight required for the provision of the service.

F.IV-21 Passenger air service

Scheduled or non-scheduled air service performed by aircraft carrying one or more revenue passengers and any flights listed in published timetables as open to passengers.

Includes flights carrying both revenue passengers and revenue freight and mail.

F.IV-22 All-freight and mail air service

Scheduled or non-scheduled air service performed by aircraft carrying revenue loads other than revenue passengers, i.e. freight and mail.

Excludes flights carrying one or more revenue passengers and flights listed in published timetables as open to passengers. Air freight and air mail combined are sometimes referred to as 'air cargo'.

F.IV-23 General aviation operations – commercial

All commercial civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire. The main categories of commercial general aviation are as follows:

- a) photographic;
- b) sightseeing trips;
- c) advertising;
- d) agricultural / crop spraying;
- e) medical / air ambulance trips;
- f) other commercial operations.

F.IV-24 General aviation operations – non-commercial

All non-commercial civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire. The main categories of non-commercial general aviation are as follows:

- a) state flight: any flight performed by aircraft for military, customs, police or other law enforcement services of a state, along with any flight declared as a 'state flight' by state authorities;
- b) instructional flying;
- c) private flying;
- d) business flying;
- e) parachute and glider launch flights;
- f) technical stops;
- g) test flight: a non-commercial flight carried out for the purpose of testing the aircraft prior to placing it in operational service;
- h) positioning flight: a non-commercial flight carried out to position an aircraft for a scheduled or non-scheduled flight or service;
- i) other non-commercial operations.

F.IV-25 Flight number

Primary published flight number assigned by the air transport operator to the flight. Passengers using a flight by an aircraft may be travelling under a range of different flight numbers. Only the active flight number for the flight is in question here.

F.IV-26 Code sharing

Use of one operator's flight number for services/flights provided by other operators.

For statistical purposes, the traffic is assigned to the airline, the flight number for which is used by air traffic control.

F.IV-27 Block-to-block time

Total time measured in hours and minutes from the aircraft's initial move from its departure point until its final stop at its arrival point.

F.IV-28 Aircraft hours

One hour of aircraft operation. Aircraft hours are measured on the basis of block-to-block time.

F.IV-29 Average daily aircraft utilisation – revenue hours

Total revenue hours (scheduled plus charter) flown by aircraft type (block-to-block) during a period divided by the related number of aircraft days available. 'Aircraft days available' shall be the sum of the number of days each aircraft is available for use during the period in question. The following days should be excluded from the days available:

- a) days between the date of purchase and the date actually placed in service;
- b) days after its last revenue flight prior to disposal;
- c) days out of service due to major accidents or conversion;
- d) days when an aircraft is in the possession of others or not available due to government action such as grounding by government regulatory agencies.

All other days must be considered as 'days available', including days required for maintenance or overhaul.

F.IV-30 Aircraft-kilometres performed

Sum of the products obtained by multiplying the number of flights performed on each flight stage by the airport-to-airport distance.

F.IV-31 Passenger seat available on an aircraft

Unit of measurement representing the total number of passenger seats available for sale on an aircraft operating a flight stage between a pair of airports.

Includes seats that are already sold on a flight stage, i.e. including those occupied by direct transit passengers.

Excludes seats not actually available for the carriage of passengers because of maximum gross weight limitations.

F.IV-32 Seat-kilometre available on a passenger aircraft

Unit of measurement representing the movement of seats available on a passenger aircraft when performing the services for which it is primarily intended over one kilometre.

The distance to be considered is that actually travelled airborne.

Movements on the ground are excluded.

F.IV-33 Tonne-kilometre available on an aircraft

Unit of measurement representing the movement of one tonne of payload (see [F.II-08](#)) available on an aircraft when performing services for which it is primarily intended over one kilometre.

The distance to be considered is that actually travelled.

F.IV-34 Automatic dependent surveillance – broadcast (ADS-B)

Surveillance technique that relies on aircraft or airport vehicles broadcasting their identity, position and other information derived from on-board systems (global navigation satellite system, etc.).

F.V. Air transport measurement

F.V-01 Air transport

Movement of goods and/or passengers by an aircraft.

Air transport statistics are reported based on the 'territoriality principle', which states that reporting countries shall transmit data relating to air transport related to their national airports.

F.V-02 Commercial air transport

Movement of goods and/or passengers by a commercial aircraft.

F.V-03 National air transport

Air transport on a domestic flight stage.

F.V-04 International air transport

Air transport on an international flight stage.

F.V-05 On-flight origin and destination (OFOD)

Traffic on a commercial air service identified by a unique flight number subdivided by airport pairs in accordance with a point of embarkation and a point of disembarkation on that flight.

For passengers, freight or mail, where the airport of embarkation is not known, the aircraft origin should be deemed to be the point of embarkation; similarly, if the airport of disembarkation is not known, the aircraft destination should be deemed to be the point of disembarkation.

F.V-06 Air passenger

Person, excluding on-duty members of the flight and cabin crews, who makes a trip by air.

Infants in arms are included.

F.V-07 Revenue air passenger

Commercial passenger for whose transport an air carrier receives commercial remuneration.

This definition includes, for example:

- a) *passengers travelling under publicly available promotional offers (e.g. 'two-for-one') or loyalty programmes (redemption of frequent flier points);*
- b) *passengers travelling as compensation for denied boarding;*
- c) *passengers travelling under corporate discounts;*
- d) *passengers travelling under preferential fares (government, seamen, military, youth, student, etc.).*

This definition excludes, for example:

- a) *persons travelling free of charge;*
- b) *persons travelling at a fare or discount available only to employees of air carriers or their agents or only for the business of the carriers;*
- c) *infants who do not occupy a seat.*

F.V-08 Non-revenue air passenger

Passengers other than a revenue passenger.

F.V-09 Air passenger on board

Passenger whose flight stage begins or terminates at the reporting airport, including a transfer passenger and a direct transit passenger.

F.V-10 Air passenger carried

Passenger whose flight begins or terminates at the reporting airport.

Excludes a direct transit passenger.

F.V-11 Terminating passenger

Passenger starting or ending their flight at the designated airport.

Excludes a direct transit passenger and a transfer passenger.

F.V-12 Direct transit passenger

Passenger who, after a short stop, continues the journey on the same aircraft on a flight having the same flight number as the flight on which they arrive. A passenger who changes aircraft because of technical problems but continues on a flight with the same flight number is also counted as a direct transit passenger.

On some flights with intermediate stops, the flight number changes at an airport to designate the change between an inbound and outbound flight. Where passengers for an intermediate destination continue their journey on the same aircraft in such circumstances, they should be counted as direct transit passengers.

F.V-13 Transfer passenger

Passenger arriving and departing on a different aircraft within 24 hours, or on the same aircraft bearing different flight numbers. Each passenger is counted twice: once on arrival and once on departure.

On some flights with intermediate stops, the flight number changes at an airport to designate the change between an inbound and outbound flight. Where passengers for an intermediate destination continue their journey on the same aircraft, they should not be counted as transfer or indirect transit passengers at the airport where the flight number is changed.

Also referred to as 'indirect transit passenger'.

F.V-14 Air passenger-kilometre (pkm)

Unit of measurement representing the transport of one air passenger over a distance of one kilometre.

Calculation of pkm equals the sum of the products obtained by multiplying the number of revenue passengers carried on each flight stage by the stage distance. The resultant figure is equal to the number of kilometres travelled by all passengers.

F.V-15 Passenger load factor

Air pkm (see [F.V-14](#)) expressed as a percentage of seat-kilometre available in a passenger aircraft (see [F.IV-32](#)).

F.V-16 Passenger-kilometres flown by flight stage

Sum of the products obtained by multiplying the number of passengers carried on each flight stage by the airport-to-airport distance.

F.V-17 Passenger-kilometres flown by on-flight origin/destination airports

Product of multiplying the number of passengers flown between two airports as initial origin and final destination by the airport-to-airport distance.

F.V-18 Baggage

Personal property of passengers and crew loaded or carried on board an aircraft by agreement with the operator.

F.V-19 Freight carried on an aircraft

Property carried on an aircraft other than mail, stores and baggage.

For statistical purposes, freight includes express freight and parcels and diplomatic bags but not passenger baggage. All trucking operations using an air waybill should be excluded.

F.V-20 Gross-gross weight of goods carried by air

Total weight of the goods carried, all packaging and the tare weight of the transport unit (e.g. air container).

F.V-21 Gross weight of goods carried by air

Total weight of the goods carried, including packaging but excluding the tare weight of transport units (e.g. air container).

F.V-22 Tare weight of goods carried by air

Weight of a transport unit (e.g. air container) before any cargo is loaded.

F.V-23 Freight loaded onto or unloaded from an aircraft

Any freight loaded onto or unloaded from an aircraft.

Direct transit freight is excluded.

F.V-24 Freight on board an aircraft

All freight on board an aircraft upon landing at an airport and at take-off from an airport.

Direct transit freight is included, and it is counted at both landing and take-off.

F.V-25 Freight tonne-kilometres performed by flight stage

Metric tonne of freight revenue load carried one kilometre. Tonne-kilometres performed are obtained by multiplying the total number of tonnes of freight revenue load carried on the flight stage by the airport-to-airport distance.

F.V-26 Freight tonne-kilometres performed by on-flight origin/destination airports

Metric tonne of freight revenue load carried one kilometre. Tonne-kilometres performed are obtained by multiplying the total number of tonnes of freight revenue load carried between two airports as the initial origin and the final destination by airport-to-airport distance.

F.V-27 Mail carried on an aircraft

Dispatches of correspondence and other objects carried on an aircraft, which have been dispatched by and intended for delivery to postal administrations.

Express freight and express parcel shipments are excluded.

F.V-28 Mail loaded onto and unloaded from an aircraft

Any mail loaded onto or unloaded from an aircraft.

Direct transit mail is excluded.

F.V-29 Mail on board an aircraft

All mail on board during each flight stage, including mail loaded and direct transit mail.

F.V-30 Diplomatic bag

Mail pouch used by governments to send official letters and dispatches.

F.V-31 Mail tonne-kilometres performed by flight stage

Metric tonne of freight revenue load carried one kilometre. Tonne-kilometres performed are obtained by multiplying the total number of tonnes of mail revenue load carried on the flight stage by the airport-to-airport distance.

F.V-32 Mail tonne-kilometres performed by on-flight origin/destination airports

Metric tonne of freight revenue load carried one kilometre. Tonne-kilometres performed are obtained by multiplying the total number of tonnes of mail revenue load carried between two airports as the initial origin and the final destination by the airport-to-airport distance.

F.V-33 Total freight/mail at reporting airport

Sum of the total freight and mail, both loaded and unloaded, at the reporting airport. All trucking operations using an air waybill should be excluded.

Freight and mail together are sometimes referred to as 'cargo'.

F.V-34 Categories of goods carried by air

Goods in transport may be classified according to type.

Examples of classification schemes are NST 2007, which replaces the CSTE nomenclature and the NST/R nomenclature.

F.V-35 Dangerous goods carried by air

Classes of dangerous goods carried by air are those defined by the UN Recommendations on the Transport of Dangerous Goods:

- class 1: explosives;
- class 2: gases;
- class 3: flammable liquids;
- class 4: flammable solids; substances liable to spontaneous combustion; substances that, on contact with water, emit flammable gases;
- class 5: oxidising substances and organic peroxides;
- class 6: toxic and infectious substances;
- class 7: radioactive material;
- class 8: corrosive substances;
- class 9: miscellaneous dangerous substances and articles, including environmentally hazardous substances.

The transport of dangerous goods is subject to the conditions set by IATA.

F.V-36 Payload carried on an aircraft

Revenue load of passengers, baggage, freight and mail carried on an aircraft as measured in metric tonnes.

F.V-37 Revenue tonne-kilometres performed by an aircraft

Metric tonne of revenue load carried one kilometre. Tonne-kilometres performed equal the sum of the products obtained by multiplying the total number of tonnes of each category of revenue load carried by the airport-to-airport distance.

F.V-38 Weight load factor of an aircraft

Total revenue tonne-kilometres performed by an aircraft (see [F.V-37](#)) expressed as a percentage of tonne-kilometres available on an aircraft (see [F.IV-33](#)).

F.VI. Air accidents

F.VI-01 Air accident

Occurrence associated with the operation of an aircraft that, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked or, in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down in which any of the following occurs.

- a) A person is fatally or seriously injured as a result of being in the aircraft, or direct contact with any part of the aircraft, including parts that have become detached from the aircraft, or direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to passengers and crew.
- b) The aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome).
- c) The aircraft is missing or is completely inaccessible.

An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

F.VI-02 Air incident

Occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operation.

F.VI-03 Serious air incident

Air incident involving circumstances indicating that an accident nearly occurred.

The difference between an accident and a serious incident lies only in the outcome. Examples of serious incidents can be found in the ICAO accident/incident reporting manual.

F.VI-04 Fatal air injury

Injury resulting in death within 30 days of the date of the air accident.

F.VI-05 Non-fatal air injury

Injury, other than a fatal injury, sustained by a person in an air accident.

F.VI-06 Serious air injury

Non-fatal injury, sustained by a person in an air accident and that:

- a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations that cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second- or third-degree burns, or any burns affecting more than 5 % of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation.

F.VI-07 Slight air injury

Non-fatal injury, other than a serious injury, sustained by a person in an air accident.

F.VI-08 State of occurrence of an air accident or incident

Country in the national territory of which an air accident or incident occurs.

F.VI-09 State of the air transport operator

Country in which the air transport operator's principal place of business is located or, if there is no such place of business, the air transport operator's country of permanent residence.

F.VI-10 State of registry of the aircraft

Country on whose register the aircraft is entered.

F.VI-11 Air accident on national territory

Air accident on the national territory of a country.

F.VI-12 Air accident on a nationally registered aircraft

Air accident involving an aircraft on the national aircraft register of a country.

G

Intermodal transport



G. Intermodal transport

G.I. Introduction to intermodal transport

G.I-01 Mode of freight transport

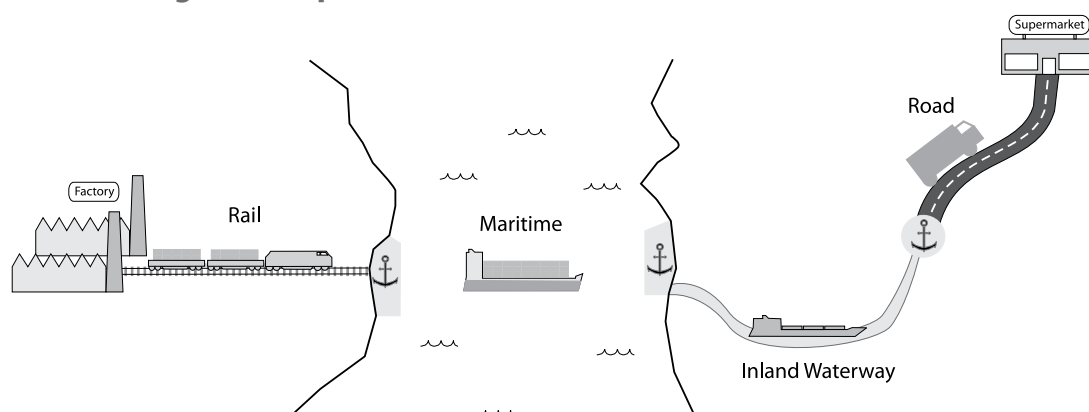
Means of transport used for the carriage of goods.

For statistical reporting, the following classification of transport modes should be used:

- a) rail;
- b) road;
- c) inland waterways;
- d) pipeline;
- e) maritime;
- f) air.

FIGURE 9

Mode of freight transport



G.I-02 Multimodal freight transport

Transport of goods using at least two modes of transport.

It may involve handling of the goods during transfers between modes.

Intermodal transport is a particular type of multimodal transport.

G.I-03 Intermodal transport

The movement of goods in one and the same ITU (see [G.II-01](#)), which uses several modes of transport successively without handling the goods themselves when changing modes.

By extension, the term **intermodality** has been used to describe a system of transport whereby two or more modes of transport are used to move the same unit in an integrated manner, without loading or unloading the goods, in a door-to-door transport chain.

G.I-04 Combined transport

Intermodal transport where the major part is by rail, inland waterways or sea and any initial and/or final legs carried out by road are:

- between the point where the goods are loaded and the nearest suitable rail loading station for the initial leg and between the nearest suitable rail unloading station and the point where the goods are unloaded for the final leg; or
- within a radius not exceeding 150 km as the crow flies from the inland waterway port or seaport of loading or unloading.

G.I-05 Piggyback transport

Transport of road vehicles by rail.



G.I-06 Rolling road

Transport of complete road vehicles, using ro-ro techniques, on trains normally composed entirely of low-floor wagons. Rolling road is a specific type of piggyback transport.

Transport of lorries via the Eurotunnel is an example of a rolling road.

Also referred to as 'rolling highway' or 'rolling motorway'.

G.I-07 Transshipment

Operation of moving ITUs (see [G.II-01](#)) from one mode of transport to another.

The most commonly used technologies are ro-ro and lo-lo.

G.I-07.1 Roll-on/roll-off (ro-ro)

Loading and unloading of a road vehicle, a wagon or an ITU (see [G.II-01](#)) onto or off a train or vessel on its own wheels or wheels attached to it for that purpose.



G.I-07.2 Lift-on/lift-off (lo-lo)

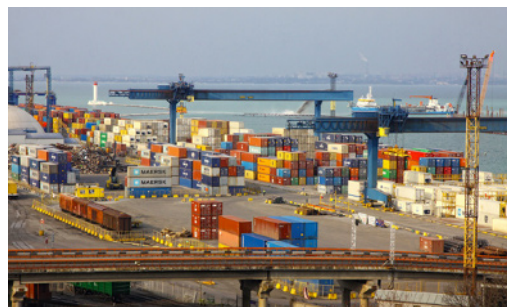
Loading and unloading of an ITU (see [G.II-01](#)) using lifting equipment.

G.I-08 Intermodal transport terminal

Facility equipped for the transshipment (see [G.I-07](#)) of ITUs (see [G.II-01](#)) serving at least two modes of transport.

Commonly includes storage of ITUs (see [G.II-01](#)).

Also referred to as 'intermodal freight terminals' or 'intermodal transshipment terminals'.



G.I-09 Logistics centre

Geographical grouping of companies and bodies that are involved in freight transport (e.g. freight forwarders, shippers, transport operators and customs) and have accompanying services (e.g. storage, maintenance and repair), including at least one terminal.

A single company may also have its own logistics centre.

Also referred to as 'freight village'.

G.II. Intermodal transport equipment

G.II-01 Intermodal transport unit (ITU)

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

Also referred to as 'intermodal loading unit' (ILU).

G.II-02 Container

Special box designed to carry freight and constituting a type of ITU. It is strengthened and stackable, allowing both horizontal and vertical transfers.

A more formal technical definition of a container is:

article of transport equipment that 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 modes 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 one cubic metre or more.

Swap bodies are excluded.

Although without internal volume, and therefore not satisfying criterion (f) above, flat containers (see [G.II-10](#)) used in maritime transport should be regarded as a special type of container and therefore are included here.

G.II-02.1 Loaded container

A container is considered loaded when any kind of goods is transported inside the container.

G.II-02.2 Empty container

A container is considered empty when the container does not have any goods inside.

G.II-03 Tare weight of container

The tare weight of a container is included in the total weight of the containerised goods transported, also called the gross-gross weight of goods. The gross weight of containerised goods transported can be calculated from the gross-gross weight by deducting the tare weight of the container and vice versa. If information about the tare weight is missing, then the tare weight may be estimated using the averages below.

The tare weight of a container may be estimated as:

- a) 20-foot ISO container: 2.3 tonnes;
- b) 40-foot ISO container: 3.7 tonnes;
- c) ISO container over 20 feet and under 40 feet in length: 3.0 tonnes;
- d) ISO container over 40 feet in length: 4.7 tonnes.

G.II-04 Types of containers

The main types of containers, as defined by the ISO Standards Handbook on Freight Containers, are:

1. general purpose containers;
2. specific purpose containers:
 - closed ventilated container;
 - open top container;
 - open-sided platform-based container;
 - open-sided platform-based container with complete superstructure;
 - open-sided platform-based container with incomplete superstructure and fixed ends;
 - open-sided platform-based container 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 (automobile, livestock, etc.);
 - air mode container.



G.II-05 Twenty-foot equivalent unit (TEU)

Statistical unit based on a 20-foot-long (6.10 m) ISO container to provide a standardised measure of containers of various capacities and for describing the capacity of container ships or terminals.

- One 20-foot ISO container (length of 20 ft and width of 8 ft) equals 1 TEU.
- One 40-foot ISO container (length of 40 ft and width of 8 ft) equals 2 TEU.
- One container with a length between 20 ft and 40 ft equals 1.50 TEU.
- One container with a length of more than 40 ft equals 2.25 TEU.

G.II-06 High-cube container

Container with a height of nine feet, six inches.

G.II-07 Super high-cube container

Container that exceeds the ISO dimensions.

Included are containers with lengths of 45 ft, 48 ft or 53 ft.

G.II-08 Swap body

Freight-carrying unit optimised to road vehicle dimensions and fitted with handling devices for transfer between modes, usually road/rail.

Such units were not originally designed to be stacked when full or top-lifted. Many units now can be, although not to the same extent as containers. The main feature distinguishing them from containers is that they are optimised to road vehicle dimensions. Such a unit would need UIC approval to be used on rail. Some swap bodies are equipped with folding legs on which the unit stands when not on the vehicle.



G.II-09 Unit load

Group of individual packages bonded, palletised or strapped together to form a single unit for more efficient handling by mechanical equipment.

G.II-10 Flat container

Loadable platform having no superstructure whatsoever 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.

Also referred to as ‘flat’.

G.II-11 Pallet

Raised platform, intended to facilitate the lifting and stacking of goods.

While pallets are usually made of wood, they can be made of other materials. They are of standard dimensions, which vary between regions. One common dimension in Europe and Asia is 1 000 mm x 1 200 mm (ISO) and 800 mm x 1 200 mm (CEN).

G.II-12 Wagon for intermodal transport

Wagon specially built or equipped for the transport of ITUs (see [G.II-01](#)).

Types of wagons are:

- pocket wagon: rail wagon with a recessed pocket to accept the axle/wheel assembly of a semi-trailer;
- basket wagon: rail wagon with a demountable subframe, fitted with devices for vertical handling to allow the loading and unloading of semi-trailers or road motor vehicles;
- spine wagon: rail wagon with a central chassis designed to carry a semi-trailer;
- low-floor wagon: rail wagon with a low loading platform built to carry, inter alia, ITUs;
- rolling-road wagon: rail wagon with low floor throughout which, when coupled together, form a rolling-road;
- double-stack wagon: rail wagon designed for the transport of containers stacked on top of each other;
- bimodal semi-trailer: a road semi-trailer that can be converted into a rail wagon by the addition of rail bogies.

Also referred to as 'intermodal car'.



G.II-13 Ro-ro unit

Wheeled piece of equipment for carrying goods, such as a goods road motor vehicle, trailer or semi-trailer, which can be driven or towed onto a vessel or train.

Trailers used in ports or on vessels are included in this definition.

The other main method to put a goods road motor vehicle, trailer or semi-trailer on a vessel or train is to use cranes.

G.II-14 Gantry crane

Overhead crane comprising a horizontal gantry mounted on legs, which are either fixed or run in fixed tracks or on rubber tyres, with relatively limited manoeuvrability. The load can be moved horizontally, vertically and sideways.

Such cranes normally straddle a road/rail and/or ship/shore interchange.



G.II-15 Straddle carrier

Rubber-tyred overhead lifting vehicle for moving or stacking containers on a level reinforced surface.



G.II-16 Reach stacker

Tractor vehicle with front equipment for lifting, stacking or moving ITUs.



G.II-17 Forklift truck

Vehicle equipped with power-driven horizontal forks, which allow it to lift, move or stack pallets, containers or swap bodies.



G.II-18 Spreader

Adjustable fitting on lifting equipment designed to connect with the upper corner fittings of an ITU.
Many spreaders additionally have grappler arms that engage the bottom side rails of an ITU.

G.III. Intermodal transport enterprises

G.III-01 Multimodal transport operator

Entity that concludes a multimodal transport contract and assumes full responsibility for the performance thereof as a carrier or a transport operator.

G.III-02 Intermodal transport operator

Entity that assumes full responsibility for the transport of intermodal loading units.

G.III-03 Freight forwarder

Intermediary that arranges for the carriage of goods and/or associated services on behalf of a shipper.

Also referred to as 'forwarding agent'.

G.III-04 Carrier

Entity responsible for the carriage of goods, either directly or using a third party.

Also referred to as 'transport operator'.

G.III-05 Shipper

Entity that puts goods in the care of others (freight forwarder and/or carrier) to be delivered to a consignee.

Also referred to as 'consignor' or 'sender'.

H

Energy consumption



H. Energy consumption

The following definitions refer to energy products, as defined in energy statistics, that are typically combusted for transport purposes. Statistics on fuel used for heating, lighting, etc., at transport facilities such as railway stations, bus stations, shipping piers and airports are reported under 'Commercial and public services' and are not included in the transport sector. There are also energy products used for non-energy purposes related to transport (e.g. road construction, lubrication).

There are important differences between the production of transport and energy statistics. When combining or comparing data from these two domains, it is important to exercise caution, particularly for water transport statistics (see [H.III-03](#)).

In the production of transport statistics, data for transport equipment and traffic are often categorised based on the type of motor energy used. See [B.II-44](#).

H.I. Energy units

H.I-01 Tonne of oil equivalent (TOE)

Normalised unit of energy based on the energy content of one metric tonne (1 000 kg) of crude oil. By convention, it is equivalent to 41.868 gigajoules and serves as a standardised measure for comparing the energy content of different sources.

Other relevant conversion factors are:

- 1 MTOE (million tonnes of oil equivalent) = 41 868 TJ (terajoules);
- 1 TWh (terawatt-hour) = 85.98 kTOE (thousand tonnes of oil equivalent);
- 1 TOE = 11.63 MWh (megawatt-hours).

H.I-02 Kilowatt-hour (kWh)

Composite unit of energy equivalent to one kilowatt (1 kW) of power sustained for one hour. One watt is equal to 1 J/s. One kilowatt-hour is 3.6 megajoules, which is the amount of energy converted if work is done at an average rate of 1 000 watts for one hour.

H.II. Energy sources

H.II-01 Liquefied petroleum gas (LPG)

Light paraffinic hydrocarbon derived from refinery processes, crude oil stabilisation and natural gas processing plants.

It consists mainly of propane and butane but may also contain smaller amounts of isobutane and alkenes (such as propylene and butylene). LPG is easily liquefied under pressure within normal external temperatures for transport and storage.

H.II-02 Motor gasoline

Mixture of light hydrocarbons distilling between 35 °C and 215 °C. It is used as a fuel for land-based spark-ignition engines.

Motor gasoline may include additives, oxygenates and octane enhancers, including lead compounds such as tetraethyllead and tetramethyllead. Includes motor gasoline blending components (excluding additives, oxygenates and biogasoline), such as alkylates, isomerate, reformat or cracked gasoline destined for use as finished motor gasoline.

Motor gasoline is a product aggregate equal to the sum of blended biogasoline (biogasoline in motor gasoline) and non-biogasoline.

Also referred to as 'petrol', particularly in transport statistics.

H.II-03 Aviation gasoline

Motor spirit prepared specially for aviation piston engines, with an octane number suited to the engine, a freezing point of – 60 °C and a distillation range usually within the limits of 30 °C and 180 °C.

Also referred to as 'avgas' or 'aviation spirit'.

H.II-04 Gasoline type jet fuel

All light hydrocarbon oils for use in aviation turbine power units, distilled at between 100 °C and 250 °C.

They are obtained by blending kerosenes and gasoline or naphthas in such a way that the aromatic content does not exceed 25 % in volume and the vapour pressure is between 13.7 kPa and 20.6 kPa.

H.II-05 Kerosene type jet fuel

Distillate used for aviation turbine power units. It has the same distillation characteristics at between 150 °C and 300 °C (generally not above 250 °C) and flash point as kerosene. In addition, it has specifications (such as freezing point) that are established by IATA. It includes kerosene blending components.

Kerosene type jet fuel is a product aggregate equal to the sum of blended bio jet kerosene (bio jet kerosene in kerosene type jet fuel) and non-bio jet kerosene.

H.II-06 Other kerosene

Refined petroleum distillate used in sectors other than aircraft transport. It typically distils between 150 °C and 300 °C.

H.II-07 Gas/diesel oil

Refined petroleum product designed to match the requirements of diesel engines, in road vehicles, rail and marine transport. It is the lightest of gas and fuel oils, which distils between 180 °C and 380 °C.

It is generally composed of about 75 % saturated hydrocarbons and 25 % aromatic hydrocarbons. The quality of diesel combustion is indicated by the cetane number.

H.II-08 Heavy fuel oil (residual)

Distillation residue from crude oil refining. It includes all residual fuel oils, including those obtained by blending.

Also referred to as HFO.

H.II-09 Biogas

Gas composed principally of methane and carbon dioxide produced by anaerobic digestion of biomass or by thermal processes from biomass, including biomass in waste.

Includes biogases from anaerobic fermentation (such as landfill gas and sewage sludge gas) and biogases from thermal processes.

In transport applications, it is mostly used in spark-ignited combustion engines.

H.II-09.1 Biomethane

Near-pure source of methane produced either by 'upgrading' biogas (see [H.II-09](#)) (a process that removes any carbon dioxide and other contaminants present in the biogas) or through the gasification of solid biomass followed by methanation.

H.II-10 Biogasoline

Liquid fuel of natural origin (e.g. derived from biomass or the biodegradable fraction of waste) suitable for blending with or replacing fossil-based motor gasoline.

Includes bioethanol, biomethanol, bioETBE and bioMTBE.

H.II-11 Biodiesel

Liquid fuel of natural origin (e.g. derived from biomass or the biodegradable fraction of waste) suitable for blending with or replacing fossil-based gas/diesel oil.

Includes biodiesel (as in methylester from bio-oil of diesel quality), biodimethylether, Fischer-Tropsch, cold-pressed bio-oil and other liquid biofuels adapted to compression engines in transport.

H.II-12 Bio jet kerosene

Liquid biofuel suitable to be blended with or to replace jet kerosene from fossil origin.

H.II-13 Other liquid biofuels

Liquid biofuels used directly as fuel not covered by the definitions of biogasoline, biodiesel or bio jet kerosene, including those whose consumption cannot be reported to a specific category due to missing information.

H.II-14 Electrical energy

All types of electricity generated in various power plants (e.g. nuclear, thermal, hydro, wind, photovoltaic or other plants) distributed to consumers through the grid or consumed locally.

It excludes electricity generated on board vehicles, such as from regenerative braking systems or from battery electric vehicles equipped with an auxiliary power unit (range extender).

H.II-15 Natural gas

Gas found in underground deposits, whether in liquefied or gaseous form, consisting mainly of methane. It includes 'non-associated' gas originating from fields producing only gaseous hydrocarbons and 'associated' gas produced alongside crude oil. Additionally, it covers methane recovered from coal mines (coal mine methane and coalbed methane).

Natural gas can be used in transport, either in compressed (CNG) or liquefied (LNG) form in spark-ignited internal combustion engines.

H.II-16 Hydrogen

Chemical element with high energy content that can be produced from various sources, such as hydrocarbons or water, through different methods (e.g. methane steam reforming from fossil sources or water electrolysis).

For transport purposes, it can be used to produce electricity through a fuel cell, or via direct combustion.

Various hydrogen carriers, or hydrogen-based fuels, are also used in transport, such as ammonia and methanol.

H.II-17 Ammonia

A compound of nitrogen and hydrogen (NH₃) that is an industrially produced input to much of the world's fertiliser manufacture, resulting in substantial carbon dioxide (CO₂) emissions from the use of fossil fuel inputs to generate the input hydrogen. With properties similar to LPG, ammonia can also be used directly as a fuel in direct combustion processes and in fuel cells, and can be 'cracked' to release its hydrogen content. As it can be made from low-emissions hydrogen, ammonia has the potential to be a low-emissions fuel if the production process (including nitrogen separation) is powered by low-emissions energy. Produced in such a way, ammonia is considered a low-emissions hydrogen-based liquid fuel.

H.III. Energy consumption by the transport sector

H.III-01 Energy consumption by rail transport

Energy quantities used for rail transport, including industrial railways and urban or suburban rail transport systems.

Includes trams, metros, subways, urban and suburban rail, high-speed trains and maglev systems.

It excludes energy input into electrical power stations operated by railway companies.

H.III-02 Energy consumption by road transport

Energy quantities used by road vehicles for the propulsion of such vehicles.

It includes:

- energy used by utility vehicles, private motor cars and omnibuses belonging to railway companies;
- energy used by agricultural vehicles and civil engineering vehicles operating on roads open to public traffic, provided they are subject to the standard taxation system;
- energy used by trolleybuses, trolley trucks and other road vehicles powered by overhead wires.

It excludes:

- energy used in stationary engines;
- energy used by agricultural tractors off roads open to public traffic;
- energy used by engines at construction sites;
- energy used for military road transport.

H.III-03 Energy consumption by domestic navigation

Energy quantities delivered to vessels transporting goods or passengers by domestic navigation.

Domestic navigation necessitates that the ports of departure and destination are within the same national territory, without intermediate stops in foreign ports.

This may include long-distance navigation across the ocean between two ports within the same country (e.g. San Francisco to Honolulu).

It excludes transit through a country, along with military forces and fishing vessels.

The concept of domestic navigation differs from that of (national) inland waterway transport (see [C.V-01](#) and [C.V-02](#)).

H.III-04 Energy consumption by pipeline transport

Energy quantities used to support and operate pipelines transporting gases, liquids, slurries and other commodities between points within the national territory.

Includes energy used for pump stations and for pipeline maintenance.

It excludes energy used for the pipeline distribution of natural or manufactured gas, hot water or steam from the distributor to final users (to be reported in the energy sector); energy used for the final distribution of water to households and industrial, commercial and other users (to be included in 'Commercial and public services'); and losses occurring during the transport between the distributor and final users (to be reported as distribution losses).

H.III-05 Energy consumption by international marine bunkers

Quantities of fuels delivered to ships of all flags that are engaged in international navigation.

International navigation is defined as that in which the ports of departure and arrival are in different national territories. International navigation may take place at sea, on inland lakes and waterways and in coastal waters.

It excludes consumption by ships engaged in domestic navigation, fishing vessels and military forces.

H.III-06 Energy consumption by air transport

Energy quantities used by international aviation bunkers and domestic aviation.

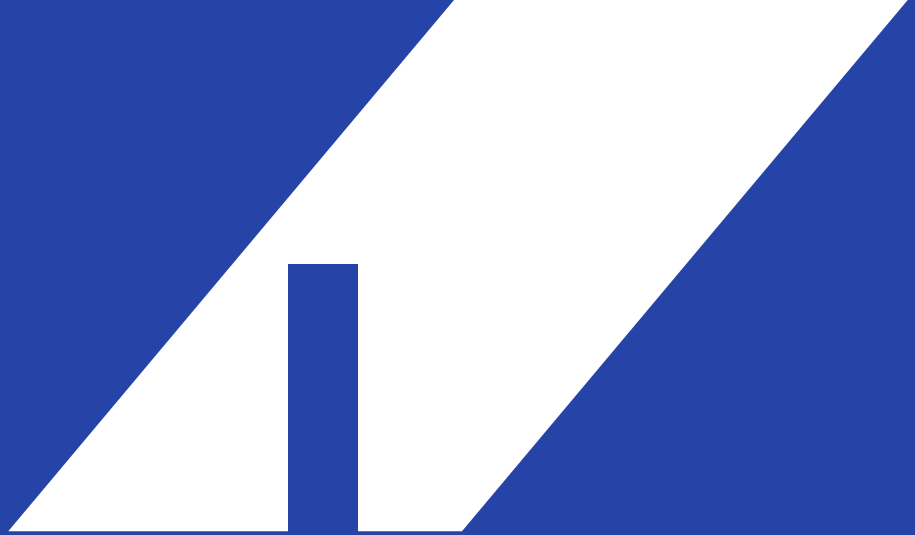
International aviation bunkers consumption refers to energy quantities delivered to civil aircraft of any nationality for consumption during international flights transporting goods or passengers. An international flight is defined as one where the airports of departure and arrival are in different national territories.

Domestic aviation consumption refers to energy quantities delivered to all civil aircraft undertaking domestic flights transporting passengers or goods, or for purposes such as crop spraying or the bench-testing of aero engines. A domestic flight is defined as one in which the airports of departure and landing are within the same national territory. Flights between distant islands that are part of the national territory, even if passing through the airspace of other countries, are considered domestic aviation.

It excludes energy quantities used for military aviation and energy quantities used by airport authorities for ground transport within airports.

H.III-07 Energy consumption by transport not elsewhere specified

Energy consumption by transport activities not listed in other categories.



Environmental impact of transport





I. Environmental impact of transport

I.1. Greenhouse gas emissions

I.1-01 Greenhouse gas (GHG)

Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere and clouds ⁽³⁾.

For transport-related emissions, the primary GHGs considered are:

- carbon dioxide (CO₂);
- methane (CH₄);
- nitrous oxide (N₂O).

I.1-02 Well-to-wheel (WTW) GHG emissions ⁽⁴⁾

Emissions representing the GHG impact from both vehicle use and vehicle energy provision. WTW emissions can be divided into well-to-tank emissions and tank-to-wheel emissions.

These exclude emissions from vehicle manufacture, non-exhaust emissions such as brake wear, tyre wear, road surface abrasion and emissions from the production and end-of-life treatment of vehicle components such as electric batteries, which are covered under broader life-cycle assessment (see [I.1-05](#)).

I.1-03 Well-to-tank (WTT) GHG emissions

Emissions generated from the production and transport of fuel (or other energy sources such as electricity) for use in transport vehicles.

I.1-04 Tank-to-wheel (TTW) GHG emissions ⁽⁵⁾

Vehicle-propulsion-related emissions from energy use.

These emissions exclude any non-exhaust emissions, such as those from brake wear, tyre wear or road surface abrasion.

I.1-05 Life-cycle assessment (LCA)

Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.

In the transport context, LCA includes the environmental impacts associated with vehicle life cycle (production, maintenance, use and end-of-life treatment), transport infrastructure (construction, renewal, maintenance and decommissioning) and energy use (both direct, e.g. fuel combustion, and indirect, e.g. electricity generation).

I.1-06 Emission factor

Coefficient that quantifies the emissions or removals of a gas per unit of activity.

⁽³⁾ <https://www.ipcc.ch/help/frequently-asked-questions/>

⁽⁴⁾ Proposal for a regulation of the European Parliament and of the Council on the accounting of greenhouse gas emissions of transport services, COM(2023) 441 final of 11 July 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023PC0441>.

⁽⁵⁾ See footnote 4.

Emission factors are typically expressed as emissions per unit of fuel consumed (e.g. kg CO₂ per litre of diesel) or per kilometre travelled.

Emission factors are often based on a sample of measurement data, averaged to develop a representative rate of emission for a given activity level under a given set of operating conditions.

I.I-07 Fuel combustion

Intentional oxidation of materials within an apparatus that is designed to provide heat or mechanical work to a process, or for use away from the apparatus.

In the transport context, this refers specifically to 'mobile combustion'.

I.I-07.1 Mobile combustion

Combustion of fuel in mobile sources, such as road vehicles, off-road transport equipment, aircraft, trains and vessels.

I.II. Air pollutant emissions

Air pollutant emissions refer to the discharge of pollutants into the atmosphere from stationary and mobile sources.

In the context of transport, mobile sources include road vehicles, rail locomotives, aircraft and vessels, which emit pollutants primarily through mobile combustion and non-exhaust processes, such as tyre, brake and road surface wear.

I.II-01 Air pollutant

Substance in air that could, at high enough concentrations, harm humans, animals, vegetation or material. The key air pollutants emitted by transport are outlined in [I.II-02](#).

I.II-02 Emissions of CO, NO_x, NMVOCs, PM₁₀, PM_{2.5} and SO_x

Carbon monoxide (CO), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), particulate matter (PM₁₀ and PM_{2.5}) and sulphur oxides (SO_x) can be grouped into the following categories:

- acidifying substances: NO_x, SO_x;
- particulates: PM₁₀ (particulate matter with aerodynamic diameter of 10 µm or less), PM_{2.5} (particulate matter with an aerodynamic diameter of 2.5 µm or less);
- ozone precursors: NO_x, NMVOCs, CO.

I.II-03 Transport emission standards

Maximum amount of discharge that is legally permitted from a mobile source, such as road vehicles, rail locomotives, aircraft and vessels.

I.II-03.1 Euro emissions standards

Set of emission limits for new vehicles established through European Union directives, which define the maximum allowable exhaust emissions of CO, NO_x, PM and hydrocarbons.

Each level (Euro 1, Euro 2, etc.) corresponds to a specific EU directive and introduces progressively stricter limits. The standards apply to various categories of vehicles, including passenger cars, vans and heavy-duty vehicles.



I.II-04 Low-emission zone (LEZ)

Contiguous zone that restricts the use of polluting vehicles.

An LEZ can be priced (where vehicles pay to enter based on their emissions level) or not priced (where vehicles below a minimum emission standard are banned and non-compliant vehicles that enter may incur a fine).

I.III. Noise

I.III-01.1 Environmental noise

Unwanted or harmful outdoor sound created by human activities, including noise emitted by means of transport, road traffic, rail traffic, air traffic and from sites of industrial activity.

I.III-01.2 Transport noise

Unwanted or excessive sound produced by transport systems.

I.III-02 Decibel (dB)

Unit of sound level measurement defined in ISO Standard [80000-3:2006](#).

I.III-03 A-weighted decibel (dBA)

Unit of sound level measurement that incorporates a frequency weighting approximating the characteristics of human hearing.

I.III-04 Leq – equivalent continuous sound level

Method of describing sound levels that vary over time, resulting in a single decibel value that considers the total sound energy over the period of time of interest.

I.III-05 Noise level

Physical scale for the description of environmental noise, which has a relationship with a harmful effect, expressed in decibels.

I.III-05.1 Standard noise level indicators

- Lden (day-evening-night noise indicator) for overall annoyance;
- Lday (day-noise indicator) for annoyance during the day period;
- Levening (evening-noise indicator) for annoyance during the evening period; and
- Lnight (night-time noise indicator) for sleep disturbance.

I.III-06 Noise contours

Series of lines superimposed on a map representing equal levels of noise exposure. They show areas in which noise levels exceed a given decibel threshold.

I.III-06.1 Noise contours – airports

As a result of flight traffic, noise impact is either observed or calculated for every point around the airport. Due to a difference in distance from the noise source, these values may vary sharply from one point to another. Noise contours are isolines or lines of equal noise impact, using leq or equivalent measures. These lines connect points where equal noise impact is observed or calculated.

I.IV. Landscape fragmentation

I.IV-01 Transport-related soil pollution

Contamination of soil caused by emissions and waste from transport activities. Key sources include:

- abrasion of transport components such as brakes, tyres, rail tracks and overhead lines, which release heavy metals;
- fuel combustion, which emits persistent organic pollutants (POPs) and other toxic compounds;
- oil spills or leaks from fuel handling, distribution or accidents;
- deposition of solid or liquid waste, especially along roadways and railways or in port areas.

These pollutants may accumulate in soil and may cause long-term degradation of ecosystems.

Soil pollution from transport is most relevant in road and rail modes and is occasionally quantified using restoration cost or shadow price methods.

I.IV-02 Transport-related water pollution

Degradation of water quality due to routine or accidental emissions related to transport activities.

Primary sources include:

- run-off containing heavy metals and organic pollutants from vehicle emissions and surface abrasion;
- discharges of ballast water and waste water from maritime and inland waterway vessels, especially in ports;
- use of antifouling agents on ships, releasing metal-organic and toxic substances;
- oil spills and accidents, including those from fuel transport and offshore oil extraction (e.g. Deepwater Horizon), which result in large-scale marine pollution.

Water pollution can affect aquatic ecosystems and drinking water sources.



Passenger mobility



J. Passenger mobility

This chapter presents the definitions used in national travel surveys and passenger mobility surveys. It distinguishes between definitions relevant to the collection of data on short-distance passenger mobility and those for medium- and long-distance travel. The main reason is that journeys with overnight stays and other medium- and long-distance trips are so infrequent that a retrospective survey is required to obtain reliable indicators (rather than, for example, a cross-sectional daily survey).

J.0-01 Multimodal passenger transport

Use of at least two different modes of transport within a single trip (see [J.I-01](#)) or journey (see [J.II-01](#)).

J.I. Short distance mobility (Up to 300 km)

J.I-01 Trip

Movement of a person from an origin (stay) to a destination (another stay) for a single main purpose (see [J.I-08](#)).

The origin and destination may be the same location (so-called 'loop trips') or may share the same purpose, in which case the trip refers to the movement between them.

A trip may consist of one or several stages (see [J.I-02](#)).

Trips made by transport professionals (e.g. taxi drivers, bus/train drivers) and trips related to public service duties (e.g. police) are excluded (see [J.I-08](#) for more information).

Trips that take place entirely on foreign territory may be excluded.

Active modes are included (see [J.I-06.1](#)).

J.I-02 Stage

Movement making use of one single transport mode, including any waiting time directly before or during the movement.

If there is a change of vehicle of the same mode of transport (e.g. changing from one bus to another), the decision whether to report it as one or two stages differs between reporting countries.

Also referred to as 'leg'.

J.I-03 Travel distance of a trip/stage

Length of the travelled track between two points.

Only distances on public areas, roads, paths, rails, inland waterways, air routes and seaways are included.

Distances are used for both trips and stages. The distance for a trip is defined as the sum of the distance of the relevant stages.

Trips through private areas not open to public traffic (e.g. a private garden or farmers' fields) are not included in the distance. If the entire trip goes through private areas, it should not be included in the survey.

J.I-04 Travel time of a stage

Time spent from starting to wait for a mode of transport until the time of leaving this mode.

J.I-05 Travel time of a trip

Duration from the moment of departure from one activity to the moment of arrival to the next activity.

The travel time for a trip is defined as the sum of the travel times (including waiting) for the involved stages.

J.I-06 Mode of transport of a trip/stage

Vehicle or non-vehicle (such as walking) used for travelling, including:

- passenger car as driver;
- passenger car as passenger (includes using car-sharing services as well as self-driving cars);
- taxi (as passenger, including all trips as a paying customer with professional or non-professional driver);
- van/lorry/tractor, etc., as passenger or as driver;
- motorcycle/moped;
- bus/coach;
- metro/tram/light rail;
- train (split into high-speed train, urban rail and conventional regular/regional train);
- aviation;
- waterways (including inland waterway and maritime transport covering all types of water-borne vehicles);
- cycling (including EPACs (see [B.II-09.1](#)));
- walking (including wheelchair, electric or not) and other active mobility such as skateboarding, roller-skating and non-electric kick scooter;
- other (including PLEVs (see [B.II-10](#))).

J.I-06.1 Active mode of transport of a trip/stage

Any form of human-powered transport, where movement is achieved through physical activity. There may be electric power assistance (see [B.II-09.1](#)).

J.I-07 Main travel mode of a trip

Travel mode within a trip that has been used for the longest distance.

When two modes have equal distance, the main mode is defined by the greatest travel speed.

J.I-08 Purpose of a trip

Main activity at the destination of a trip, including the following.

- **Work (commuting).** Work/commuting is the purpose for the first of all trips to the workplace at the location of the survey respondent's employer.
Attending a meeting outside the address of the company is a business trip; for employees working at a construction site for a long period, trips directly from home to the construction site are also work/commuting trips.
- **Business.** Trip related to work but not considered as commuting (attending meetings outside the address of the company, etc.).
*Also referred to as 'professional trips'.
Professional transport-related trips are excluded from reporting if, in the trip, the actual mileage is for professional business. This exclusion applies, for instance, for professional drivers of buses, lorries, vans and trains, as well as deliveries, driving schoolteachers, bus conductors, etc. Trips undertaken as part of public services in action such as the police, firefighters, emergency services, etc., are also excluded from reporting. However, if these professionals use their professional vehicles for non-professional purposes such as commuting or shopping, these trips should be reported.*
- **Education.** School or educational institution, school field trips, etc.
- **Shopping.** Shopping for groceries, non-daily shopping, etc.

- **Escorting.** Picking up, accompanying or escorting people; taking children to school; bringing someone to the station, etc.
- **Leisure.** Visiting friends/relatives, going out to eat or drink, touring/walking/cycling, sport/hobby, visiting vacation home, recreation at water/beach/mountains, cultural activities, entertainment, holiday, sightseeing, agritourism, voluntary work, private meetings, other leisure, etc. Loop trips are also included.
- **Personal business.** Services/personal care, health treatment, hairdresser, personal reasons, visit to a lawyer, religious activity, general errands (bank, post office, etc.), delivery or pick-up of things, etc.
- **Returning home.** Trip where the origin is not home, but the destination is home. Home is defined here as the primary residence (the dwelling where the person usually lives), secondary residence, occasional housing, hotel or other residence.
- **Other.** Other purpose.

J.I-09 Car occupancy

Number of persons in a passenger car, of all ages from babies to the oldest.

Professional drivers are excluded.

J.II. Medium- (300–1000 km) and long-distance travel (more than 1000 km)

J.II-01 Journey

Sum of trips away from home and back home again, which may include one overnight stay.

A journey without an overnight stay is defined as a one-day journey.

Home is defined as the primary residence (the dwelling where the person usually lives), secondary residence, occasional housing, hotel or other residence.

For international journeys, only the outbound and homebound parts of the journey should be included. Trips to the final destination during a stay in a foreign country are not included in the journey.

J.II-02 Journey's destination

Final location of the outbound trip.

In cases of uncertainty about the final stay, the location with the longest stay is chosen. If such a location does not exist, the location furthest away from home is chosen.

J.II-03 Travel distance of a journey

Distance is defined as the length of the travelled track.

Only distances on public areas, roads, paths, rails, inland waterways, air routes and seaways are included.

J.II-04 Travel time of a journey

Time spent travelling from the moment of departure from home to the moment of arrival at home.

It includes the time spent waiting between two consecutive stages.

For international journeys, only the outbound and homebound part of the journey should be included.

J.II-05 **Duration of a journey with overnight stay**

Number of nights spent, from leaving home until returning home.

J.II-06 **Mode of transport of a journey**

Vehicle or non-vehicle (such as walking) used for travelling, including:

- passenger car;
taxi are also included in this category except when collecting information on stages where a taxi is a typical access or egress mode for air and train travel;
- van/lorry/tractor, etc.;
- motorcycle/moped;
- bus/coach;
- train (split into high-speed trains and regular trains including regional trains and urban rail);
- aviation;
- waterways (including inland waterway and maritime transport covering all types of water-borne vehicles);
- cycling, walking, other.

Compared with short-distance mobility, a shorter list of modes is used for medium- and long-distance travel.

J.II-07 **Main travel mode of a journey**

Travel mode within a journey that has been used for the longest distance.

J.II-08 **Travel purpose of a journey**

Main reason for a journey.

Travel purposes include:

- **professional/business purpose:** business in the course of work, trade, employee business, education as part of a position, commuting to a workplace so far away that a place to stay at the destination is needed;
- **private purpose:** all purposes that are not professional.

J.II-09 **Accompanying travellers**

Persons travelling together with the respondent of the survey.

For cars and taxis, other persons in the same vehicle are covered.

J.II-10 **Car occupancy**

See [J.I-09](#).

J.III. **Urban area and urban mobility**

J.III-01 **Functional urban area (FUA)**

Urban area consisting of a city plus its commuting zone.

This is defined in the EU–Organization for Economic Co-operation and Development FUA definition, previously named LUZ (larger urban zone).

J.III-02 **Urban mobility**

Trips made by residents of an urban area, where both origin and destination are inside the same urban area.

Urban mobility is defined as the 'local' mobility of urban residents. 'Local' is defined as the proximity of the survey respondent's residence, or ideally the urban area in which the respondent lives. This approach is a pragmatic approximation for measuring urban mobility, in the event that the origin and the destination of the trip are not known, and therefore everything is based on residency of the respondent. Further refinement of this approach could include a distance threshold of 100 km, for instance, which would reduce errors from the potential movements of urban residents outside urban areas. However, one cut-off value may not be applicable for all urban centres. Therefore, countries are asked to evaluate what is appropriate for their specific situation and urban area size.

Symbols and abbreviations

INTERNATIONAL ORGANISATIONS

CAST:	Commercial Aviation Safety Team
CEN:	European Committee for Standardization
Eurostat:	Statistical Office of the European Union
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IMO:	International Maritime Organization
ISO:	International Organization for Standardization
ITF:	International Transport Forum
OECD:	Organisation for Economic Co-operation and Development
UIC:	Union Internationale des Chemins de Fer
UNECE:	United Nations Economic Commission for Europe

CLASSIFICATIONS AND NOMENCLATURES

ADN:	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (United Nations, 2025)
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road (United Nations, 2017)
HSC:	High Speed Craft Code (International Maritime Organization)
ISIC Rev. 5:	International Standard Industrial Classification of All Economic Activities (United Nations Statistics Division)
NACE Rev. 2.1:	Statistical classification of economic activities, NACE Revision 2 (OJ L 19, 20.1.2023, ELI: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R0137)
NHM:	Harmonised Commodity Code
NST 2007:	Standard Goods Nomenclature for Transport Statistics
NUTS:	Nomenclature of territorial units for statistics (Eurostat)
R.E.3:	United Nations Consolidated Resolution on the Construction of Vehicles
RID:	Regulation concerning the International Carriage of Dangerous Goods by Rail (Intergovernmental Organisation for International Carriage by Rail, 2017)
SITC/Rev. 4:	Standard International Trade Classification, Statistical Papers, Series M, No 34/Rev. 4 (United Nations, 2006)
UN/LOCODE:	United Nations Code for Trade and Transport Locations

ABBREVIATIONS

AA DT:	average annual daily traffic
AC:	alternating current
AIS:	automatic identification system
BTO:	basic transport operations
CNG:	compressed natural gas
CO:	Carbon monoxide
CSTE:	Commodity Classification for Transport Statistics in Europe
DC:	direct current
EPAC:	Electrically power-assisted cycle
FAME:	fatty acid methyl ester
FS:	flight stage
FUA:	functional urban area
GHG:	greenhouse gas
GTFS:	General Transit Feed Specification
HVO:	hydrotreated vegetable oil
ITU:	intermodal transport unit
LCL:	less than carload
LEZ:	Low-emissions zone
LNG:	liquefied natural gas
Lo-lo:	Lift-on/lift-off
LPG:	liquefied petroleum gas
LUV:	Light-utility vehicle
MAIS:	maximum abbreviated injury scale
NM VOC:	non-methane volatile organic compound
NO _x :	Nitrogen oxides
IM:	Infrastructure manager
OFOD:	on-flight origin/destination
PHV:	private hire vehicle
PLEV:	Personal light electric vehicle
PM:	particulate matter
PSO:	public service obligation
Ro-ro:	Roll-on/roll-off
RU:	Railway undertaking
SO _x :	Sulphur oxides
TTW:	tank-to-wheel
WTT:	well-to-tank
WTW:	well-to-wheel

UNITS

°C:	degree Celsius
µm:	micrometre
cc:	cubic centimetre
cm:	centimetre
dB:	decibel
dBA:	A-weighted decibel
ft:	feet
ghtk:	gross hauled tonne-kilometre
GT:	gross tonnage
h.p.:	horsepower
kg:	kilogram
km:	kilometre
km/h:	kilometres per hour
kPa:	kilopascal
KTOE	kilotonne of oil equivalent
kW:	kilowatt
kWh:	kilowatt-hour
m:	metre
m ² :	square metre
M ₂ :	passenger transport, vehicle of less than 5 tonnes
m ³ :	cubic metre
M ₃ :	passenger transport, vehicle of more than 5 tonnes
mi:	mile
mm:	millimetre
MTOE:	million tonnes of oil equivalent
MWh:	megawatt-hours
nmi:	nautical mile
pkm:	passenger-kilometre
t:	tonne (metric)
TEU:	twenty-foot equivalent unit
TJ:	terajoule
tkm:	tonne-kilometre
TOE:	tonne of oil equivalent
vkm:	vehicle-kilometre
W/m ² °C:	watts per square metre per degree Celsius

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