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Methodologies used in road freight transport surveys in Member States, EFTA and 3 Candidate countries

2025 edition

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Contents

Introduction

The present document contains the methodologies used by EU countries, EFTA and Candidate Countries for their surveys on road freight transport statistics.

This document provides a quite extensive coverage of what is available on road transport statistics methodology.

It is set out as following:

- Part 1 describes national methodologies for data collection. Information presented there is based on the national metadata completed by the reporting countries. These national metadata files refer to the existing information up to the first quarter of 2023.
- Part 2 includes summary tables, with the basic information on sampling, response rate, register quality and precision of results of the surveys.

Data on the register used to draw the sample and the sampling methodology is relevant to the surveys conducted in the first quarter of 2023, while the main figures given for each country refer to the years 2022 and 2023, according to data availability. Out of all the yearly figures, only the total number of statistical units is calculated as the average of the quarterly data, whereas for all the others, sums are considered. The results presented in the summary tables have been calculated from the supplementary B-tables.

Concepts and definitions used in road freight transport statistics can be found in the manual 'Road freight transport methodology', i.e., the reference manual for the implementation of the Regulation (EU) No 70/2012 on statistical returns in respect of the carriage of goods by road.

Further information on road freight transport statistics

Detailed data and metadata are available in the Eurostat dissemination database under the collection 'Road freight transport measurement (road_go)'

http://ec.europa.eu/eurostat/data/database

'Road freight transport methodology', the reference manual for the implementation of the Regulation (EU) No 70/2012 on statistical returns in respect of the carriage of goods by road:

https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-16-005

Belgium

Organisation responsible for the conducting the survey:

Statistics Belgium (Direction générale Statistique Statbel)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Register of Motor Vehicles.

Name of organisation who maintains the register:

Ministry of Mobility and Transport.

Frequency of update:

Monthly.

Frequency of access to draw the samples:

Weekly.

Arrangements for accessing the register:

The register is obtained by file transfer.

Information obtained from the register:

Name and address of owner, license plate number, chassis number, VAT-number, load capacity, type of vehicle, type of body, brand.

Stratification: load capacity and type of body.

Procedure for reminders:

One reminder is sent after 1 month.

Response rate: 50-60 %.

Sampling methodology

Statistical unit:

Tractive vehicle.

Types of units excluded:

Agricultural vehicles, military vehicles, public administration and public service vehicles and vehicles not destined to the transport of goods.

Vehicles with a load capacity of less than 1 tonne.

Time unit:

One week.

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks).

Stratification:

The sample is stratified according to 2 criteria: own account versus hire or reward and load capacity (9 classes): this gives 18 strata.

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: There is a 1-to-1 relation between journeys and goods (1 journey = 1 (main) good).

Multi stop: The distance considered for the calculation of the tonne-kilometres is the 2/3 of the total course in loading.

Collection/delivery: The distance considered for the calculation of the tonne-kilometres is the half of the total course in loading.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'}$$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)

- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	103 030	107 080
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	17 080	18 879
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 212	2 425
Number of cases classified as non-respondents	9 309	10 281
Number of cases where sample register information was wrong and response could not be used	602	594
Number of questionnaires used in analysis	4 957	5 579

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Bulgaria

Organisation responsible for the conducting the survey:

National Statistical Institute

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Register of Motor Vehicles.

Name of organisation who maintains the register:

The Ministry of Interior.

Frequency of update:

Quarterly updated.

Frequency of access to draw the samples:

Once a quarter.

Arrangements for accessing the register:

Bilateral inter-institutional agreement between the NSI and the Ministry of Interior for providing statistical information.

Information obtained from the register:

Vehicles' registration number, type of vehicle, year of first registration, maximum permissible laden weight, load capacity, number of axes, region, name and address of the owner, model gross weight.

In the stratification of the sample are used region and gross weight.

Procedure for reminders:

First reminder: 2 weeks after the end of the surveyed week.

Second reminder: 4 weeks after the end of the surveyed week.

The response rate is adequate.

Sampling methodology

Statistical unit:

Tractive vehicle.

Types of units excluded:

Vehicle with maximum permissible laden weight under 6 tonnes, military vehicles, vehicles of the Ministry of Interior and other public administrations, agriculture tractors and other motor vehicles not designed to carry goods, vehicles with weight and dimensions exceeding the normal permitted limits of the country.

Time unit:

One week.

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks).

Stratification:

The sample for each quarter of the year is stratified by vehicles' gross weight (6 groups) and country's regions (28 regions), which give 168 strata.

The annual size of the sample for 2014 is provided on the base of sample size, tonnes carried and tonne-kilometres performed in 2013 and is stratified by vehicles' gross weight into 6 groups:

- Group 1: Lorries and special vehicles with gross weight up to 7 499 kg;
- Group 2: Lorries and special vehicles with gross weight from 7 500 kg up to 14 999 kg;
- Group 3: Lorries and special vehicles with gross weight from 15 000 kg up to 16 999 kg;
- Group 4: Lorries and special vehicles with gross weight from 17 000 kg up to 24 999 kg;
- Group 5: Lorries and special vehicles with gross weight above 25 000 kg;
- Group 6: Road tractors.

Each quarter the 6 groups sample is distributed proportionally by the 28 regions.

Recording of weight of goods:

Gross weight of goods is reported. The containers swap bodies or pallets are excluded from the weight of goods.

Recording of journey data sent to Eurostat:

Single stop: Respondents can record only one type of goods, i.e., goods of larger weight. If no type of goods is dominant, the commodity 'Miscellaneous' is recorded.

Multi stop: Each transport operation is recorded.

Collection deliver: For type 3 journeys with more than 5 points for loading and unloading, the respondents are asked to fill in the total distance travelled loaded and the total distance empty, the total weight of transported goods, the main type of goods and the number of stops.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'}$$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.).

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)

- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	82 700	77 847
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	16 000	16 000
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	3 393	3 544
Number of cases classified as non-respondents	6 302	6 081
Number of cases where sample register information was wrong and response could not be used	2 785	2 447
Number of questionnaires used in analysis	3 525	3 928

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Czechia

Organisation responsible for the conducting the survey:

Ministry of Transport

(Based on information referring to the first quarter of 2022)

Sampling register used for the survey

Name of register:

Central Register of Vehicles.

Name of organisation who maintains the register:

Ministry of Transport.

Frequency of update:

Continuously.

Frequency of access to draw the samples:

Once a quarter.

Arrangements for accessing the register:

Sample of road vehicles is being selected by the administrator of the Central Register of Vehicles following agreed criteria (according to territorial units and weight categories).

Information obtained from the register:

List of vehicles including assigned license plate, holders of vehicle company, territorial unit (districts), type of body of goods road vehicle, weight category, vehicle type, year of first registration, fuel used, load capacity, permissible weight and number of axles.

Used in stratification: Load capacity, vehicle type and territorial unit.

Procedure for reminders:

The questionnaire for a given period surveyed is sent one week in advance. The deadline for response is 12 days following the end of the period surveyed. The first reminder is sent 14 days following termination of the mentioned period. If no response is received within next 14 days, the second reminder is sent to the vehicle's holder.

If the Ministry of Transport is informed about the recent change of the ownership of a vehicle (not recorded in the register yet) or about leasing of a vehicle, then, if possible, a questionnaire is sent once more to the real operator of the vehicle.

The response rate is considered quite adequate, it varies around 91%.

Sampling methodology

Statistical unit:

Tractive vehicle.

Types of units excluded:

Vehicles with a load capacity less than 2 tonnes and vehicles with oversized load, agriculture vehicles, military vehicles and public administration vehicles.

Time unit:

One week.

Time units of quarter 1 of 2022 included in the survey:

All (13 weeks).

Stratification:

The sample is stratified according to 4 weight categories and 8 territorial units.

Weight categories:

1. 2–6 tonnes

2. 6–10 tonnes

3. More than 10 tonnes

4. Tractors

Territorial units:

1. Praha

5. Střední Čechy

6. Jihozápad

7. Severozápad

8. Severovýchod

9. Jihovýchod

10. Střední Morava

11. Moravskoslezsko

The stratum code consists of 2 numbers. The first is the code of the weight category and the second is the code of the territorial unit (e.g., 11, 12, ..., 18, 21, 22, ..., 28, ..., 41, ..., 48).

Recording of weight of goods:

Gross weight of goods is collected. Large freight containers and swap bodies are excluded from the weight of goods. The pallets are included in the weight of goods.

Recording of journey data sent to Eurostat:

Single stop: Respondents can record only one type of goods, i.e., goods of largest weight.

Collection/delivery: The first place of loading of the goods and the furthermost place of unloading is being used.

Other variables: Most frequently used type and axle configuration of trailers or semi-trailers during a surveyed week is used for coding.

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S + S'}$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	165 398	167 324
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	17 960	17 960
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	4 290	4 345
Number of cases classified as non-respondents	1 960	2 125
Number of cases where sample register information was wrong and response could not be used	2 045	1 849
Number of questionnaires used in analysis	9 665	9 641

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Denmark

Organisation responsible for the conducting the survey:

Statistics Denmark

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Central Register of Motor Vehicles (CRM) and Road Worthiness Test (RWT).

Name of organisation who maintains the register:

Danish Tax Authority (Skat).

Frequency of update:

Monthly.

Frequency of access to draw the samples:

Quarterly.

Arrangements for accessing the register:

Statistics Denmark receives monthly a complete copy of the Danish register for motor vehicles and maintains a full copy for analytical and statistical purposes. From this copy a selection of vehicles are sampled.

Information obtained from the register:

From Register of vehicles:

- Vehicle Registration number
- Type of vehicle (lorry, road tractor, etc.) [*]
- Primary vehicle use (freight, taxi, etc.)
- Net weight
- Maximum permissible laden weight [*]
- Unladen vehicle weight
- Number of axles
- Available coupling
- Type of permission for the vehicle use (e.g., own account, road freight, animal transport, etc.) [*]
- First date of registration in Denmark
- VAT number of owner

From Roadworthiness test:

- Vehicle registration number
- Date of last road worthiness test
- Odometer reading [*]

[*] *indicated stratification variables.*

Procedure for reminders:

Statistics Denmark has a general policy and procedure for reminders that is followed in the road freight survey.

First written reminder (by e-mail, if known) 1 week after collection week.

Second written reminder (by e-mail, if known) 2 weeks after collection week.

Third reminder by phone 3 weeks after collection week.

Fourth written reminder by registered letter.

After last due date set in the fourth reminder, the matter is turned over to the police for legal proceedings according to Law on Statistics Denmark. First time fines are usually set to DKK 800 (approximately EUR 100).

The response rate is between 98 and 99 %.

Sampling methodology

Statistical unit:

Tractive vehicle.

Types of units excluded:

Vehicles below 6 tonnes maximum permissible laden weight and personally owned vehicles are excluded.

Estimations for the vehicle-km (or performance) not covered by the survey:

Based on odometer readings an estimate for the total vehicle-km for all vehicles above any limit can be made. It is however not possible to assess neither vehicle-km nor performance not covered on road freight transport since not all vehicle-km should be counted as road freight.

Time unit:

1 week.

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks).

Stratification:

The variable STRATUM indicates the strata of the vehicle with a three-digit code. Stratification is done by type of vehicle, use of vehicle and the expected vehicle-km.

First digit is the type of vehicle and can assume the following values:

1. = Sole lorries (mostly)

2. = Lorries with coupling, 15–18 tonnes

3. = Lorries with coupling, 18–24 tonnes

4. = Lorries with coupling, above 24 tonnes

5. = Road tractor, less than 18 tonnes

6. = Road tractor, 18–24 tonnes

7. = Road tractor, above 24 tonnes

Second digit is the use of vehicle and can assumes the following values:

1. = Transport by reward

2. = Own account

Third digit is the expected vehicle-km based on past performance within the strata based on the first two digit from the odometer reading in the road worthiness tests and can assumes the following values:

1. = Less than median

2.   More than median

3.   New vehicle (no odometer readings

Recording of weight of goods:

The weight of containers, swap bodies, etc. are excluded the weight of goods.

Recording of journey data sent to Eurostat:

Single stop: Type 1 (single stop) journeys include multi-stop journeys in the Danish survey. The journeys are split by stages and type of good is the dominant good.

Multi stop: It is assumed that multi-stop journeys are small in number and can be described as a series of single journeys or as a collection/delivery journey.

Collection/delivery: Tonne-kilometres = 0.5 *tonnes loaded * journey length

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{R}$

N = number of vehicles in the register (in a stratum)

R = number of responses within stratum

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables:

None. Outside the scope of freight statistics, emissions are calculated within the environmental satellite account to national accounts.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (NO)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	37 222	37 207
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 650	8 896
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 849	2 913
Number of cases classified as non-respondents	190	219
Number of cases where sample register information was wrong and response could not be used	513	451
Number of questionnaires used in analysis	5 098	5 313

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Germany

Organisation responsible for the conducting the survey:

Kraftfahrt-Bundesamt (KBA)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Zentrales Fahrzeugregister (ZFZR).

Name of organisation who maintains the register:

Kraftfahrt-Bundesamt (KBA).

Frequency of update:

Continuous.

Frequency of access to draw the samples:

Every 4 weeks.

Arrangements for accessing the register:

As administrative database of nationally registered vehicles, the register is located and maintained in a unit which is totally distinct from the statistical domain. Data access is legitimated by national legal act and strictly limited to the variables given in the law. Data access is logged and carried out via webservice.

Sampling from the register is carried out in accordance with the sample and stratification plan which is designed in cooperation with NSA (Federal Statistical Office).

Information obtained from the register:

Information for stratification: address of the vehicle owner, owner group, region of registration, type of vehicle, load capacity.

Information to conduct the survey: licence plate number, name and address of the vehicle owner, maximum permissible laden weight, load capacity, type of vehicle and body type, owner group.

Information to relieve the burden of respondents: date of first registration of the vehicle, maximum permissible laden weight, load capacity, engine power, number of axles, type of vehicle and body type, region of registration (Bundesland), owner group, exhaust emissions class.

Procedure for reminders:

Questionnaires are being sent out weekly for two reporting periods of a half-week at the time. Thus, the questionnaire gets to the respondent close to the reporting period (about 10 days ahead). If the vehicle owner is not the user, after notification a questionnaire is sent soonest possible to the user. As a response obligation exists the deadline is checked weekly (about 12 days after the end of the reporting period). If the questionnaire remained unanswered, one reminder is sent. If the reminder remains unanswered as well, a penalty procedure is launched. Response can be made either by online-questionnaire (available since the end of 2006) or by paper-questionnaire. A hotline is installed.

The sample includes roughly 180 000 vehicles per year in Germany drafted in a total of 13 sample series. Flyback results indicate a response rate of about 93%. Approximately 67% have responded providing journey data. The register quality is around 95%.

Sampling methodology

Statistical unit:

Tractive vehicle.

Types of units excluded:

Not covered are operations by heavy utility vehicles of categories N2 and N3 (see Directive 2007/46/EC of the European Parliament and of the Council) which are:

- not designed for the transportation of goods such as:

  - Special purpose lorries (BA16, BA19, BA20, BA23, BA25, BA26, BA27, BA28, BA31)
  - Tractors (BD)
  - Mobile crane (SF)

- vehicles of public administrations;
- vehicles which are over 30 years of age (from 2015 onwards).

Also not covered are operations by light lorries up to 3.5 tonnes (including) weight capacity or up to 6 tonnes (including) maximum permissible laden weight (if weight capacity is not present).

Estimations for the vehicle-km (or performance) not covered by the survey:

Estimation of vehicle-km can be done using odometer readings from road worthiness tests for motor vehicles. Thereafter the estimation for vehicle-km of all light-duty lorries (up to 6 tons maximum permissible weight, including vehicles not designed for freight transport) comes up to about 54.6 thousand million km in 2019.

Time unit:

Half a week (either Sunday 22 o'clock to Wednesday 24 o'clock, or Thursday 0 o'clock to Sunday 22 o'clock).

Time units of quarter 1 of 2023 included in the survey:

27 half-weeks (from 5 sample series).

Stratification:

Stratification is done in 5 hierarchical steps; 72 strata are distinguished:

   1st level: Fleet size (2 classes)

   2nd level: Owner group (2 categories)

   3rd level: Region of vehicle registration (6 categories)

   4th level: Vehicle class (2 classes)

   5th level: Vehicle size of lorry (2 classes)

Number of stratum for vehicles

First digit: Region of registration (grouped NUTS 1)

   1: Ostsee: Schleswig-Holstein (DEF), Mecklenburg-Vorpommern (DE8)

   2: Nordsee: Bremen (DE5), Hamburg (DE6), Niedersachsen (DE9)

   3: Nordrhein-Westfalen (DEA)

   4: Mitte: Hessen (DE7), Rheinland-Pfalz (DEB), Saarland (DEC)

   5: Ost: Berlin (DE3), Brandenburg (DE4), Sachsen (DED), Sachsen-Anhalt (DEE), Thüringen (DEG)

   6: Süd: Baden-Württemberg (DE1), Bayern (DE2)

<u>Second digit</u>: Owner features (registered economic activity and fleet size in the population)

Owner group 'Transportation and storage'

   1: fleet up to 5 vehicles

   2: fleet of more than 5 vehicles

Other owner groups

   3: fleet up to 5 vehicles

   4: fleet of more than 5 vehicles

<u>Third digit</u>: Vehicle features (vehicle class and size)

Owner group 'Transportation and storage'

   0: road tractor

   1: lorry; load capacity of 3 501 tonnes to less than 11 500 tonnes

   2: lorry; load capacity of 11 500 tonnes and more

Other owner groups

   0: road tractor

   3: lorry; load capacity of 3 501 tonnes to less than 9 500 tonnes

   4: lorry; load capacity of 9 500 tonnes and more

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

For every single journey or vertical stage (in case of multi-stop journey) data are collected for goods weight (kilogram) and vehicle-kilometres (kilometre) from which transport performance (tonne-kilometres) or journey-related data (in case of multi-stop journey) are calculated.

Journey type 1 (single stop):

Variable A2.2 = Weight of goods transported on the journey (weight)

Variable A2.5 = Distance travelled on the journey (distance)

Variable A2.6 = A2.2 * A2.5 (transport performance)

Journey type 2 (multi-stop): The measures for the journey are calculated from vertical stage data.

Variable A2.2 = A2.6 / A2.5 (weight; weighted average)

Variable A2.5 = Sum of distances travelled on all vertical stages (distance)

Variable A2.6 = Sum of each stage's product of "kg" * "km" (transport performance)

Variable A3.2 = A2.2 (weight)

Variable A3.7 = A2.5 (distance)

Journey type 3 (collection/delivery)

Variable A2.2 = Maximum weight of goods transported on the journey (weight; maximum)

Variable A2.5 = Distance travelled on the journey (distance)

Variable A2.6 = A2.2 * A2.5 (transport performance)

Variable A3.2 = A2.2 (weight)

Variable A3.7 = A2.5 (distance)

Calculation of weighting factors:

The calculation of the grossing factor is done on a monthly basis (not quarterly) in two steps. At first each series is extrapolated considering missing answers in stratum using multiplicative completion. In a second step a monthly and stratum adaptation to the current stock data is done. Since the survey period may cover two different months the vehicle day is the unit for the adaptation instead of the survey period.

The grossing factor for the journeys of a vehicle, that belongs to a stratum h, drawn in series i, with journeys in month j is as follows:

$$\frac{M_{hj}}{\hat{M}_{hj}} \times \frac{8N_{hi}}{n_{hi} - n_{hi,a}}$$

N_{hi} = number of vehicles in stratum h at the time of the drawing of the series i

n_{hi} = number of selected vehicles in stratum h of series i

$n_{hi,a}$ = number of real non-response of vehicles in stratum h, which were selected in series i (no feedback, refusals, questionnaire undeliverable, specifications of user not available)

M_{hj} = number of vehicle-days in stratum h in month j of the population

$\hat{M}_{hj}$ = number of vehicles-days in stratum h in month j extrapolated from the sample

M_{hj} should be correctly identified using a daily count of each stratum of the vehicle register and in adding in each stratum the results of all days in the month. For practical reasons a good approximation is made multiplying the stock made up of stratum on the 15th of each month with the length of the month in days (i.e., 28, 29, 30 or 31). The method of extrapolation with the monthly adaptation to the actual stock of vehicles allows including estimates for the registration of new vehicles between the date of the sample drawing and the reference period. Missing answers are also estimated. Under the assumption that missing answers in each stratum occur at random the additional estimation of missing answers does not cause any bias.

The weighting factor is affected by the following items:

- Reporting period not congruent with quarter

  The initial sample of one sample series (vehicle sample stratified by 72 strata) covers a reporting period of 8 half-weeks (time-related sample).

- Reminder

  One reminder, send to non-respondents, gives a new reporting period. The new reporting period can be in another quarter.

- Monthly grossing up

  As data is collected continuously in sample series with time-units of a half-week a reference period of one quarter is covered by 27 half-weeks (from 5 sample series).

As one vehicle may report in two different months and grossing up is done monthly these vehicles have different grossing factors in each month and are reported as different A1-records. So, the number of A1-records is higher than the selected vehicles in the initial sample. As "grossing up factor used" varies within strata and number of A1-records is related to "grossing up factor used" Germany provides table B1 since reporting period 2015 (including) in two tables as agreed by e-mail of 16 December 2016. Table B1a gives the information about the initial sample and table B1b gives the number of A1-data records.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	567 247	573 665
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	186 060	185 881
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	39 532	42 414
Number of cases classified as non-respondents	14 812	16 047
Number of cases where sample register information was wrong and response could not be used	9 485	9 832
Number of questionnaires used in analysis	122 230	117 588

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Estonia

Organisation responsible for the conducting the survey:

Statistics Estonia

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Estonian Traffic Register

Name of organisation who maintains the register:

Transport Administration of Estonia

Frequency of update:

Continuously

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

The order of Ministry of Economic Affairs and Communications by which the Vehicle Register is obliged to give the data to the Statistics Estonia.

The agreement between Statistics Estonia and Estonian Transport Administration about data exchange between those two organisations.

Information obtained from the register:

Data from the traffic register of the Estonian Transport Administration (vehicle details and authorised user), data from the Register of Economic Activities (the certified copies of licenses (carriage of goods)) are used.

From the Estonian Traffic Register the following data are obtained:

- Type of vehicle, registration number of vehicle, mark and model, maximum permissible laden weight, load capacity, age of vehicle (year and date of first registration), vehicle category, body type of lorry, type of fuel, number of axles of lorry or tractor, register weight, maximum gross weight of trailer, maximum load capacity of trailer, name and address with postal code of the vehicle user (or owner, when user information is not available), register code of enterprise or natural person (ID code); special characteristic for foreign owner.
- Main activity (NACE Rev.2) of enterprise/organisation using the vehicle is obtained from the register of economically active enterprises called the Statistical Profile. The Statistical Profile is created on the basis of the Commercial Register.

The data on licenses from the Register of Economic Activities are downloaded from the database at https://mtr.mkm.ee, data from the Estonian Transport Administration are received via an FTP-server and data from the Population Register via X-Road.

Data used for stratification of sample: main activities (NACE Rev.2) of enterprise/organisation using the vehicle (4941/other activities), sole proprietors as users; type of vehicle and body type, maximum load capacity of lorry, year of manufacture.

Procedure for reminders:

Statistics Estonia has a standard routine for reminders in electronic data collection system eSTAT:

- Deadline is 8 days after the survey week. Most of the data respondents (99.7 %) have an e-mail address.
- First reminder: 3 days after the deadline by e-mail (or by phone is no e-mail address is available)

- Second reminder: 8 days after the deadline by e-mail (or by phone is no e-mail address is available)
- Third reminder: 37 days after the deadline by e-mail. (or by phone is no e-mail address is available)
- After the third reminder, the vehicle users will be contacted by (mobile) phone.

The response rate is satisfactory, but the number of working vehicles is low. Response rate is about 80 %, but the share of working vehicles is only 20 %.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Lorries less than 3.5 tonnes load capacity, military vehicles, vehicles of public administrations and public services, agricultural tractors, vehicles with age of vehicle over 25 years, special purpose vehicles such as truck cranes, fire-engine vehicles, road maintenance vehicles and other special purpose vehicles are also excluded, if it is possible to identify them from sampling frame by Estonian Transport Administration. For 2022 Q4 and 2023Q1, purpose-built garbage trucks were also excluded.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

Stratum No	Description	Frame	Sample	Weighting factor
1	**Road tractors of road transport enterprises NACE rev.2 code 4941**	7 979	650	252.38
2	**Lorries: Load capacity > 3.5<10 tonnes: of road transport enterprises NACE rev.2 code 4941**	1 351	26	878.15
3	**Lorries: Load capacity >10 tonnes: of road transport enterprises NACE rev.2 code 4941**	2 011	182	221.55
4	**Road tractors of all other enterprises Nace rev 2**	2 079	234	152.69
5	**Lorries: Load capacity > 3.5<10 tonnes: all other enterprises NACE rev.2**	2 416	26	1 495.62
6	**Lorries: Load capacity >10 tonnes: all other enterprises NACE rev.2**	2 425	390	91.38

Recording of weight of goods

Gross-gross weight of goods is collected, i.e., containers swap bodies and pallets are included.

Recording of journey data sent to Eurostat:

Single stop, multi stop and collection/delivery: If more than one goods commodity is carried, it is coded as NST2007 group 18–Grouped goods: a mixture of types of goods which are transported together; 19–Unidentifiable goods: goods which cannot be assigned to groups 01–16 or 20–Other goods. If mixed goods are selected, then goods loading type is set according to good with highest weight.

Other variables: We assume that within one journey only one commodity is carried. If the cargo is known to be of mixed types, such as food and other consumer products for stores, the respondents are instructed to use the NST code 18.

Estimation of maximum permissible laden weight:

Maximum permissible laden weight in dataset A2 is not estimated, collected information is used.

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S + S'}$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.).

No post-stratification used.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables:

Type of fuel used. No information about fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	18 140	16 959
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	6 032	6 240
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 395	2 530
Number of cases classified as non-respondents	1 058	1 112
Number of cases where sample register information was wrong and response could not be used	1 379	1 425
Number of questionnaires used in analysis	1 200	1 173

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Ireland

Organisation responsible for the conducting the survey:

Central Statistics Office

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Goods Vehicle File

Name of organisation who maintains the register:

Department of Transport

Frequency of update:

The goods vehicle file is updated on a daily basis within the Department

Frequency of access to draw the samples:

Every 8 weeks

Arrangements for accessing the register:

Every 8 weeks, the CSO receives an updated goods vehicle file from the Vehicle Registration Unit of the Department of Transport. This file contains details of all vehicles currently taxed as goods vehicles in the State. The file is used to update the CSO's Register of goods vehicles which contains only vehicles with an un-laden weight of 2 000 kg and over. The CSO register is updated each time to reflect any newly licensed vehicles or vehicles that are no longer in use (these are deleted). Vehicles on the CSO register which have not been taxed in over 3 years are also deleted from the register.

Information obtained from the register:

The data obtained from the Department of Transport file are as follows:

- Year and month when the taxation certificate on the vehicle expires
- Motor tax office code (2 digit) in which the vehicle is taxed
- Unladen weight of the vehicle
- Registration number of the vehicle
- Society of Motor Industry code of the vehicle
- Year of manufacture of the vehicle
- Taxation use (own account/hire or reward–1 digit code)
- License Code (to show if the vehicle is licensed for carriage of owner's goods only or for hire and reward)
- Fuel type of vehicle (1 digit code)
- Body type of vehicle (2-digit code)
- Name and address of owner of vehicle
- Year of first registration of vehicle
- Make (3-digit character code) & model (3-digit code) of vehicle
- New/second hand (1 digit code)

Two new variables are created when updating the CSO Register:

- Age – calculated from the year of manufacture of the vehicle (3 age categories)
- Size – calculated from the un laden weight of the vehicle (3 size categories)

There are 9 sample selection strata based on the 9 different combinations of the age and size categories.

Procedure for reminders:

A final reminder is sent if the questionnaire has not been returned by post or online within 12 days of the due date.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

The following vehicles are excluded:

- Vehicles with an unladen weight of less than 2 000 kg
- Vehicles not registered for the transport of goods
- Vehicles taxed as non-commercial vehicles

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

There are 20 strata which are used for grossing based on year of manufacture, unladen weight, taxation class and year of first registration. These are aggregated to 9 strata for sample selection. Different sampling rates are applied to different selection strata. 15 % of vehicles in selection strata 1, 4 and 7, 50 % of vehicles in selection strata 2, 5 and 8, and 90 % in strata 3, 6 and 9 are sampled. Any vehicle selected is only sampled once in any survey year.

Recording of weight of goods:

Gross weight of goods is collected; containers swap bodies and pallets are excluded, but pallets might be included.

Recording of journey data sent to Eurostat:

Single stop: Our practice is to record only one goods type per journey. This would be recorded as a mixed load if there are more than one goods commodity carried.

Multi stop: Our practice is to record only one origin and one destination for each journey. For each journey, the origin, destination, number of collection stops and weight of goods collected and the number of delivery stops and weight of goods delivered are recorded. Tonne-km for the journey as a whole is derived by the processing system.

Collection/delivery: Our practice is to record only one origin and destination for a journey. The origin and destination, number of collection stops and weight of goods collected and the number of delivery stops and weight of goods delivered are recorded. There is no facility to enter tonne-kilometres on the data entry system so tkm are calculated using formulas for a combination of collection and delivery stops.

Calculation of weighting factors:

When calculating the grossing factor per stratum, the average active vehicle population per stratum is first estimated. This is done by adding the number of vehicles in each stratum at the beginning and end of the calendar quarter and dividing by 2 which gives the average population of vehicles per strata. This figure serves as the benchmark figure for each stratum to which the survey estimates are grossed up to. The number of vehicles with activity during the quarter (vehicles included in A1) is then added to the number of non-working vehicles during the quarter for each stratum to give the total number of active vehicles in each stratum. The grossing factor is then calculated by dividing the average number of vehicles in the stratum by the number of active vehicles in the stratum multiplied by 13 (13 weeks in the quarter).

Weighting factor $= 13 \times \dfrac{N}{S + S'}$

N = average number of vehicles on register in stratum for quarter (sum of number of vehicles on register in a stratum at the beginning and the end of a quarter divided by 2

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

No calibration is used.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO – 2-digit only)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES–at ports)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES–at ports)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	161 309	172 378
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	25 578	6 450
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	4 686	1 248
Number of cases classified as non-respondents	15 093	3 817
Number of cases where sample register information was wrong and response could not be used	331	91
Number of questionnaires used in analysis	5 468	1 294

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Greece

Organisation responsible for the conducting the survey:

Hellenic Statistical Authority

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Vehicle Register

Name of organisation who maintains the register:

Ministry of Infrastructure and Transport

Frequency of update:

Continuous

Frequency of access to draw the samples:

Once a year

Arrangements for accessing the register:

Once in a year, according to the stratification plan of the sample, a copy of the circulating goods road motor vehicles on 31st December is obtained from the Ministry of Infrastructure and Transport.

Information obtained from the register:

Name, address, use of vehicle, maximum permissible laden weight, load capacity, type of vehicle, type of body, axles, year of national registration and registration number.

The same register is used for the vehicles performing international transport and the data are updated with information from previous surveys.

Procedure for reminders:

The survey is conducted through interviewers who are entrusted with the task to contact the vehicle owner until the end of the survey's collection phase.

The efforts are focused on the improvement of the information of the register (as regards contact details) and the monitoring of the work of the interviewers.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles with load capacity less than 3.5 tonnes and less than 6 tonnes of maximum permissible weight, military vehicles, vehicles of public administration and agricultural tractors.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The following information concerning stratification variables and codes used is provided.

The vehicles are separated in (by estimation):

1. Those conducting national journeys

2. Those conducting international journeys

For vehicles conducting national journeys, the strata are defined by:

1. The geographical division (NUTS 1)

    1. VOREIA ELLADA (North Greece)

    2. KENTRIKI ELLADA (Central Greece)

    3. ATTIKI (Attica)

    4. NISIA AIGAIOU, KRITI (Aegean Islands and Crete)

2. The use of the vehicle (in Greece a vehicle can have a permission for private or public use):

    1. Hire or Reward (Public use)

    2. On Own Account (Private use)

3. The type of the vehicle

    1. Lorries with load capacity 3.5–7.9 tonnes

    2. Lorries with load capacity 8–12.9 tonnes

    3. Lorries with load capacity greater than 13 tonnes

    4. Tank-trucks and lorries with specific 'body'

    5. Tractors

For vehicles conducting international journeys, the strata are also defined by the geographical division (NUTS 1). Note that for those vehicles, the type of the truck is coded as 6.

As the vehicles of a large company (operating on a 24/7 basis) had a significant impact on the results, a new stratum was created (coded as 7) and is surveyed exhaustively. The data of this stratum are treated as confidential.

Recording of journey data sent to Eurostat:

Single stop: Respondents can record only one type of goods, i.e., goods of largest weight. If no type of goods is dominant then 'miscellaneous' is used.

Multi stop: Multi-stop journeys are coded by consignments.

Collection/delivery: For short distance journeys of type 3 (collection/delivery) with more than five points of loading and/or unloading, the respondent is not asked for the details of all the stops, but is asked about the number of stops, the distance travelled loaded and the distance travelled unloaded, the total weight transported and the main type of good (as in type 1).

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S + S'}$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Information on type of fuel and fuel consumption could be provided in the future but it should be considered as core variable in order to be collected.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	89 121	91 479
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 256	8 465
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	682	969
Number of cases classified as non-respondents	3 066	3 904
Number of cases where sample register information was wrong and response could not be used	299	384
Number of questionnaires used in analysis	4 209	3 208

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Spain

Organisation responsible for the conducting the survey:

Minister of Transport and Sustainable Mobility

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Registro de Empresas y Actividades de Transporte

Name of organisation who maintains the register:

Ministry of Transport and Sustainable Mobility

Frequency of update:

Continuously

Frequency of access to draw the samples:

Once a month

Arrangements for accessing the register:

The register belongs to the Ministry

Information obtained from the register:

Name, registration number, address, type of vehicle, type of transport (own account or hire or reward), range of authorisation of action of the vehicle (local, national, international), year of registration, load capacity and maximum permissible weight, region (Autonomous Community) where the vehicle is registered.

Used in stratification: Type of transport, region (Autonomous Community) where the vehicle is registered, load capacity and type of vehicle.

Procedure for reminders:

During the week of reference and the following four weeks, daily phone calls are made.

During this period, if the company is not found, new addresses and telephone numbers of the companies are looked for.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

'Light' transport vehicles: less than 3.5 tonnes weight capacity and less than 6 tonnes of maximum permissible laden weight.

Special vehicles with very high weight capacity or dimensions, which need a special registration number.

Military vehicles and those belonging to Public Administrations.

Vehicles whose use is not for transport of goods: excavators, rollers, etc.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

There are 10 strata (in proportion to the frame):

- Type of transport:

    1.   own account

    2.   hire or reward

- Type of vehicle and weight capacity:

    1.   lorries of 3.6 to 10 tonnes

    2.   lorries of 10.1 to 13.5 tonnes

    3.   lorries of over 13.5 tonnes

    4.   tractors

- Region (Autonomous Community) where the vehicle is registered

    5.   Islas Canarias

    6.   Remaining regions

Recording of weight of goods:

When possible, the weight of containers is excluded, but in most cases the informant only knows the total weight carried. The weight of goods rarely excludes swap bodies and pallets.

Recording of journey data sent to Eurostat:

Multi stop: Multi-stop journeys are coded as consignments.

Collection/delivery: Without points of loading and/or unloading of the goods,

Tonne-kilometres = maximum tonnes * kilometres / 2.

Only the main type of goods is requested (but all tonnes).

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'} \times T$$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

T = number of weeks in the month

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	381 602	383 322
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	56 000	53 000
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	11 034	9 584
Number of cases classified as non-respondents	1 126	567
Number of cases where sample register information was wrong and response could not be used	17 587	17 031
Number of questionnaires used in analysis	26 186	25 818

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

France

Organisation responsible for the conducting the survey:

Ministry for the Ecological Transition

Directorate for statistical data and studies (SDES)

(Based on information referring to the first quarter of 2022)

Sampling register used for the survey

Name of register:

National vehicle register (*Répertoire statistique des véhicules routiers*)

Name of organisation who maintains the register:

Ministry for the Ecological Transition

Directorate for statistical data and studies (SDES)

Frequency of update:

The national register is updated daily. The sampling frame is annual with three quarterly updates

Frequency of access to draw the samples:

Annual with quarterly updates

Arrangements for accessing the register:

The data are forwarded by the ministry daily.

Information obtained from the register:

Registration; date of first registration; brand; model; Type of vehicle (lorry or road tractor); type of body; power source; fiscal power; load capacity; maximum permissible weight; useful load; name and address of the owner; and administrative region (NUTS3).

Used in stratification: date of first registration; type and age of the vehicle; load capacity (lorry); fiscal power; maximum permissible weight (road tractor); main activity of the enterprise; and administrative region (NUTS1).

Procedure for reminders:

First reminder: 6 weeks after the surveyed week.

Second reminder: 12 weeks after the surveyed week, with a new copy of the questionnaire sent out.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Motor vehicles more than 15 years or older at the time of selection of the annual sample (31st October)

Lorries exceeding 3.5 tonnes PTAC < Load capacity < 32.6 tonnes.

Road tractors: 5 tonnes PTRA <= maximum permissible weight <= 44.5 tonnes

Special purpose road vehicles such as garbage trucks, fire brigade vehicles, ambulances, cranes, as well as military vehicles and vehicles belonging to government agencies or to owners involved in activities such as driving schools, fairgrounds, etc.

Vehicles that did not have a compulsory vehicle check within 15 months before the sample selection date and that were not first registered during those 15 months

Time unit:

1 week

Time unit of quarter 1 of 2022 included in the survey:

All (13 weeks):

- Q1 weeks 1 to 13
- Q2 weeks 14 to 26
- Q3 weeks 27 to 39
- Q4 weeks 40 to 52

Stratification:

Survey using unequal probabilities sampling with an overrepresentation of road tractors (compared to trucks), of the newest vehicles, of trucks with a high Maximum Permissible Laden Weight (MPLW), or the most powerful road tractors (in the fiscal sense), and of companies in the freight transport sector. The sampling base is separated based on the parity of the company's SIREN number. The refreshed half-sample consists of companies with the same parity as the survey year, while the carried-over half-sample consists of companies with the same parity as the previous year. The sampling rate is determined by stratum, based on the following criteria: vehicle type, age range, vehicle capacity, and company sector (grouped into 9 categories).

The sampling base with the same parity as the sample to be renewed is sorted by the company's sector of activity, by region (NUTS 1), by the company's SIREN number, by a variable combining the gender and age of the vehicle, and finally, by a variable grouping trucks by MPLW and road tractors by fiscal power. Each group of vehicles defined by the company's sector, grouped into 9 categories, and by the categories of the variables 'gender/age' and 'MPLW/fiscal power' is associated with a probability of selection reflecting the sampling rate applied within the stratum. It is the highest for very recent road tractors in the transport sector and the lowest for the oldest trucks outside of the transport sector. The sample is then drawn using unequal probabilities based on the values defined for each class using the systematic sampling method in the sorted sampling base.

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording journey data sent to Eurostat:

Multi stop: Multi-stop journeys are coded as consignments.

Collection/delivery: In the recording of type 3, we describe one basic transport operation with the total weight of goods (A3.2 in table A3) and the total length of the journey (A3.7 in table A3). To calculate the number of tonne-kilometres, we multiply the total weight of goods by the total length of the journey and divide the result by 2, which gives the same result as if the vehicle had been unloading uniformly throughout the journey.

Calculation of weighting factors:

Calmar calibration method is used for calibration and treatment of nonresponse with the use of auxiliary information.

Calmar is a SAS macro program that implements the calibration methods. The program adjusts samples, through reweighting of individuals, using auxiliary information available from a number of variables referred to as calibration variables. The weights produced by this method are used to calibrate the sample on known population totals in the case of quantitative variables and on known category frequencies in the case of qualitative variables.

Calmar is an acronym for CALibration on MARgins, an adjustment technique which adjusts the margins (estimated from a sample) of a contingency table of two or more qualitative variables to the known population margins.

Technical inspections are used as auxiliary information to distinguish, among non-responding vehicles, those within the scope of the survey (having undergone a recent technical inspection within the data collection period) from the others.

The first step of calibration involves weighting the responding and non-responding vehicles for which auxiliary information has determined their inclusion or exclusion from the survey scope in order to reflect the structure of the vehicle fleet.

The calibration margins for the first quarter are provided by the vehicle fleet used as the sampling base during the annual draw, with the reference date being October 31st of the preceding year. The margins for the subsequent quarters are obtained by adding the vehicles that entered the survey scope on the reference dates of the following quarters and subtracting those that exited (January 31st for Q2, April 30th for Q3, and July 31st for Q4).

The variables used for calibration grouping are region (NUTS 1), company activity (9 groups), and a variable that combines the gender and age range of the vehicle. Samples are calibrated in groups of 4 or 5 consecutive weeks belonging to the same month according to the ISO week definition. A week spanning two months is attributed to the month containing its Thursday, following the ISO standard. Three monthly calibrations using quarterly margins (multiplied by a factor of 4 or 5, depending on the number of weeks attributed to the month) are performed to obtain calibration for the 13 consecutive weeks within a survey quarter, still according to the ISO week. These three-monthly calibrations ensure a balanced distribution between months with high or low activity within the same quarter, for example, between July, August, and September in Q3. To achieve this balance between weeks within the same month, for example, in December with reduced activity during the Christmas week, the 'week' variable is also added as a calibration variable. Thus, the sum of the weights of vehicles in the same survey week is equal to the size of the vehicle fleet on the reference date of the quarter. The sum of weights for an ISO month of calibration is equal to 4 or 5 times the size of the vehicle fleet, and for the quarter, it is 13 times that size.

The second step of calibration involves calibrating the sample of responding vehicles within the survey scope according to the estimated counts within the same margin criteria as in the first step. The margins are calculated based on the weights obtained after the first step for both responding and non-responding vehicles within the survey scope.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Average fuel consumption per 100 km.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	415 447	412 459
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	60 490	60 449
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	10 727	11 142
Number of cases classified as non-respondents	18 367	18 188
Number of cases where sample register information was wrong and response could not be used	4 190	3 938
Number of questionnaires used in analysis	27 206	27 181

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Croatia

Organisation responsible for the conducting the survey:

Croatian Bureau of Statistics

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Database of registered road motor vehicles

Name of organisation who maintains the register:

Ministry of Interior

Frequency of update:

Continuously

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Bilateral agreement between the Croatian Bureau of Statistics and the Ministry of the Interior for providing statistical information.

Ministry of Interior transmits part of the register with all motor goods vehicles once a quarter in compliance with the Annual Implementation Plan of Statistical Activities. After receiving the data on registered vehicles, the Department for Programming creates a database with necessary data and then match the data with the Statistical Business Register and other consulting databases in order to take over addresses and other data on vehicles owners and their main activity.

Information obtained from the register:

Database of registered road motor vehicles: registration mark, type of vehicle, body type, main use of vehicle, make of vehicle, construction year, load capacity, maximum permissible weight, name and address of owner of vehicle, number of axles, type of the owner.

Statistical Business Register: main activity of the operator.

Used in stratification: load capacity.

Procedure for reminders:

First reminder for web questionnaire: sent 5 days after the end of reference period.

First reminder for paper questionnaire and the second reminder for web questionnaire: sent 10 days after the end of reference period.

Phone reminder for paper and web questionnaire: 18 days after the end of reference period non-respondents are reminded by phone.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Agricultural vehicles, military and public service vehicles and special purpose vehicle such as truck cranes, fire-engine vehicles, road maintenance vehicles and other special purpose vehicles.

Vehicles with load capacity less than 3.5 tonnes.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample for each stratum was chosen by a systematic random method. The systematic selection made it possible to do the implicit stratification by county and type of owner (tradesmen, enterprises). Moreover, in that way it was also possible to achieve a better geographical dissemination of the sample. The unbiased Horvitz-Thompson assessor was used in the method.

1 – 3.50–4.99 tonnes of load capacity

2 – 5.00–9.99 tonnes of load capacity

3 – 10.00–11.99 tonnes of load capacity

4 – 12.00–14.99 tonnes of load capacity

5 – 15.00 and over tonnes of load capacity

6 – road tractors

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers, swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: In case of carrying more than one type of goods, respondents can record only the type of good with the largest weight.

Multi stop: recorded by vertical stages. In case of carrying more than one type of good, respondents can record only the type of goods with the largest weight.

Collection/delivery: In case of carrying more than one type of goods, respondents can record only the type of good with the largest weight. Collection/delivery journeys are recorded only for national transport.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'}$$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.), scrapped, final or temporally out of operation, not performing transport activity anymore.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables:

Fuel purchased.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	36 491	38 212
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	10 400	10 400
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 926	3 086
Number of cases classified as non-respondents	1 972	1 858
Number of cases where sample register information was wrong and response could not be used	937	897
Number of questionnaires used in analysis	4 565	4 559

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Italy

Organisation responsible for the conducting the survey:

Italian National Statistical Institute (ISTAT)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

National Vehicle Register; Tax Register and Road freight survey register

Name of organisation who maintains the register:

Ministry of Transport, ACI–Automobile Club d'Italia and ISTAT

Frequency of update:

Quarterly, except Road freight survey register yearly (30/09 of the previous year).

Frequency of access to draw the samples:

Once a year

Arrangements for accessing the register:

The owners of the two registers provide a release at the end of each quarter of the year. The Registers updated at 30/09/2022 were used as input of a procedure, whose final output is the 'Road freight survey register' used for the 2023 road freight survey.

Information obtained from the register:

The 'Road freight survey register' contains one record for each road freight transport vehicle (trailers and semi-trailers are not included), identified by their license-plate number. It is the sampling frame of the survey. The register is updated yearly using data in the 'National vehicle register' (technical data concerning the vehicle) and in the 'Tax register' (administrative data concerning the enterprise owning the vehicle), and pieces of information gathered from other sources (National enterprise register, data collected in the previous replies of the survey). The variables gathered from the 'National vehicle register' are: name of the enterprise (user of the vehicle, owned or leased), address of the enterprise, VAT number, license plate number, place in which the plate was registered, load capacity, maximum permissible laden weight, year of first registration, number of axles of the motor vehicle, type of vehicle, type of body, type of transport (hire and reward/own account). The variables gathered from the 'Tax register' are administrative information concerning legal status of the enterprise. The 'Tax register' is also used to complete information about technical data if missing or found not reliable in the 'National vehicle register'.

The variables used in the stratification are:

- Place of registration (18 regions at NUTS2 level; 6 provinces at NUTS3 level);
- Type of transport (hire and reward/own account);
- Load capacity class (5 classes).

Procedure for reminders:

Spot actions for reminders were undertaken in 2011 and 2012. Since 2019 reminders to non-respondents are made regularly (week by week to the sampled units) through the whole reference year.

Starting with 2012, a fine is applied to non-respondents.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Agricultural vehicles, military vehicles, vehicles belonging to central or local public administrations;

All road transport vehicles with a load capacity < 3.5 tonnes;

All road transport vehicles more than 11-year-old (from first registration);

Vehicles with technical characteristics not specifically designed for the transport of goods.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The overall sample size (year 2023) is 47 210 road transport vehicles.

The survey design is based on stratified random sampling.

The sample is stratified according to three criteria: place of first registration, type of transport and load capacity.

Place of first registration: This variable refers to the regions; however, to allow exhaustive studies on traffic within administrative units, the survey manager can design sub-strata at NUTS 3 level; these strata have a 'P' in the first digit.

Region	Code	Region	Code
Piemonte	R001	Marche - Ascoli Piceno	P044
Valle d'Aosta	R002	Lazio	R012
Lombardia	R003	Abruzzo	R013
Veneto	R005	Molise	R014
Friuli Venezia Giulia	R006	Campania	R015
Liguria	R007	Puglia	R016
Emilia Romagna	R008	Basilicata	R017
Toscana	R009	Calabria	R018
Umbria	R010	Sicilia	R019
Marche -Pesaro -Urbino	P041	Sardegna	R020
Marche - Ancona	P042	Provincia di Trento	P022
Marche -Macerata	P043	Provincia di Bolzano	P023

Type of transport

- Hire or reward = T
- Own account = P

Load capacity (5 categories)

- 1 = from 3.5 to 4.9 tonnes

- 2 = from 5 to 9.9 tonnes
- 3 = from 10 to 12.4 tonnes
- 4 = from 12.5 to 14.9 tonnes
- 5 = over 14.9 tonnes

Example: stratum coded R001T1; the vehicles included in this stratum were registered in Piemonte, the owner are enterprises which operates on hire or reward and their load capacity is between 3.5 and 4.9 Tonnes (class 1).

Recording of weight of goods:

Gross-gross weight is reported only for the weight of goods loaded in container or swap body; i.e., containers, swap bodies and pallets are included. Gross weight is collected for other goods.

Recording journey data sent to Eurostat:

Single stop and multi stop: The questionnaire is specifically designed to collect information on three type of goods carried both for type 1 and 2 journeys.

Collection/delivery: In the recording of type 3 journeys only the main type of goods is requested; it is assumed that the type 3 journeys report only national journeys.

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S + S'}$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Data on weekly fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO–possible but difficult to achieve in the short term)
- vehicle empty kilometres (NO)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (NO)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	210 231	220 178
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	45 050	47 210
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	3 945	4 561
Number of cases classified as non-respondents	21 405	21 193
Number of cases where sample register information was wrong and response could not be used	2 543	2 934
Number of questionnaires used in analysis	17 157	18 522

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Cyprus

Organisation responsible for the conducting the survey:

Statistical Service of Cyprus (CYSTAT)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Road Vehicle Register

Name of organisation who maintains the register:

Road Transport Department

Frequency of update:

Yearly

Frequency of access to draw the samples:

Quarterly

Arrangements for accessing the register:

Very good co-operation of the Statistical service with the Road Transport Department (Ministry of Transport, Communications and Works).

Information obtained from the register:

Category of vehicle (Hire or Reward and Own account), gross vehicle weight and load capacity of the vehicle.

Procedure for reminders:

The major part of the survey is conducted by telephone. The response rate is considered as adequate and reaches 95 % of the sample.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles with load capacity less than 3 tonnes.

Time unit:

One Week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

A total of 3 372 vehicles (Lorries and Road Tractors) are surveyed. The sample is distributed in all weeks (65 vehicles per week). The sample consists of 9 categories (strata according to the load capacity of the vehicle and the type of transport (Hire or reward and own account).

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e. containers swap bodies and pallets are included.

Recording of journey data sent to Eurostat:

Single stop: Only the commodity with the highest weight is taken into account.

Multi stop: For the calculation of tonnes-kilometres the sum of weigh received plus the weight delivered multiplied by the distance covered is divided by 1 500.

Collection/delivery: For the calculation of tonnes-kilometres the sum of weigh received plus the weight delivered multiplied by the distance covered is divided by 2 000.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{Q}$$

N = number of vehicles in the register (in a stratum)

Q = number of questionnaires completed

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	14 926	15 321
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	3 372	3 372
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 042	747
Number of cases classified as non-respondents	479	514
Number of cases where sample register information was wrong and response could not be used	512	768
Number of questionnaires used in analysis	1 339	1 343

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Latvia

Organisation responsible for the conducting the survey:

Central Statistical Bureau (CSB)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

1) Register of road transport vehicles

2) Register of vehicles

Name of organisation who maintains the register:

1) Road Traffic Safety Directorate–Register of vehicles

2) Road Transport Administration–Register of road transport vehicles

Frequency of update:

Monthly

Frequency of access to draw the samples:

Once a month

Arrangements for accessing the register:

CSB has access to extract information from the Register of vehicles. This part of the Register contains information on transport vehicles which are owned by natural or legal persons and which at the moment of sample formation had passed the yearly technical inspection and could be legally operated.

CSB has access to extract information from the Register of road transport vehicles. This part of the Register contains information on transport vehicles, which has license to carry out national and international transport for hire or reward.

Information obtained from the register:

1) Made; model; registration number; vehicle ID number; legal (enterprise) or private person; enterprise VAT number or personal code; enterprise actual NACE code; self-weight, load capacity; road tractor or not; body type; year of production; name of owner (legal i.e., enterprise or private person); address of owner; mark about leasing and address of leaseholder.

2) Authorisation to carry out transport for dangerous goods.

3) Authorisation to carry out national and international transport for hire or reward.

Used for stratification:

- carrying capacity
- allowed to carry out commercial shipments
- allowed to carry out international shipments
- has ADR
- year of production of vehicle
- name of owner or holder

Procedure for reminders:

First reminder: 19 days after the survey week another copy of the questionnaire is sent to the respondent.

Second reminder: After 4 weeks, another reminder letter is sent to the respondent.

The response rate for 2023:

Q1 71.9%

Q2 67.9%

Q3 66.9%

Q4 64.5%

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Special purpose vehicles such as truck cranes, fire-fighters vehicles, platform lorries, road maintenance vehicles, border guards' vehicles and other special purpose vehicles.

Vehicles older than 25 years.

Vehicles with load capacity less than 3.5 tonnes.

Starting with 2017, special concrete mixers are included in the survey in the list of special lorries.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample for one month (5 weeks within the first month of each quarter and 4 weeks within the second and third month of each quarter) is obtained using a single stage stratified systematic sampling.

The vehicles selected in sample for one month will be not sampled for 6, 9 or 12 sequence months, in order to reduce the workload for respondents.

For the estimation of averages, totals, ratios and percentages the so-called Horvitz-Thompson estimator is used. It means that the probability for each vehicle to be included into the sample must be calculated.

For every survey month the inclusion probability of a vehicle in the sample is calculated as a ratio between the number of vehicles that were included in the sample and did respond and the total number of vehicles in the stratum, i.e., the number of vehicles that had valid technical examination certificates in the survey month. This means that within each stratum the responding vehicles represent the non-responding ones of the same stratum, too.

The estimates of totals and means are obtained first for each survey month and each stratum separately. The estimates of population totals and population means (or domain totals and domain means) are obtained by summing up or calculating the weighted sum over all strata and over all survey months of the corresponding strata estimates.

Strata	Load capacity	Allowed to carry out commercial shipments	Allowed to carry out international shipments	Has ADR([1])	"Year of production of vehicles (in 2023)"	Owner or Holder
1	3.5t < cap. <=5t	No	All	All	1998-2023	Legal
2	3.5t < cap. <=5t	Yes	All	All	1998-2023	Legal
3	5t < cap. <=10t	No	All	All	1998-2007	Legal
4	5t < cap. <=10t	No	All	All	2008-20013	Legal
5	5t < cap. <=10t	No	All	All	2014-2023	Legal
6	5t < cap. <=10t	Yes	All	All	1998-2007	Legal
7	5t < cap. <=10t	Yes	All	All	2008-2013	Legal
8	5t < cap. <=10t	Yes	All	All	2014-2023	Legal
9	cap.>10t	No	No	All	1998-2007	Legal
10	cap.>10t	No	No	All	2008-2023	Legal
11	cap.>10t	No	Yes	All	1998-2007	Legal
12	cap.>10t	No	Yes	All	2008-2023	Legal
13	cap.>10t	Yes	No	All	1998-2007	Legal
14	cap.>10t	Yes	No	All	2008-2013	Legal
15	cap.>10t	Yes	No	All	2014-2023	Legal
16	cap.>10t	Yes	Yes	All	1998-2007	Legal
17	cap.>10t	Yes	Yes	All	2008-2013	Legal
18	cap.>10t	Yes	Yes	All	2014-2023	Legal
19	the trucks	All	All	Yes	1998-2023	Legal
20	the trucks	No	No	No	1998-2013	Legal
21	the trucks	No	No	No	2014-2023	Legal
22	the trucks	No	Yes	No	1998-2023	Legal
23	the trucks	Yes	No	No	1998-2007	Legal
24	the trucks	Yes	No	No	2008-2023	Legal
25	the trucks	Yes	Yes	No	1998-2007	Legal
26	the trucks	Yes	Yes	No	2007-2010	Legal
27	the trucks	Yes	Yes	No	2011-2016	Legal
28	the trucks	Yes	Yes	No	2017-2019	Legal
29	the trucks	Yes	Yes	No	2020-2021	Legal
30	the trucks	Yes	Yes	No	2022-2023	Legal
40	3.5t < cap.	All	All	All	1998-2023	Private

([1]) European Agreement concerning the International Carriage of Dangerous Goods by Road

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

The questionnaire has 2 parts: one part for journeys with 1 to 4 stops and other for journeys with 5 and more stops.

Single journey is journey when goods are loaded and then unloaded. Multi stop journey is journey, when goods are loaded then have some stops to load/unload goods and at the end all goods are unloaded. Each stop is recorded separately.

If journey has 5 or more stops or collection/delivery journeys they are recorded as one. Such journeys have 5 types:

- 5 and more stops with goods are only loaded
- 5 and more stops with goods are only unloaded
- Number of stops with goods are loaded are equal to number of stops with goods are loaded
- Number of stops with goods are loaded are more than number of stops with goods are loaded
- Number of stops with goods are loaded are less than number of stops with goods are loaded

Depending on the number of stops, the type of journey is determined and tonnes and tkm are calculated based on the type of journey, respectively.

Estimation of maximum permissible laden weight:

Maximum permissible laden weight is estimated by adding load capacity and basic weight.

Calculation of weighting factors:

$$\text{Weighting factor} = \frac{M}{S + S'}$$

M = mean of population between the beginning and the end of the reference month.

S = number of questionnaires used in analysis (in a stratum, during the reference period).

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.).

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	22 261	22 666
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	6 240	6 240
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 302	1 386
Number of cases classified as non-respondents	2 015	2 008
Number of cases where sample register information was wrong and response could not be used	111	93
Number of questionnaires used in analysis	2 812	2 753

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Lithuania

Organisation responsible for the conducting the survey:

Statistics Lithuania

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Register of Road Vehicles of the Republic of Lithuania

Name of organisation who maintains the register:

State enterprise 'Regitra' Lithuanian Association of Roadworthiness

Frequency of update:

Continuously

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Each quarter at fixed dates, information is received from State Enterprise 'Regitra'.

Information obtained from the register:

Registration number; type of road vehicle (lorry/road tractors); enterprise code; year of production; name of private operators; name of business operators; address; load capacity; maximum permissible weight of vehicle.

Load capacity of vehicle is used for stratification.

Procedure for reminders:

The first reminder is sent 9 days after the survey week by e-mail.

The second reminder is sent 16 days after the survey week by e-mail.

The third reminder is sent 23 days after the survey week by e-mail.

An adequate sampling frame is provided

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

- Special purpose road vehicles;
- Goods road vehicles with maximum permissible weight of less than 6 tonnes in case of a single motor vehicle
- Vehicles which are not used for goods carriage
- Goods road vehicle older than 25 years

Goods road vehicle which are not covered by survey: Vehicles with less than 6 tonnes maximum permissible weight.

For vehicles less than 6 tonnes maximum permissible weight, estimations are carried out for the vehicle kilometres.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample for one quarter is obtained using a sample in each stratum. All goods transport vehicles are distributed in 15 strata.

Road goods vehicles are distributed in the following way:

Strata code	Goods vehicles	Load capacity (kg)	Form of ownership
25	Lorries	3500 ≥	Vehicles with licences for carriage of dangerous goods
5	Road tractors	not divided	Vehicles with licences for carriage of dangerous goods
23	Lorries	3500 - 9999	Vehicles with licences for international journeys
8	Lorries	10000 - 14999	Vehicles with licences for international journeys
9	Lorries	15000 +	Vehicles with licences for international journeys
10	Road tractors	not divided	Vehicles with licences for international journeys
24	Lorries	3500 - 9999	Vehicles of enterprises with activity NACE Rev.2 49.41
13	Lorries	10000 - 14999	Vehicles of enterprises with activity NACE Rev.2 49.41
14	Lorries	15000 +	Vehicles of enterprises with activity NACE Rev.2 49.41
15	Road tractors	not divided	Vehicles of enterprises with activity NACE Rev.2 49.41
16	Lorries	3500 - 5999	Vehicles with licences for national journeys and other
17	Lorries	6000 - 9999	Vehicles with licences for national journeys and other
18	Lorries	10000 - 14999	Vehicles with licences for national journeys and other
19	Lorries	15000 +	Vehicles with licences for national journeys and other
20	Road tractors	not divided	Vehicles with licences for national journeys and other

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop and multi stop: Only the commodity with highest weight is taken into account.

Other variables: Currently only 5 countries are reported as countries crossed in transit (variable A2.7) as this is the maximum limit, although Lithuanian trucks can cross more than 5 transit countries.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'}$$

N= number of vehicles in the register (in a stratum)

S= number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.), sold, scrapped, leased, with load capacity too low.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	64 132	69 442
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	12 911	12 892
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 696	2 733
Number of cases classified as non-respondents	3 385	2 433
Number of cases where sample register information was wrong and response could not be used	1 136	1 800
Number of questionnaires used in analysis	5 694	5 926

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Luxembourg

Organisation responsible for the conducting the survey:

National Statistical Institute (STATEC)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Parc des véhicules automoteurs

Name of organisation who maintains the register:

Centre des technologies de l'information de l'Etat (CTIE)

Frequency of update:

Daily update, but monthly transmission of an extract to STATEC.

Frequency of access to draw the samples:

At present, the samples are drawn at the beginning of the year, with two supplementary samples drawn in July and November.

Arrangements for accessing the register:

The first days of each month, the CTIE is transmitting an extract of the register to STATEC.

Information obtained from the register:

In the data files transmitted by the CTIE, there are technical specifications for all kind of automotive vehicles. At present, the CTIE is drawing the samples without any stratification. STATEC plans to use stratified samples. The criteria for stratification are not yet fixed.

Procedure for reminders:

In general, the questionnaires have to be returned to STATEC within 5 days after the end of the reference week. At present, the enterprises receive, if necessary, 1-3 reminders per questionnaire. A scheduled system, sending out automatically reminders according to intervals to be fixed by STATEC is implemented. In general, the response rate is good.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

According to the EU road freight transport statistics regulation, STATEC excludes:

- lorries < 3.5 tonnes load capacity
- goods road transport vehicles whose authorised weight or dimensions exceed the limits normally permitted in the concerned EU countries;
- agricultural vehicles, military vehicles and vehicles belonging to central or local public administrations, vehicles not destined to the transport of goods, with the exception of goods road transport vehicles belonging to public undertakings, and in particular railway undertakings. In addition, several types of vehicles are also excluded, such as those used for breakdown services.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

7 weeks

Stratification: There is no stratification. The same weighting factor is used for all vehicles for the whole quarter.

Recording of weight of goods:

Enterprises should indicate the weight of transported goods without packaging.

Recording of journey data sent to Eurostat:

Single stop, multi stop and collection /delivery: It is only allowed to indicate the carriage of one commodity per journey. If there are two or more commodities transported, the most important in terms of weight must be indicated.

Estimation of maximum permissible laden weight:

In the data files on the automotive vehicles, the maximum permissible laden weight on the different axes is indicated. The enterprises have to indicate the number of axles of the vehicle, the trailer or the semi-trailer. These indications allow calculating the total maximum permissible laden weight.

Calculation of weighting factors:

Weighting factor $= \dfrac{w \times v}{r + e}$

w = number of calendar weeks in a quarter

v = quarterly average number of tractive vehicles in the register used for goods carriage

r = quarterly recorded questionnaires

e = quarterly unused questionnaires (no activity or unusable indications)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

STATEC does not collect any information on the type of fuel used or the fuel consumption. Nevertheless, in the vehicle register there is a variable on the type of fuel used: in 2014, more than 98 % of the transport vehicles use diesel.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	9 700	9 678
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 806	8 556
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	930	0
Number of cases classified as non-respondents	1 129	854
Number of cases where sample register information was wrong and response could not be used	970	1 982
Number of questionnaires used in analysis	5 777	5 720

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Hungary

Organisation responsible for the conducting the survey:

Hungarian Central Statistical Office (HCSO)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

National stock of goods carriage motor vehicles

Name of organisation who maintains the register:

Ministry of Interior, Deputy State Secretariat Responsible for Keeping Registers

Frequency of update:

Twice a year

Frequency of access to draw the samples:

Once a year

Arrangements for accessing the register:

Agreement between the Hungarian Central Statistical Office and the Ministry of Interior, Deputy State Secretariat Responsible for Keeping Registers based on the Government-decree of the National Statistical Data-collecting Programme.

Information obtained from the register:

Name, address, legal status (corporation or individuals), load capacity, vehicle type and age of the vehicle.

Used in stratification: Legal status, load capacity, vehicle type and location.

Procedure for reminders:

First reminder: 8 days after the end of the reference period by post.

The non-respondents must answer within 5 days.

HCSO has the right to take steps to impose penalty in case of notorious non responds. The Data Collection Directory (responsible for data recording) has already taken a few steps to impose penalty in regions where the non-response rate was high. The non-response rate is still the same but more work is behind. The willingness to answer is getting worse. The willingness may improve in case the time period for answering will be halved in a reference year due to change in sample frequency.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Special-purpose vehicles: agricultural vehicles, military vehicles and vehicles belonging to central or local public administrations.

Lorries with less than 3.5 tonnes load capacity.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample is stratified according to:

1st criteria: vehicle operator's legal status (corporation or individual)

2nd criteria: load capacity, 4 categories: load capacity between 3.5–5 tonnes, 5–10 tonnes, above 10 tonnes and road tractors as a separate stratum

After this stratification we insure the required representation of the sample.

As a 3rd criterion, at data grossing-up, the 20 countries are taken into consideration.

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e., containers swap bodies and pallets are included.

Recording of journey data sent to Eurostat:

Single stop: If more than one goods commodity is carried, only the commodity with the highest weight is taken into account.

Multi stop: multi-stop journeys are coded by vertical stages. In the calculation for the multi stop journeys, the total weight is the sum of weights loaded at each stop.

Collection/delivery: Journeys with less than 5 stops are not considered as collection/delivery journeys.

Estimation of maximum permissible laden weight:

Maximum permissible laden weight is available.

Calculation of weighting factors:

The main formula for the grossing (calculated for each of the 160 strata) is as follows:

$$\text{Weighting factor} = 13 \times (1 + C)\frac{N}{S}$$

N = total stratum population,

S = number of vehicles selected for initial sample and questionnaires despatched to vehicles owner.

Since 2014, a correction factor (C) has been calculated as proposed in the reference manual.

$$C = \text{correction factor calculated as follows:} \frac{0{,}5 \times n3 + n4}{n1 + n2}$$

n1= the number of vehicles (respondents) that could be used for analysis (including those who had any activity during the sampled period and those where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock.)

n2 = respondents whose performance is 0 because the vehicle was withdrawn from circulation;

n3 = non respondents – no information; wrong address; the vehicle does not belong to the addressed person (register fault)

n4 = vehicle has been sold, leased, performs somewhere else

The non-respondents were present in the calculation system in different ways than recommended. The multiplier proposed in the reference manual is 0.5 because the probability whether a vehicle performs or not is 50 percent. In order to prolong

the effect, the correction factor was adjusted to the common calculation system during the time period of 2011–2013. The multiplier was 0.8 till 2010, 0.7 in 2011, and 0.6 in 2012 and 2013.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and fuel purchased.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	83 562	84 259
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	48 512	47 768
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	9 446	10 321
Number of cases classified as non-respondents	10 595	10 074
Number of cases where sample register information was wrong and response could not be used	6 967	7 061
Number of questionnaires used in analysis	21 504	20 312

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Malta

Organisation responsible for the conducting the survey:

National Statistics Office

The input below is based on information provided in the first quarter of 2004. Regulation (EU) No 70/2012 does not apply to Malta, as long as the number of Maltese-registered goods road transport vehicles licensed to engage in international transport does not exceed 400 vehicles. This is the case since 2004 and, therefore, the country does not report any data

Sampling register used for the survey

Name of register:

Vehicle registration database

Name of organisation who maintains the register:

Department of Licensing and Testing

Frequency of update:

Continuously

Frequency of access to draw the samples:

Quarterly

Arrangements for accessing the register:

The NSO has an agreement with the Malta Transport Authority within whose portfolio the Licensing and Testing Directorate resides, through which the latter give access to the data in their register. Indeed, the MTA has recently agreed to provide the NSO with an electronic copy, with selected variables, of this register.

Information obtained from the register:

Registration number, name and surname of operator and his identity number, address, make, model, body type and gross vehicle weight.

Procedure for reminders:

Individual interviewers carry out the survey. There is no standard routine for reminders whilst the response rate was 67.6 % for the domestic survey and 32.7 % for the international operators.

Sampling methodology

Statistical unit:

Tractive vehicle and transport firm

Types of units excluded:

International transport: no exclusions are possible because the population is very small (70 trucks). Local transport of goods by road: the survey is carried out in accordance with the requirements of the Regulation.

Time unit:

1 weekday to which the statistical unit is assigned and both weekend days.

Time units of quarter 1 of 2004 included in the survey:

Zero

Stratification:

The overall sample size is 2 080 trucks, which are distributed 40 per week. The total number of 5–9.9 tonnage trucks sampled is 780, which amount to 15 per week (or 3 per weekday). The total number of 10+ tonnage trucks sampled is 1 300, which amount to 25 per week (or 5 per weekday). The idea is to allocate to each day of the week 8 trucks in all, and ask the individual to answer for that particular day to which he is assigned together with both weekend days for that week (i.e., Saturday and Sunday). Each address is tagged with a week number (running from 1 to 52) and a day number (running from 1 to 5, 1 being Monday to 5 being Friday).

Additional variables collected compared to the legal requirements:

Environmental impact related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (NO)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (NO)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	-	-
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	-	-
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	-	-
Number of cases classified as non-respondents	-	-
Number of cases where sample register information was wrong and response could not be used	-	-
Number of questionnaires used in analysis	-	-

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Netherlands

Organisation responsible for the conducting the survey:

Statistics Netherlands (Centraal Bureau voor de Statistiek CBS)

(Based on information referring to the first quarter of 2022 no methodological change for year 2022)

Sampling register used for the survey

Name of register:

a)   National vehicle Register of RDW (*Centrum voor voertuigtechniek en informatie*)

For the stratification of the sample also the following registers are also used:

b)   National Business Register (CBS/ Chamber of Commerce)

c)   Lease Registers from the Tax Authorities

Name of organisation who maintains the register:

Statistics Netherlands

Frequency of update:

Once a quarter

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

The data are forwarded by RDW to Statistics Netherlands up to one month in advance of the statistical period (quarter).

Information obtained from the register:

Information obtained among others from the register: licence number, brand name, loading capacity of the vehicle, type of motor vehicle, age of the vehicle, empty weight of the vehicle, fuel type, engine type (EURO norm), KW class of engine, enterprise number.

Information used in the stratification of the sample: to determine the type of transport (own account or hire and reward) the enterprise number belonging to the licence number in the National Vehicle Register of RDW is linked to the enterprise number of the National Business register. Furthermore, the NACE is used to categorise the vehicles to the enterprises that own the vehicle to minimize the sample-variance per stratum.

Further the following register variables are used for the stratification: loading capacity, type of vehicles and age of the vehicle.

Procedure for reminders:

There is a standard routine for reminders:

- immediately after the reported time period, the non-respondents receive a first written reminder.
- 3 weeks after the reported time period, the non-respondents receive a second written reminder.
- 5 weeks after the reported time period, the most important non-respondents, based on the number of vehicles, receive a reminder performed by telephone.

The response rate is adequate.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles not used for goods transport on public roads and passenger vehicles, such as Buses and campers.

Vehicles with a Maximum Permissible Weight <= 3 500 kg.

Vehicles older than 25 years.

Statistics Netherlands has introduced a new survey to cover vehicles with a Maximum Permissible weight <= 3500 kg. The results of this group of vehicles in 2016: transported weight 64 million tonnes of goods (equipment excluded) and 16.5 billion kilometres.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample is drawn at random within 74 strata. The stratification variables used are:

- Type of transport (Own account or hire and reward) based on the National Business register
- Type of vehicle
- Loading capacity
- Age of vehicle

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity[1]	Age of vehicle	Nace[1]
1	.23100000	2014	Own account	Lorry	A	1,2,3,4	All vehicles	Fleet under 30 vehicles
2	.23100000	2014	Own account	Lorry	B	1,2	All vehicles	Fleet under 30 vehicles
3	.23100000	2014	Own account	Lorry	B	3,4	All vehicles	Fleet under 30 vehicles
4	.17500000	2014	Own account	Lorry	C	1,2	All vehicles	Fleet under 30 vehicles
5	.17500000	2014	Own account	Lorry	C	3,4	All vehicles	Fleet under 30 vehicles
6	.23100000	2014	Own account	Lorry	D	1,2	Less or equal to 4 years	Fleet under 30 vehicles
7	.23310000	2014	Own account	Lorry	D	3,4	Less or equal to 4 years	Fleet under 30 vehicles
8	.15750000	2014	Own account	Lorry	D	1,2	4 years or older	Fleet under 30 vehicles
9	.17500000	2014	Own account	Lorry	D	3,4	4 years or older	Fleet under 30 vehicles

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity([1])	Age of vehicle	Nace([1])
10	.23100000	2014	Own account	Lorry	E	1,2	All vehicles	Fleet under 30 vehicles
11	.23100000	2014	Own account	Lorry	E	3,4	All vehicles	Fleet under 30 vehicles
12	.23100000	2014	Own account	Lorry	F	1,2,3,4	Less or equal to 4 years	Fleet under 30 vehicles
13	.17500000	2014	Own account	Lorry	F	1,2	4 years or older	Fleet under 30 vehicles
14	.17500000	2014	Own account	Lorry	F	3,4	4 years or older	Fleet under 30 vehicles
15	.23100000	2014	Own account	Lorry	G	1,2	All vehicles	Fleet under 30 vehicles
16	.23100000	2014	Own account	Lorry	G	3,4	All vehicles	Fleet under 30 vehicles
17	.31500000	2014	Own account	Road tractor	A-G	1,2,3	All vehicles	Fleet under 30 vehicles
18	.31500000	2014	Own account	Road tractor	A	4	All vehicles	Fleet under 30 vehicles
19	.31500000	2014	Own account	Road tractor	B	4	All vehicles	Fleet under 30 vehicles
20	.31500000	2014	Own account	Road tractor	C	4	All vehicles	Fleet under 30 vehicles
21	.31500000	2014	Own account	Road tractor	D	4	Less or equal to 4 years	Fleet under 30 vehicles
22	.31500000	2014	Own account	Road tractor	D	4	4 years or older	Fleet under 30 vehicles
23	.31500000	2014	Own account	Road tractor	E	4	Less or equal to 4 years	Fleet under 30 vehicles
24	.31500000	2014	Own account	Road tractor	E	4	4 years or older	Fleet under 30 vehicles
25	.31500000	2014	Own account	Road tractor	F	4	Less or equal to 4 years	Fleet under 30 vehicles
26	.31500000	2014	Own account	Road tractor	F	4	4 years or older	Fleet under 30 vehicles
27	.31500000	2014	Own account	Road tractor	G	4	All vehicles	Fleet under 30 vehicles
28	.17500000	2014	Own account	Special vehicle	NULL	2	All vehicles	Fleet under 30 vehicles
29	.23100000	2014	Own account	Special vehicle	NULL	3,4	All vehicles	Fleet under 30 vehicles
30	.31500000	2014	Hire and reward	Lorry	NULL	1,2	All vehicles	Fleet under 30 vehicles

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity([1])	Age of vehicle	Nace([1])
31	.31500000	2014	Hire and reward	Lorry	NULL	3	Less or equal to 4 years	Fleet under 30 vehicles
32	.31500000	2014	Hire and reward	Lorry	NULL	4	Less or equal to 4 years	Fleet under 30 vehicles
33	.23100000	2014	Hire and reward	Lorry	NULL	3	4 years or older	Fleet under 30 vehicles
34	.23100000	2014	Hire and reward	Lorry	NULL	4	4 years or older	Fleet under 30 vehicles
35	.31500000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	Less or equal to 4 years	Fleet under 30 vehicles
36	.23100000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	4 years or older	Fleet under 30 vehicles
37	.07000000	2014	Hire and reward	Special vehicle	NULL	2,3,4	All vehicles	Fleet under 30 vehicles
38	.07425000	2014	Own account	Lorry	A	1,2,3,4	All vehicles	Fleet 30 or more vehlices
39	.07425000	2014	Own account	Lorry	B	1,2	All vehicles	Fleet 30 or more vehlices
40	.07425000	2014	Own account	Lorry	B	3,4	All vehicles	Fleet 30 or more vehlices
41	.05625000	2014	Own account	Lorry	C	1,2	All vehicles	Fleet 30 or more vehlices
42	.05625000	2014	Own account	Lorry	C	3,4	All vehicles	Fleet 30 or more vehlices
43	.07425000	2014	Own account	Lorry	D	1,2	Less or equal to 4 years	Fleet 30 or more vehlices
44	.07492500	2014	Own account	Lorry	D	3,4	Less or equal to 4 years	Fleet 30 or more vehlices
45	.05062500	2014	Own account	Lorry	D	1,2	4 years or older	Fleet 30 or more vehlices
46	.05625000	2014	Own account	Lorry	D	3,4	4 years or older	Fleet 30 or more vehlices
47	.07425000	2014	Own account	Lorry	E	1,2	All vehicles	Fleet 30 or more vehlices

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity(¹)	Age of vehicle	Nace(¹)
48	.07425000	2014	Own account	Lorry	E	3,4	All vehicles	Fleet 30 or more vehlices
49	.07425000	2014	Own account	Lorry	F	1,2,3,4	Less or equal to 4 years	Fleet 30 or more vehlices
50	.05625000	2014	Own account	Lorry	F	1,2	4 years or older	Fleet 30 or more vehlices
51	.05625000	2014	Own account	Lorry	F	3,4	4 years or older	Fleet 30 or more vehlices
52	.07425000	2014	Own account	Lorry	G	1,2	All vehicles	Fleet 30 or more vehlices
53	.07425000	2014	Own account	Lorry	G	3,4	All vehicles	Fleet 30 or more vehlices
54	.10125000	2014	Own account	Road tractor	A-G	1,2,3	All vehicles	Fleet 30 or more vehlices
55	.10125000	2014	Own account	Road tractor	A	4	All vehicles	Fleet 30 or more vehlices
56	.10125000	2014	Own account	Road tractor	B	4	All vehicles	Fleet 30 or more vehlices
57	.10125000	2014	Own account	Road tractor	C	4	All vehicles	Fleet 30 or more vehlices
58	.10125000	2014	Own account	Road tractor	D	4	Less or equal to 4 years	Fleet 30 or more vehlices
59	.10125000	2014	Own account	Road tractor	D	4	4 years or older	Fleet 30 or more vehlices
60	.10125000	2014	Own account	Road tractor	E	4	Less or equal to 4 years	Fleet 30 or more vehlices
61	.10125000	2014	Own account	Road tractor	E	4	4 years or older	Fleet 30 or more vehlices

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity([1])	Age of vehicle	Nace([1])
62	.10125000	2014	Own account	Road tractor	F	4	Less or equal to 4 years	Fleet 30 or more vehlices
63	.10125000	2014	Own account	Road tractor	F	4	4 years or older	Fleet 30 or more vehlices
64	.10125000	2014	Own account	Road tractor	G	4	All vehicles	Fleet 30 or more vehlices
65	.05625000	2014	Own account	Special vehicle	NULL	2	All vehicles	Fleet 30 or more vehlices
66	.07425000	2014	Own account	Special vehicle	NULL	3,4	All vehicles	Fleet 30 or more vehlices
67	.10125000	2014	Hire and reward	Lorry	NULL	1,2	All vehicles	Fleet 30 or more vehlices
68	.10125000	2014	Hire and reward	Lorry	NULL	3	Less or equal to 4 years	Fleet 30 or more vehlices
69	.10125000	2014	Hire and reward	Lorry	NULL	4	Less or equal to 4 years	Fleet 30 or more vehlices
70	.07425000	2014	Hire and reward	Lorry	NULL	3	4 years or older	Fleet 30 or more vehlices
71	.07425000	2014	Hire and reward	Lorry	NULL	4	4 years or older	Fleet 30 or more vehlices
72	.10125000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	Less or equal to 4 years	Fleet 30 or more vehlices
73	.07425000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	4 years or older	Fleet 30 or more vehlices
74	.02250000	2014	Hire and reward	Special vehicle	NULL	2,3,4	All vehicles	Fleet 30 or more vehlices

([1]) 1. Less than 2 tonnes, 2. 2 -3,5 tonnes, 3. 3,5-15 tonnes, 4. 15 tonnes or more

Nace stratum	Description
A	Agriculture, hunting, forestry, fishing
A	Mining and quarrying
B	Manufacture of food products, beverages and tobacco
B	Manufacture of textiles and textile products, manufacture of leather and leather products, Manufacture of rubber and plastic products
B	Manufacture of wood and wood products
B	manufacture of pulp, paper and paper products
B	Publishing, printing and reproduction of recorded media
B	Manufacture of coke, refined petroleum products and nuclear fuel, Manufacture pf chemicals, chemical products and man-made fibres
B	Manufacture of other non-metallic mineral products
B	Manufacture of basic metals and fabricated metal products, Manufacture of machinery and equipment n.e.c.,
B	Manufacture of electrical and optical equipment, Manufacture of transport equipment
B	Manufacturing n.e.c.
B	Electricity, gas and water supply
C	Construction
D	Wholesale trade and commission trade, except of motor vehicles and motorcycles
D	Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
D	Hotels and restaurants
E	Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
E	Transport, storage and communication (excl. Freight transport by road)
F	Financial intermediation, Real estate, renting and business activities
F	Education, Health and social work, Other community, social and personal service activities
G	Nace classication unknown

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e., containers swap bodies and pallets are included.

Recording journey data sent to Eurostat:

Single stop: The respondent can record only one type of goods.

Collection/delivery: Tonne-kilometres = Tonnes * Distance / 2.

Other variables: Unladen journeys are assumed to be associated with laden journeys.

Calculation of weighting factors:

Weighting factor $= 13 \times 0.5 \times \dfrac{N + N'}{S + S'}$

N = number of vehicles in the register (per stratum) (average of the current quarter)

N = number of vehicles in the register (per stratum) (average of the next quarter)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.).

To correct for changes in the population during the quarter, two consecutive versions of the vehicle register are used (N and N').

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and average fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	138 892	140 398
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	39 124	39 501
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	6 070	6 610
Number of cases classified as non-respondents	6 421	6 125
Number of cases where sample register information was wrong and response could not be used	2 425	2 737
Number of questionnaires used in analysis	24 208	24 029

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Austria

Organisation responsible for the conducting the survey:

Statistics Austria

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Vehicle-Register (VR) and Statistical Business Register (URS)

Name of organisation who maintains the register:

Vehicle Register: Austrian motor vehicle liability insurance

Business Register: Bundesanstalt Statistik Österreich / Statistics Austria

Frequency of update:

Vehicle Register: Continuously

Business Register: Continuously

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Access to the vehicle register of the Austrian motor vehicle liability insurance is regulated in §40b Abs. 10 and §47 Abs. 1a of the Kraftfahrgesetz 1967.

The vehicle liability insurance has to grant Statistics Austria electronic access to all data necessary for the compilation of statistics on the national vehicle inventory.

Information obtained from the register:

Vehicle Register: Bundesland (Federal State), registration office, vehicle registration number, vehicle identification number, registration date, type of vehicle, empty weight, load capacity, maximum permissible weight, link to URS.

Business Register: Enterprise number (link to VR), name of enterprise, address, NACE.

Stratum: Load capacity class (derived from total load capacity of all vehicles registered at a local unit), transport type ("transport on own account / for hire or reward ", derived from NACE), maximum permissible gross vehicle weight, geographic region derived from address.

Procedure for reminders:

First reminder: 3 weeks after the surveyed week

Second reminder: 5 weeks after the surveyed week

Penalty procedure: starts 7 weeks after the second reminder

The response rate is adequate.

The survey is obligatory, and respondents that do not complete the survey have to face legal fines.

Sampling methodology

Statistical unit:

Tractive vehicle, Local unit

Types of units excluded:

Excluded are local units with NACE 8425 (Fire brigade), 8553 (Driving schools), 9700 and 98xx (Private household), 9499 (Other membership organisations not elsewhere classified) and 9900 (Exterritorial organisations and bodies).

Agricultural vehicles, vehicles of regional administrative bodies and foreign organisations and military vehicles.

Vehicles with load capacity less than 2 tonnes.

Vehicles older than 30 years.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All of quarter 1

Stratification:

The stratification of the survey is based on groups based on load capacity class of the local unit at which the vehicle is registered, transport type, maximum permissible weight and geographic region.

Stratum code	Load capacity class	Transport type	Maximum permissible weight	Region
1051	1	0	All vehicles	AT
2112	2	1	<=12.5t	ATeV
2113	2	1	<=12.5t	V
2132	2	1	>12.5t	ATeV
2133	2	1	>12.5t	V
2161	2	1	Road tractors	AT
2222	2	2	<=7.5t	ATeV
2223	2	2	<=7.5t	V
2242	2	2	>7.5t and <=12.5t	ATeV
2243	2	2	>7.5t and <=12.5t	V
2232	2	2	>12.5t	ATeV
2233	2	2	>12.5t	V
2261	2	2	Road tractors	AT
3112	3	1	<=12.5t	ATeV
3113	3	1	<=12.5t	V
3132	3	1	>12.5t	ATeV
3133	3	1	>12.5t	V
3161	3	1	Road tractors	AT
3222	3	2	<=7.5t	ATeV
3223	3	2	<=7.5t	V

Stratum code	Load capacity class	Transport type	Maximum permissible weight	Region
3242	3	2	>7.5t and <=12.5t	ATeV
3243	3	2	>7.5t and <=12.5t	V
3232	3	2	>12.5t	ATeV
3233	3	2	>12.5t	V
3261	3	2	Road tractors	AT

Principle behind the numerical encoding of the Strata:

Load capacity class of local unit (total load capacity registered at a local unit, including vehicles and trailers):

   1: <15 tonnes load capacity

   2: 15-150 tonnes load capacity

   3: >150 tonnes load capacity

Transport type:

   0: any transport type

   1: transport for hire or reward

   2: transport on own account

Maximum permissible weight of vehicles:

   <= 12.5 tonnes (only for transport on own account)

   <= 7.5 tonnes (only for hire or reward)

between 7.5 and 12.5 tonnes (only for hire or reward)

   > 12.5 tonnes

   5: All vehicles

   6: Road tractors

Geographic region:

   AT: Austria

   ATeV: Austria excluding Vienna

   V: Vienna

Recording of weight of goods:

A2: gross-gross-weight

A3: for containers (not swap bodies or pallets) a separate record for the container (with tare weight of the container, type of goods = 16) and the load (gross-weight) is produced. For swap bodies and pallets, the gross-gross weight is reported directly.

Recording journey data sent to Eurostat:

Single stop: Only the most common type of good is recorded for a single stop journey.

For multi stop journeys it is assumed that either only loading or unloading occurs. It is not possible to report mixed journeys on which both–loading and unloading–occurs. For multi-stop journeys with equal or less than 5 stops, each loading/ unloading operation is recorded separately.

1

For multi-stop journeys with more than 5 stops, the simplified reporting recommended by the manual is used–total weight, total distance, number of stops.

Estimation of maximum permissible laden weight:

Exact data is available.

Calculation of weighting factors:

For calculating the weighting factor w_{hz} the year is subdivided into 12 periods (z). Each period contains k weeks, where k is 4, except for each third period where it is 5. The weighting factor w_{hz} in each stratum h is calculated as k times the quotient of the number of all vehicles F_h of stratum h divided by the number of responding vehicles f_{hz} in period z.

$$w_{hz} = k \times \frac{F_h}{f_{hz}}$$

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (PARTIALY – Only RORO with ship)
- place of unloading, if any, of the road transport vehicle from another means of transport (PARTIALY – Only RORO with ship)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	68 806	69 231
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	27 260	27 280
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	3 961	4 104
Number of cases classified as non-respondents	540	512
Number of cases where sample register information was wrong and response could not be used	3 784	3 995
Number of questionnaires used in analysis	18 975	18 669

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Poland

Organisation responsible for the conducting the survey:

Central Statistical Office (Glowny Urzad Statystyczny GUS)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Statistical motor vehicle database (created for the purpose of this survey)

Name of organisation who maintains the register:

Ministry of Digital Affairs

Frequency of update:

Quarterly

Frequency of access to draw the samples:

Quarterly

Arrangements for accessing the register:

The main data source is Central Vehicle Register (maintained by Ministry of the Digital Affairs).

Data as of the end of each quarter are received as 16 files in the XML format (according to NTS 3-level /districts) four times a year (at the end of December, March, June, September)

Information obtained from the register:

Information to conduct the survey: registration number, name, address and ID number (REGON) of the vehicle owner or user, type of vehicle, year of manufacture, load capacity, maximum permissible weight, type of body, administrative region (NTS4/ district-codes), number of axles information on model and brand of vehicles in case both the vehicle's load capacity and maximum permissible laden weight is unknown.

Information for the stratification: type of vehicle, year of manufacture, administrative region (NUTS4-level), permissible gross weight, load capacity (for lorries).

Procedure for reminders:

First reminder: 23 days after the survey week.

Second reminder: 3 weeks after first sent reminder.

In 2023, the survey sample amounted to 50 023 goods motor vehicles.

The statistical obligations of the companies with more than 100 vehicles are limited to only 30 % of their fleet.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Road motor vehicles over 25 years old.

Lorries with 3.5 and less than 3.5 tonnes maximum permissible weight and less than 1.5 tonnes load capacity.

Military vehicles, vehicles of the border guard, police vehicles, vehicles belonging to central or local public administrations and agricultural tractors.

Special purposes vehicles and vehicle not adjusted to carry goods.

Estimations for the vehicle-km (or performance) not covered by the survey:

In 2015, about 5 % of total performance is not covered by Regulation 70/2012.

Time unit:

One week

Time units of quarter 1 of 2022 included in the survey:

All (13 weeks).

Stratification:

The sample has 192 strata and is stratified according to:

- Type of vehicle (2 classes): lorry; road tractor
- Age (4 age-groups): 0–5, 6–10 (younger), 11–15; 16–25 (older)
- Load capacity (2 classes): <6 tonnes; => 6 tonnes (concerning the lorries only)
- 16 regions (from 02 to 32)

The sample is divided into 12 large strata:

- 11–lorries with under 6 tonnes of load capacity and within the 0–5 age group
- 12–lorries with under 6 tonnes of load capacity and within the 6–10 age group
- 21–lorries with under 6 tonnes of load capacity and within the 11–15 age group
- 22–lorries with under 6 tonnes of load capacity and within the 16–25 age group
- 31–lorries with 6 tonnes and more than 6 tonnes of load capacity and within the 0–5 age group
- 32–lorries with 6 tonnes and more than 6 tonnes of load capacity and within the 6–10 age group
- 41–lorries with 6 tonnes and more than 6 tonnes of load capacity and within the 11–15 age group
- 42–lorries with 6 tonnes and more than 6 tonnes of load capacity and within the 16–25 age group
- 51–road tractors within the 0–5 age group
- 52–road tractors within the 6–10 age group
- 61–road tractors within the 11–15 age group
- 62–road tractors within the 16–25 age group

Each of the strata is allocated into 16 regions. The sample is allocated to the stratum in proportion to the population of the stratum and distributed equally among the 13 weeks of the quarter.

Each of strata has a unique code which consists of code for the region and a symbol of the large stratum (e.g., 0211).

The sampling fraction is greater for younger and heavier vehicles, which means that:

- the sample of heavier lorries is one and a half as big as the sample of lighter lorries, while the sample of younger lorries is almost as much as the sample of older lorries
- the sample of younger road tractors is twice as big as the sample of older road tractors

Recording of weight of goods

Gross-gross weight of goods is collected, i.e., containers swap bodies and pallets are included.

Recording of journey data sent to Eurostat:

Single stop: Transport operators are requested to give only one main type of goods (dominant considering the weight of goods).

Multi stop: For each place of loading in the type 2 journeys is recorded only one main type of goods. Goods are unloaded according to the method FIFO (the first type of goods loaded is the first type of goods unloaded)

Collection/delivery: The transport operators give only the first and last place of loading/unloading and the number of stops. Type 3 journeys are recorded only for national transport.

The weight of goods and tonnes-kilometres are calculated according to the formula:

Weight of goods (A2.2) = weight of goods (A3.2)

Tonnes-km = $\sum$ (A3.2 * A3.7)/20

where:

A3.2–weight of goods

A3.7–distance travelled

Other variables: The axle configuration of vehicle and the type of transport are recorded as the most frequently-used during the survey week.

Estimation of maximum permissible laden weight:

For a given vehicle whose load capacity is known, the maximum permissible laden weight is estimated using the most common maximum permissible laden weight recorded by other vehicles of the same load capacity.

In case both the vehicle's load capacity and maximum permissible laden weight is unknown in Central Vehicle Register, we refer to information regarding model and brand of vehicles. Missing information on maximum permissible laden weight and load capacity is completed on the basis of the vehicle catalogue

Calculation of weighting factors:

Weighting factor $= 13 \times C \times \dfrac{N}{n}$

N = total number of vehicles in the sampling frame (in a stratum)

n = number of vehicles selected for the sample

C = correction factor computed as $\dfrac{s_1 + s_3}{s_1}$

s_1 = number of active stock (active vehicles (records in A1 dataset) and non-working vehicles (due to sickness, repair, lack of work etc))

s_3 = number of non-responses (non-contacts, refusals, unknown users, sold vehicles, vehicles covered by banking secrecy, etc.)

During the weighting process we deal with:

1. Over-coverage

2. Non-response

Basic weighting factor:

$w_1 = 13 \times \dfrac{N}{n}$

Assumption 1: The proportion of scrapped and other out-of-scope vehicles found on the survey is the same as on the register.

Assumption 2: All non-responses are assumed to be in-scope.

1. Over-coverage

Weighting factor considering over-coverage:

$$w_2 = w_1 \times \frac{s_1 + s_3}{n}$$

2. Non-response

Weighting factor considering non-response:

$$w_3 = w_2 \times \frac{n}{s_1}$$

Finally:

$$w_4 = 13 \times \frac{N}{n} \times \frac{s_1 + s_3}{s_1}$$

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and average fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	708 366	1 453 814
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	50 025	100 046
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	7 833	17 852
Number of cases classified as non-respondents	16 253	32 836
Number of cases where sample register information was wrong and response could not be used	7 407	12 184
Number of questionnaires used in analysis	18 532	37 174

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Portugal

Organisation responsible for the conducting the survey:

National Statistical Institute (INE)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Heavy goods road vehicle file

Name of organisation who maintains the register:

National Organisations:

- I.R.N. (Instituto dos Registos e do Notariado)
- I.M.T. (Instituto da Mobilidade e dos Transportes)

Frequency of update:

Quarterly concerning the survey feedback, annually concerning the 2 external sources

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Each year, IMT provides the file containing the vehicles licensed to transport activities and IRN provides the file containing the identification (name and address) of the owners or users (these last only for registers changed in the current year).

Information obtained from the register:

Vehicle registration, 1st year of the vehicle registration, maximum permissible laden weight, load capacity, number of axles, category of the vehicle, type of transport, identification and NACE of the owner, auxiliary information about some leasing contracts.

Used in stratification: NUTS II of the address of the owners (Mainland regions: Norte, Centro, Lisboa, Alentejo and Algarve), Category of the vehicle (Lorry or Road tractor), Gross weight class (5 for lorries and 2 for tractors), Type of transport (Own Account, Hire or Reward).

Procedure for reminders:

The first reminder goes out 3 weeks after the end of the month under observation, the second reminder goes out three weeks after the first one and the last reminder goes out only for selected specific cases.

The response rate seems to be adequate (about 90-95 % in provisional data).

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

All vehicles with maximum permissible laden weight equal or inferior to 3 500 kg, vehicles not used for the transport of goods, such as agricultural and military vehicles, fire engines and special transport vehicles.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

Two stratums of 'gross weight class' were merged: 19 001kg–22 000kg and 22 000kg–26 000Kg into 19 001 Kg–26 000 Kg.

The sample is stratified according to the following variables:

- First two digits:
  - Region NUTS II (Norte, Centro, Lisboa, Alentejo and Algarve)
- Third digit:
  - Category of vehicle (Lorry or Road Tractor)
- Fourth digit:
  - Gross weight class (Lorry):
    › 3 501–10 000 kg
    › 10 001–16 000 kg
    › 16 001–19 000 kg
    › 19 001–26 000 kg
    › over 26 000
  - Gross weight class (Road Tractor):
    › 3 501–7 000 kg
    › over 7 000
- Fifth digit:
  - Type of transport (Own Account, Hire or Reward)

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: If in the same journey, more than one goods commodity is carried, we consider that journey as type 2.

Multi stop: multi-stop journeys are coded by consignments. This type of journey is considered when there is more than one goods commodity being carried or several stops during the journey. When the answer implies several stops, the journey is transformed into type 1 journeys; if the vehicle becomes empty, a new road freight transport operation is considered.

Collection/delivery: This type of journey is considered whenever there is a collection/delivery of goods with an unrecorded number of stops with short distances separating them. When retrieving data there are often the following situations:

1. On the same journey, when an empty packaging retrieval occurs simultaneously (type of goods: 250), the registered number of kilometres travelled equals the total kilometres divided by the number of goods being carried. The calculation of the tonnes-kilometres is made in the same way as for type 2 journeys.

2. When there is no simultaneous retrieval of empty packaging, it is considered as origin the first point of departure and as the last the farthest one (not the last); it is registered the kilometres that were effectively travelled (usually, the sum of all the stages is huge), and the calculation of the tonnes-kilometres is made according to: weight * distance / 20.

Estimation of maximum permissible laden weight:

Maximum permissible laden weight is estimated by adding the gross weight of the vehicle and the gross weight of the trailers (or semi-trailer) used.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{n_h}{n_h}$$

h = stratum

N_h = total number of vehicles adjusted for strata changes and out-of-scope vehicles

n_h = number of usable responses (vehicles with activity + vehicles without activity)

Non response: only effective responses are considered. Partial and non-responses are not treated.

Wrong information in sample register(s): the information is corrected in the sampling frame.

Vehicles without activity during the sampled period (due to sickness, repair, lack of work etc): are considered as effective responses.

Post-stratification and sampling frame adjustment is used.

Collection data is used to correct strata variables of sample units and adjust, in the same proportion, the distribution of total number of vehicles by strata.

The out-of-scope vehicles are also eliminated from the sampling frame. Total number of vehicles is adjusted as well.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	73 177	71 444
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	17 813	17 777
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 765	7 280
Number of cases classified as non-respondents	2 006	2 335
Number of cases where sample register information was wrong and response could not be used	729	676
Number of questionnaires used in analysis	13 313	7 486

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Romania

Organisation responsible for the conducting the survey:

National Institute of Statistics: Institutul National de Statistica–INS–Romania

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Vehicle Register

Name of organisation who maintains the register:

Romanian Road Authority

Frequency of update:

Quarterly

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

The sampling frame is based on the information on authorised vehicles received quarterly from Romanian Road Authority. The scrapped vehicles reported by owners and the vehicles older than 25 years are not included in the sampling frame.

Information obtained from the register:

Number of registration, type of vehicle (category of vehicle and subcategory of vehicle), year of manufacturing, maximum permissible weight, load capacity, number of axles of vehicle (single vehicle), name and address of the vehicle's owner. From NIS statistical registers is obtained the information on main activity for owner of vehicle (NACE Rev 2). The above-mentioned information is updated by the transport operator while filling in the questionnaire.

Used in stratification: Type of transport (derived from NACE Rev 2), load capacity

Procedure for reminders:

Reminders are transmitted by email at one week, respectively two weeks after the reporting deadline. After the second reminder the respondents are contacted by phone.

The response rate is adequate.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles with load capacity less than 3.5 tonnes, military vehicles, vehicles of public administrations, agricultural vehicles and vehicles older than 25 years.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The sample is stratified according to the following variables:

- Statistical regions (8 classes):

  - Nord-Est
  - Sud-Est
  - Sud–Muntenia
  - Sud-Vest Oltenia
  - Vest
  - Nord-Vest
  - Centru
  - Bucuresti-Ilfov

- Type of transport:

  - hire or reward
  - own account

- Load capacity (4 classes):

  - 3 500–7 500 kg
  - 7 501–12 000kg
  - 12 001–17 000 kg
  - more than 17 000 kg

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: For journeys with more than one commodity, only one record is created.

Journeys with the same distance, same goods, same quantity, same place of loading and unloading are recorded on a single row in the questionnaire, mentioning the number of identical journeys, but in A2 are recorded all journeys.

Multi stop: multi-stop journeys are recorded by vertical stages.

Calculations of weighting factors:

$$\text{Weighting factor} = 13 \times C \times \frac{N}{n}$$

N = total number of vehicles in a stratum

n = number of vehicles selected for the sample

C = correction factor computed for each stratum h as $\dfrac{n_{h1} + n_{h3}}{n_{h1}} \times \dfrac{n_{h1} + n_{h2} + n_{h3} + n_{h4}}{n_{h1} + n_{h2} + n_{h3}}$

where:

n_{h1} = number of vehicles with activity from stratum h

n_{h2} = number of vehicles without activity from stratum h

n_{h3} = number of refusals from stratum h

n_{h4} = number of vehicles with uncertain activity from stratum h

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Quantity of fuel purchased (low quality of data)

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (NO)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES) (see the mention from Country and table specific notes)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	144 253	147 791
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	32 212	32 216
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	12 418	12 310
Number of cases classified as non-respondents	1 507	1 501
Number of cases where sample register information was wrong and response could not be used	2 054	2 013
Number of questionnaires used in analysis	16 233	16 392

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Slovenia

Organisation responsible for the conducting the survey:

Statistical Office of the Republic of Slovenia (SURS)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Central Register of Vehicles and Traffic Documents

Name of organisation who maintains the register:

Ministry of Infrastructure

Frequency of update:

Monthly

Frequency of access to draw the samples:

Quarterly

Arrangements for accessing the register:

Bilateral institutional agreement by the Statistical Office of the Republic of Slovenia and the Ministry of Infrastructure and Spatial Planning.

The replication of the statistical version of the Central Register of Vehicles and Traffic Documents at the Ministry of Infrastructure and Spatial Planning is made on the last day of every month.

Before each quarterly sampling, the Central Register of Vehicles and Traffic Documents is matched with the Business Register of Slovenia to obtain information on activity and address for owners and users of vehicle.

Information obtained from the register:

Central Register of Vehicles and Traffic Documents: identification of the owner/user, type of owner, registration number, type of vehicle, type of body, unladen weight, maximum permissible laden weight, year of manufacture, number of axles, date of first registration, date of first registration in Slovenia, type of fuel used.

Used in stratification:

- type of owner
- unladen weight
- maximum permissible laden weight

Business Register: main activity of the operator, name of the owner/user, address of the owner/user.

Procedure for reminders:

First reminder – two weeks following the observation period

Second reminder–four weeks following the observation period

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Agricultural vehicles, military vehicles, public service vehicles, special purpose vehicles and vehicles belonging to users that could not be matched with the business register.

Vehicles with load capacity below 2 tonnes.

Time unit:

One week

Time units of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

Strata were defined with the type of ownership (2 classes: legal entities, natural persons) and loading capacity (4 classes: 2.00–4.99, 5.00–9.99, 10.00 and more tonnes, road tractors). The allocation of units among the strata is proportional with slight corrections due to fact that the sample size in each stratum should be divisible by 13 (weeks in a quarter).

Recording of weight of goods:

Gross weight of goods is collected; containers and swap bodies are excluded, but pallets might be included.

Recording of journey data sent to Eurostat:

Single stop: In case of more than one type of goods in the same journey, the main type of —goods carried is used for the classification of goods. However, total weight of all goods is recorded.

Multi stop: In case of more than one type of goods in the same journey, the main type of goods carried is used for the classification of goods. However, total weight of all goods is recorded. Dataset A3 is set up with the assumption that goods loaded first are unloaded first (FIFO).

Collection/delivery: In case of more than one type of goods in the same journey, the main type of goods carried is used for the classification of goods. However, total weight of all goods is recorded.

Origin is the first place of loading or the first place from where the empty vehicle is set out to pick up goods. Destination is the furthest town in a circular journey. Empty kilometres are not recorded in A3 or A2; however, they are included in A1.8.2. In case of collection/delivery in international journey, type 2 or simplified type 1 journey is used.

Tonne-kilometres for type 3 journeys are calculated as follows:

$$A2.6 = \sum_{i=0}^{n-1} DL/n \times (WL - i \times WL/n) + \sum_{i=0}^{n-1} DL/n \times (WC - i \times WC/n)$$

n   stops number

DL   distance travelled loaded

WL   weight of goods loaded

WC   weight of goods collected

Other variables: In case of usage of more than one trailer in the surveyed week, only information on the trailer used in majority of cases is collected.

Calculation of weighting factors:

Weights for each stratum are calculated as follows.

Weights due to non-response:

$$w_{NONR} = \frac{\textit{Number of units in sample}}{\textit{Number of eligible} + \textit{Number of ineligible units}}$$

Weights due to sample selection:

$$w_{SEL} = \frac{\textit{Number of units in frame}}{\textit{Number of units in sample}}$$

Overall weight:

$$w_{Overall} = w_{sel} \times w_{nonr} \times 13$$

Eligible units are units that respond to the questionnaire regardless of the activity of the vehicle (also inactive: no work, holiday, etc.).

Ineligible units are units beyond the target population that were included in the sample. These include cases where the capacity of the vehicle was below 2 tonnes or the vehicle was temporarily or permanently withdrawn from the Register.

Vehicles with unknown addresses and other mistakes in the register, sold, leased or subcontracted vehicles and vehicles whose respondents refused to answer or dispatched unusable questionnaires are treated as non-response.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables:

Type of fuel used and quantity of fuel purchased.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	30 315	30 814
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 333	8 333
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 320	1 374
Number of cases classified as non-respondents	2 893	2 868
Number of cases where sample register information was wrong and response could not be used	454	488
Number of questionnaires used in analysis	3 666	3 603

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Slovakia

Organisation responsible for the conducting the survey:

Statistical Office of the Slovak Republic (Štatistický úrad Slovenskej republiky SKSO)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Vehicle Register and Register of operators

Name of organisation who maintains the register:

Ministry of Interior and Statistical Office

Frequency of update:

Permanently

Frequency of access to draw the samples:

Yearly

Arrangements for accessing the register:

Vehicle register: Annually taken over from administrative sources, Ministry of Interior. Sample survey is updated quarterly.

Operator's register (administrator Statistical Office of the Slovak Republic) is being currently updated.

Identifier Code of operators is converted between register.

Information obtained from the register:

Vehicle register: Vehicle register mark, identifier of operators, type of vehicle, year of production, load capacity and date of input.

Operators register: Identifier of operators, type of operators, name of operators, settlement code, settlement name, street and number, ZIP code, NACE code and date of input.

Used in stratification: a low form of the vehicle owner (enterprise or tradesman), type of vehicle and loading capacity is used.

In the frame of sample survey, the region is taking into sampling.

The region is not a criterion for strata.

Procedure for reminders:

Respondent has to send the filled questionnaire in written or electronic form to the Statistical Office within 8 days after the end of the surveyed week.

First reminder: If the respondent does not fulfil his obligation within the deadline, a first reminder is sent 2 weeks after the surveyed week.

Second reminder: Sent 2 weeks after the 1st reminder.

Reminders are automatically generated by the IT system according to the date of the surveyed week.

The response rate is adequate.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

None

Time unit:

One week

Time units of quarter 1 of 2022 included in the survey:

All (13 weeks)

Stratification:

From 2019 a new stratification is used:

			Loading capacity
1 1 1	Enterprises/Business register	lorries	of 1 to 3 499 tonnes
2 1 1	Sole entrepreneurs/Tradesman register	lorries	of 1 to 3 499 tonnes
1 1 2	Enterprises/Business register	lorries	of 3 500 – 4 999 tonnes
2 1 2	Sole entrepreneurs/Tradesman register	lorries	of 3 500 – 4 999 tonnes
1 1 3	Enterprises/Business register	lorries	of 5 000 – 9 999 tonnes
2 1 3	Sole entrepreneurs/Tradesman register	lorries	of 5 000 – 9 999 tonnes
1 1 4	Enterprises/Business register	lorries	of 10 000 tonnes and more
2 1 4	Sole entrepreneurs/Tradesman register	lorries	of 10 000 tonnes and more
1 2 5	Enterprises/Business register	road tractor	
2 2 5	Sole entrepreneurs/Tradesman register	road tractor	

Since 2017, the sample has been increased from 10 400 to 13 000 vehicles per year.

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e. containers are included.

Estimation of maximum permissible laden weight:

Maximum permissible laden weight is estimated as 1.25 * loading capacity.

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S}$ or $13 \times \dfrac{\rightleftarrows N}{S + S'}$ (depending on register quality)

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S' = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	164 586	175 520
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	12 055	13 000
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	4 065	4 426
Number of cases classified as non-respondents	1 787	1 975
Number of cases where sample register information was wrong and response could not be used	923	1 085
Number of questionnaires used in analysis	5 280	5 514

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Finland

Organisation responsible for the conducting the survey:

Statistics Finland

(Based on information referring to the first quarter of 2022)

Sampling register used for the survey

Name of register:

1) Vehicle Register

2) Membership register

Name of organisations who maintains the register:

1) Finnish Transport and Communications Agency (Traficom)

2) SKAL-S (International Road Carriers of Finland – Association of Contract Operators in Finland – Association of Tank Operators in Finland)

Frequency of update:

Constantly

Frequency of access to draw the samples:

1) Once a quarter

2) Twice a year

Arrangements for accessing the register:

An agreement for co-operation in statistical issues with Finnish Transport and Communications Agency and with SKAL-S.

Information obtained from the register:

1) The vehicle's register number, the vehicle holder's name and address, the vehicle holder's register code (if not a natural person), the vehicle holder's language, date of first registration, model, made, type of vehicle, body type, type of transport, self-weight, load capacity, maximum permissible laden weight, type of haul device (hook/fifth wheel), number of axles, engine power.

Used for stratification:

- type of transport (own account, hire or reward),
- maximum permissible laden weight (over 3.5 tonnes and up to 6 tonnes, over 6 tonnes),
- type of vehicle (lorry, articulated vehicle, road train).

2) Membership of SKAL-S, which is also used for stratification.

Procedure for reminders:

Questionnaires for four successive survey periods (two weeks altogether) are sent simultaneously. Reminders are sent like described below:

- If a vehicle holder does not respond in 3 days after the due date for return of the questionnaire, first reminder is sent out by post.
- If a vehicle holder still does not respond within 2 weeks of the previous reminder, second reminder is sent by post.
- If a vehicle holder still does not respond within 2 weeks of the previous reminder, third reminder is sent by e-mail.

- If a vehicle holder still does not respond within one week of the previous reminder, fourth reminder is sent by text message

From 2014 to 2019 response rate has been between 58 and 63 % while the share of questionnaires used in analysis has stayed around 50 %. The share of incomplete answers has also risen. By incomplete answers we mean that:

- Respondent has only visited web questionnaire but not filled in anything
- Filled in only contact information
- Filled in that vehicle was in use, but no journeys were given
- Etc.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vans whose maximum permissible laden weight is 3.5 tonnes or less. Furthermore, military vehicles and vehicles which are not especially designed to transport goods such as museum vehicles, fire engines and special vehicles.

Estimations for the vehicle-km (or performance) not covered by the survey:

Vans, whose maximum permissible laden weight is 3.5 tonnes or less, had 5.217 million vehicle kilometres in 2008 (see 2010 EU-GRANTS project 'Estimating vehicle kilometres with odometer readings, Eurostat No 30402.2009.004–2009.401, Table 17.).

Time unit:

3 days for non-members of SKAL-S, 4 days for members of SKAL-S. These days make a period of one week. Every other week starts with 3 days and every other week starts with 4 days.

Time unit of quarter 1 of 2022 included in the survey:

12 weeks (out of possible 12 weeks and 6 days), i.e., all

Stratification:

The population frame consists of lorries registered in Finland. The sample is drawn from this frame. The sample is spread evenly over all days of the week and the sample is self-weighting with respect to seasonal effects as well as to the regional coverage of 20 regions.

The sample is stratified by:

- if the holder of the vehicle belongs to SKAL-S (2)
- type of transport (2)
- maximum permissible laden weight (2)
- type of vehicle (3)

All together there are 16 strata:

1) non-member of SKAL-S, own account, MPLW over 3.5 tonnes and up to 6 tonnes, lorry

2) non-member of SKAL-S, own account, MPLW over 6 tonnes, lorry

3) non-member of SKAL-S, own account, MPLW over 6 tonnes, articulated vehicle

4) non-member of SKAL-S, own account, MPLW over 6 tonnes, road train

5) non-member of SKAL-S, hire or reward, MPLW over 3.5 tonnes and up to 6 tonnes, lorry

6) non-member of SKAL-S, hire or reward, MPLW over 6 tonnes, lorry

7) non-member of SKAL-S, hire or reward, MPLW over 6 tonnes, articulated vehicle

8) non-member of SKAL-S, hire or reward, MPLW over 6 tonnes, road train

9) member of SKAL-S, own account, MPLW over 3.5 tonnes and up to 6 tonnes, lorry

10) member of SKAL-S, own account, MPLW over 6 tonnes, lorry

11) member of SKAL-S, own account, MPLW over 6 tonnes, articulated vehicle

12) member of SKAL-S, own account, MPLW over 6 tonnes, road train

13) member of SKAL-S, hire or reward, MPLW over 3.5 tonnes and up to 6 tonnes, lorry

14) member of SKAL-S, hire or reward, MPLW over 6 tonnes, lorry

15) member of SKAL-S, hire or reward, MPLW over 6 tonnes, articulated vehicle

16) member of SKAL-S, hire or reward, MPLW over 6 tonnes, road train

Stratum 1 and 9 are combined and marked as stratum 1 when data are sent to Eurostat.

This is done similarly to strata 2 and 10, to strata 3 and 11 and so on.

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers, swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: The commodity class of the goods that has the biggest weight is being used.

Multi stop: multi-stop journeys are coded by consignments (the first place of loading for the goods and the last place of unloading of the goods are being used). The weight of goods is reported when biggest during the journey.

Collection/delivery: if there are more than 4 stops for loading/unloading during the journey, journey is classified as a collection or distribution journey.

The first place of loading of the goods and the last place of unloading is being used.

The weight of goods is reported when the biggest during the journey.

Tonne-kilometres are divided by 2.

Estimation of maximum permissible laden weight:

If the maximum permissible laden weight for an articulated vehicle or a road train is not given by the holder, then it is estimated.

In estimation we use a table which has means of weights for different axle combinations of vehicles from an earlier time period.

Calculation of weighting factors:

Strata 1–8 are exactly the same as strata 9–16 except for one difference: in strata 1–8 the first variable has the value 'non-member of SKAL-S' whereas in strata 9–16 it has the value 'member of SKAL-S'.

When weighing factors are calculated, the first variable is not taken into account.

In other words, stratum 1 and 9 are combined and the weighing factor is calculated to that group, and this is done similarly to strata 2 and 10, to strata 3 and 11 and so on.

Weighting factor $= T \times \dfrac{N}{R}$

T = Time factor

N = number of all vehicles (in a stratum)

R = number of respondents (active and non-active in a stratum)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (NO)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (NO)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	104 784	103 501
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	10 000	10 000
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 333	2 486
Number of cases classified as non-respondents	4 578	4 378
Number of cases where sample register information was wrong and response could not be used	482	517
Number of questionnaires used in analysis	2 606	2 617

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Sweden

Organisation responsible for the conducting the survey:

Transport Analysis (NSI) and Statisticon (Statistics and Research)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Vehicle Register (VR), Commercial Traffic Register (CTR), Central register of corporations (FDB) and the vehicle-kilometre database (VKD). These registers are used to construct the sampling frame.

Name of organisation who maintains the register:

Swedish Transport Agency (the registers VR and CTR) and Statistics Sweden (the registers FDB and VKD).

Frequency of update:

- VR, CTR and FDB: daily
- Vehicle-kilometre data (VKD): yearly

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Transport Analysis is the responsible authority for the survey and they have since year 2009 commissioned the company Statisticon AB to produce the survey. Statisticon AB currently has the option for this production until reference year 2020. The VR and CTR is delivered from the Swedish Transport Agency to the producer at specified dates. For quarter Q the register data is received 1.5 months in advance. The specific dates each year are:

- First quarter: November 15 (previous year)
- Second quarter: February 15
- Third quarter: May 15
- Fourth quarter: August 15

The sampling frame is constructed based on the Vehicle Register data where the object is vehicle. In the process various steps are taken, including omitting vehicles not belonging to the target population (e.g., load capacity should be 3.5 tonnes or more). One other step includes merging data from the central register of corporations (FDB) and only keeping those vehicles belonging to formally registered companies. Yet another step includes merging register-based data on driving distance (kilometres travelled) from previous year for each vehicle based on information from the vehicle- kilometre database (VKD).

Information obtained from the register:

Most of the information regarding a vehicle is obtained from the Vehicle Register. Important variables are: vehicle registration number, organisation number of the enterprise/owner of the vehicle, name and address, year of first registration, vehicle in use/not in use, type of transport (hire/reward or own account), number of axles for the vehicle, vehicle body code plus the information is used in the stratification as follows:

- County codes where the vehicle is registered are used to get the NUTS 2-level codes
- Maximum permissible laden weight and the service weight of the vehicle. The difference between those two concepts gives the vehicle load capacity, which is used in the stratification

- From the Commercial Traffic Register we obtain the number of permits for international traffic for an enterprise. This variable is used to form a stratification variable whether the vehicle has a permit for international traffic or not
- The variable kilometres travelled previous year is also used in the stratification
- Age for the vehicle (used in the stratification)

Procedure for reminders:

First reminder: sent out by post after one week and 3 days after the due date.

Second reminder: sent by post after another week.

Third reminder: performed by telephone after another week. The telephone reminder process continues for two weeks.

A normal figure for the response rate is around 60 percent. Considering the potential effect the non-response might have on the estimates, we judge the response rate to be satisfactory for the purpose of the survey.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles with load capacity under 3.5 tonnes are excluded.

Vehicles that are not operating.

Vehicles 30 years and older.

Some body type codes for which transport of goods is not possible, such as ambulances, hearses, breakdown lorries, fire engines (military vehicles are not included in the Vehicle Register).

Vehicles owned by companies that are not registered in the central register of corporations.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

All (13 weeks)

Stratification:

The lorries in the sampling frame are stratified in 52 strata. The stratification is done with respect to several variables. The first variable is whether the lorry owner has a permit for international traffic or not. If the owner (i.e., the company) has a permit for international traffic the lorry or the lorries are categorized to international stratum, otherwise to national stratum. There are 35 national and 17 international strata. The next stratification variable is where the lorry is registered. The eight NUTS2-regions in Sweden categorized into 5 geographic areas according to the following:

1. SE11 and SE12

2. SE21 (without the island Gotland) and SE23

3. SE22

4. SE31, SE32 and SE33

5. Gotland

Due to special circumstances regarding the island Gotland, it is kept as a region of its own.

For the **35 national strata** the stratification is done according to the following principles:

- The lorries are geographically divided according to the geographic regions above
- In every geographic region, except Gotland, the lorries are divided into two groups according to their age; lorries 0–5 years old and lorries older than 5 years old
- Within each age group the lorries are divided into six subgroups according to total kilometres travelled per year (register variable) and load capacity (register variable) according to:

  − Lorries with load capacity up to 13 tonnes (regardless of yearly distance travelled)
  − Lorries with yearly distance travelled 100 000 km or less and load capacity 13–16 tonnes
  − Lorries with yearly distance travelled 100 000 km or less and load capacity over 13 tonnes
  − Lorries with yearly distance travelled more than 100 000 km and load capacity over 13 tonnes

- Lorries registered in Gotland are divided into two groups according to load capacity; 13 tonnes or less and over 13 tonnes

For the **17 international strata** the stratification is done according to the following principles. In a first step road tractors that fulfil the following criteria are placed in a separate stratum (200000):

- Lorry owned by company with 16 or more permits for international traffic.
- The lorry is younger than 11 years old
- The lorry is registered in NUTS2 region SE11 or SE12 or the counties Blekinge or Västra Götaland and has a yearly total distance travelled over 100 000 km and a load capacity over 10 tonnes
- The lorry is registered in the county Skåne or Halland and has a load capacity over 10 tonnes

In a second step the additional 16 strata are created by dividing the lorries into four geographic regions according to:

- NUTS2 region SE11, SE12 and SE21
- NUTS2 region SE22
- NUTS2 region SE23
- NUTS2 region SE31, SE32 and SE33

For each geographic region, road tractors are divided into a separate stratum regardless of yearly distance travelled or load capacity. The remaining lorries are divided into three strata according to yearly distance travelled and load capacity according to:

- Lorries with yearly distance travelled 100 000 km or less and load capacity 10 tonnes or less
- Lorries with yearly distance travelled 100 000 km or less and load capacity 10 tonnes or more
- Lorries with yearly distance travelled more than 100 000 km

The 35 national strata:

Nr	Stratum code	Geographic division	Age	Yearly distance travelled (km)	Load capacity (Kg)
1	110101	SE11, SE12	0–-5 year	Regardless of distance	0–13 000
2	110112		0–5 year	0–100 000	13 001–16 000
3	110113		0–5 year	0–100 000	16 001+
4	110122		0–5 year	100 001+	13 001+
5	110201		6+ year	Regardless of distance	0–13 000
6	110212		6+ year	0–100 000	13 001–16 000
7	110213		6+ year	0–100 000	16 001+
8	110222		6+ year	100 001+	13 001+
9	120101	SE21 exkl. Gotland, SE23	0–5 year	Regardless of distance	0–13 000
10	120112		0–5 year	0–100 000	13 001–16 000
11	120113		0–5 year	0–100 000	16 001+

Nr	Stratum code	Geographic division	Age	Yearly distance travelled (km)	Load capacity (Kg)
12	120122		0–5 year	100 001+	13 001+
13	120201		6+ year	Regardless of distance	0–13 000
14	120212		6+ year	0–100 000	13 001–16 000
15	120213		6+ year	0–100 000	16 001+
16	120222		6+ year	100 001+	13 001+
17	130101	SE22	0–5 year	Regardless of distance	0–13 000
18	130112		0–5 year	0–100 000	13 001–16 000
19	130113		0–5 year	0–100 000	16 001+
20	130122		0–5 year	100 001+	13 001+
21	130201		6+ year	Regardless of distance	0–13 000
22	130212		6+ year	0–100 000	13 001–16 000
23	130213		6+ year	0–100 000	16 001+
24	130222		6+ year	100 001+	13 001+
25	140101	SE31, SE32, SE33	0–5 year	Regardless of distance	0–13 000
26	140112		0–5 year	0–100 000	13 001–16 000
27	140113		0–5 year	0–100 000	16 001+
28	140122		0–5 year	100 001+	13 001–16 000
29	140123		0–5 year	100 001+	16 001+
30	140201		6+ year	Regardless of distance	0–13 000
31	140212		6+ year	0–100 000	13 001–16 000
32	140213		6+ year	0–100 000	16 001+
33	140222		6+ year	100 001+	13 001+
34	150001	Gotland	Regardless of age	Regardless of distance	0 –13 000
35	150002		Regardless of age	Regardless of distance	13 001+

The 17 international strata:

Nr	Stratum code	Geographic division	Type of lorry	Yearly distance travelled (km)	Load capacity (Kg)
36	200000				
37	211000	SE11, SE12 och SE21	Road tractor not belonging to stratum 200000	Regardless of distance	Regardless of load capacity
38	212011	SE11, SE12 och SE21	Other lorries	0–100 000	0–10 000
39	212012	SE11, SE12 och SE21	Other lorries	0–100 000	10 001+
40	212020	SE11, SE12 och SE21	Other lorries	100 001+	Regardless of load capacity
41	221000	SE22	Road tractor not belonging to stratum 200000	Regardless of distance	Regardless of load capacity

Nr	Stratum code	Geographic division	Type of lorry	Yearly distance travelled (km)	Load capacity (Kg)
42	222011	SE22	Other lorries	0–100 000	0–10 000
43	222012	SE22	Other lorries	0–100 000	10 001+
44	222020	SE22	Other lorries	100 001+	Regardless of load capacity
45	231000	SE23	Road tractor not belonging to stratum 200000	Regardless of distance	Regardless of load capacity
46	232011	SE23	Other lorries	0–100 000	0–10 000
47	232012	SE23	Other lorries	0–100 000	10 001+
48	232020	SE23	Other lorries	100 001+	Regardless of load capacity
49	241000	SE31, SE32 och SE33	Road tractor not belonging to stratum 200000	Regardless of distance	Regardless of load capacity
50	242011	SE31, SE32 och SE33	Other lorries	0–100 000	0–10 000
51	242012	SE31, SE32 och SE33	Other lorries	0–100 000	10 001+
52	242020	SE31, SE32 och SE33	Other lorries	100 001+	Regardless of load capacity

Recording of weight of goods:

Gross weight of goods is collected (i.e., not gross-gross weight), which means that containers, swap bodies and pallets are excluded. However, for journeys with no goods but a container, the information to the respondents is to register the weight of the container and use NST-code 16.

Recording of journey data sent to Eurostat:

Single stop: the respondent is allowed to record the main type of goods if there are several types of goods. Otherwise, the respondent will record mixed goods for such a journey.

Multi stop: multi-stop journeys are coded by consignments. The respondent records each basic transport operation in the questionnaire. These records are then recalculated to journey level by the producer. The method used can be described as follows:

- The tonne-kilometres per consignment (each basic transport operation) is calculated by multiplying tonnes with travelled distance (km).
- The tonne-kilometres for each consignment are added to a total tonnes-kilometres for the journey
- The kilometres driven for the journey is registered by identifying the distance between loading point and unloading point (normally not the same as adding the km driven for each basic operation).

Then the tonnes for the journey is calculated according to:

A / B = C

A = Tonne-kilometres for each basic transport operation is calculated and summed up

B = Kilometres driven on the journey

C = Average tonnes for the journey

Tonne-kilometres will be the same regardless of which file, A2 or A3, that is used for their calculation. The exact figures in kilos are used in the calculations.

The type of goods for the total journey is calculated as the main type of goods (in respect of kilos).

Regarding journey type 2 (multi-stop-journeys), we use the principle that if a trailer was used for the first consignment of the journey a trailer was used for the entire journey.

Collection/delivery: In the Swedish survey we allow the respondents to decide if the journey can be seen upon as a collection (c) or distribution (d) round or a combined collection/distribution round (c/d). If the journey consists of five or more stops the respondent is allowed to give information on the journey as a whole. The respondent is asked to indicate the c/d-round with a "D" for distribution or "U" for collection (the U refers to the Swedish wording) or "DU" for combined distribution/collection rounds in the questionnaire. The respondent is also asked to register the number of stops (or approximate number if there are hundreds of stops). If the journey is considered as a c, d or c/d-round the respondent is asked to indicate the total weight for the round as a whole, the total kilometres driven during the round and the main commodity group. In the instructions to our respondents, it is stated that the round is considered to start at the first loading point and finished at the last unloading point. This means that the possible empty leg must be recorded as a separate journey before and/or after the round. The information from the Swedish survey in the A2 file and the A3 file is the same regarding type 3 journeys. The tonne-kilometres are calculated according to the principles in the manual vol 1 2016 in section 6.5. More specifically, for delivery rounds (only) the type 1-principle is used. For collection rounds (only) the type 2-principle is used. For combined delivery and collection rounds the type 5-principle is used.

Special notes on some variables: The respondents are asked to fill in the UN-number instead of the ADR-number for hazardous goods. The UN-number is then converted into ADR-number.

Other variables: Regarding trailers we allow the respondent to record the most common trailer or combination of trailers used during the week for measurement.

Calculation of weighting factors:

The weighting factor is based on the methodology called straight expansion within strata. However, since 2014 the weighting factor is multiplied with an inflation factor that accounts for false reporting of no activity. False reporting means that for a certain vehicle the reply is that no activity was performed during the measurement week, when in fact activity was performed, i.e., a false reply. Inflating the weighting factors leads to a raise in the estimates with about 30 percent. These higher levels are better estimates of the true levels of the parameters, e.g., total km driven. The weighting factor is given by.

$$\text{Weighting factor} = 13 \times \frac{N_h}{m_h} \times w_g$$

h = is the index for stratum, $h = 1,2, \ldots H$ (and $H = 52$)

N_h = the number of vehicles in stratum h

m_h = the number of responding vehicles in stratum h. A vehicle is regarded as responding if it belongs to category B1:5 (vehicles responding with journey data) or B1:6 (vehicles responding without journey)

g = is the index for stratum in the help survey $g = 1,2, \ldots G$ (and $G = 11$)

w_g = an inflation factor that accounts for false reporting of no activity

Remark regarding N_h: For a certain quarter the number of vehicles in a stratum is taken from the following quarter. Example: for quarter 1 the numbers of vehicles in a stratum is taken from the frame from quarter 2. The rationale behind this is that the frame for Q2 originates from February 15, i.e. the midpoint of Q1 in time. The number of vehicles at the midpoint of Q1 is a better source for the population size than the number of vehicles in the frame for Q1 which is originated from November 15 the previous year. This method agrees with the suggested method in the reference manual vol 1 2016 chapter 7.2.2

Remark regarding w_g: A parallel help survey called the No Activity Survey (NAS) is performed together with the ordinary Road Freight Survey (RFS). The target populations are the same and the same frame is used in both surveys. The sample size in the NAS is 500 vehicles each quarter and in the Road Freight Survey (RFS) about 3 000 each quarter. The stratification in the NAS is based on company characteristics rather than vehicle characteristics which are used in the RFS. If a vehicle is selected in the RFS it is non-eligible in the NAS for one year. The reason for the NAS is that there are (strong) indications that the amount of no activity is too large in the RFS Survey. If a vehicle falsely reports no activity, when in fact journeys were

performed, the estimates of e.g., total km driven will be underestimated. In the NAS, performed by telephone, only one question is posed: "Did you use the vehicle for goods transportations last week". Since only one question is posed, we believe that an accurate answer is obtained. Based on each survey, NAS and RFS, the proportion of vehicles with activity and no activity can be estimated. The ratio between the two estimates of proportion of vehicles with activity forms an inflation factor w_g. If, for example, the proportion of vehicles with activity in the NAS is 0.85 and 0.70 in the RFS (in a certain stratum), then the inflation factor is $w_g = 0.85/0.7 = 1.21$, i.e., a raise of 21 %. Since the sample size in the NAS is fairly small the inflation factors can vary between quarters. A stabilizing procedure is used. For a certain quarter Q a weighted average of the inflation factors from year t, t-1 and t-2 is calculated. One (weighted) inflation factor w_g is calculated for each stratum g and is multiplied with the straight expansion weight $13 \times (N_h/m_h)$. Since the stratification is different in both surveys the weighting factors will not be constant within a stratum h. Hence no weighting factors can be presented in the supplementary table B1.

Estimation of maximum permissible laden weight:

The variable maximum permissible laden weight regarding the vehicle is register based information. The maximum permissible laden weight for the trailer or semi-trailer is collected through the questionnaire. If no trailer or semi-trailer is used the maximum permissible laden weight registered in the A2 dataset (variable A1.4) is thus only based on register information. If a trailer or semi-trailer is used, the maximum permissible laden weight for the entire vehicle configuration is calculated as the sum of the vehicle and trailer/semi-trailer maximum permissible laden weight.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES–register information)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES–register information regarding vehicle, collected information regarding trailer or semi-trailer)
- place of loading, if any, of the road transport vehicle on another means of transport (YES)
- place of unloading, if any, of the road transport vehicle from another means of transport (YES)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	66 856	66 966
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	11 741	11 693
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 364	2 518
Number of cases classified as non-respondents	5 016	4 766
Number of cases where sample register information was wrong and response could not be used	361	434
Number of questionnaires used in analysis	4 000	3 975

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Liechtenstein

Organisation responsible for the conducting the survey:

Office of Statistics

(Based on information referring to the first quarter of 2010)

Starting with the reference year 2014, Liechtenstein is exempted from the reporting of road freight data according to Regulation (EU) No 70/2012.

Sampling register used for the survey

Name of register:

National vehicle register

Name of organisation who maintains the register:

Motorfahrzeugkontrolle MKF (Office of Motor Vehicles)

Frequency of update:

Once a quarter

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

There is a direct access to the database of the national vehicle register and to the business register for NACE codes.

Information obtained from the register:

Vehicle registration mark; ID of operator of vehicle; Name of operator of vehicle; Address of operator of vehicle; NACE-Code of operator; Type of vehicle (lorry, road tractor, trailer); Type of lorry; Brand name of Vehicle; Date of first registration; Number of axles; Maximum permissible weight; Maximum permissible weight of vehicle and trailer; Empty weight of the vehicle; Maximum loading capacity; Chassis number.

Procedure for reminders:

A reminder system is used to chase non-respondents:

- First written reminder to the owner of the vehicle: 2 weeks after the deadline when the questionnaire was due to be returned.
- Second written reminder to the owner of the vehicle: 4 weeks after the deadline when the questionnaire was due to be returned.
- Third reminder to the owner of the vehicle (phone call): 6 weeks after the deadline when the questionnaire was due to be returned.
- Afterwards, every two weeks there is a phone call to the owner of the vehicle.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Lorries and vans with maximum permissible weight of less than 6 000 kg.

Due to the EEA treaty, all vehicles operating only in Liechtenstein and Switzerland are not recorded.

Time unit:

1 week

Time unit of quarter 1 of 2010 included in the survey:

6 weeks

Stratification:

The population is stratified in two separate classes of vehicles.

Strata 1: Road tractors and lorry with or without trailer

Strata 2: All other vehicles

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers, swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: transport operators are required to fill in as many lines of the questionnaire as different commodity groups are transported.

Multi stop: multi-stop journeys are coded by consignments. Up to 5 stops are recorded and transport operators are required to fill in as many lines of the questionnaire as different commodity groups are transported.

Collection/delivery: Transport operators fill in only one line for a pick-up or a distribution round mentioning the first and the last place of loading/unloading and the number of loading/unloading operations.

Estimation of maximum permissible laden weight:

The maximum permissible laden weight is calculated from the maximum loading capacity of the trailer, the maximum loading capacity of the lorry, and the maximum permissible weight of lorry and trailer.

Calculation of weighting factors:

$$\text{Weighting factor} = 13 \times \frac{N}{S + S'}$$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables:

Type of fuel used.

- A1. Vehicle-related variables:
- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2012	2013
Total number of relevant goods vehicles in the country	265	258
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	321	314
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	63	63
Number of cases classified as non-respondents	3	7
Number of cases where sample register information was wrong and response could not be used	0	5
Number of questionnaires used in analysis	255	239

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Norway

Organisation responsible for the conducting the survey:

Statistics Norway

(Based on information referring to the first quarter of 2022)

Sampling register used for the survey

Name of register:

The Norwegian Public Roads Administration's motor vehicle register

Name of organisation who maintains the register:

The Norwegian Public Roads Administration

Frequency of update:

Daily

Frequency of access to draw the samples:

Once a quarter

Arrangements for accessing the register:

Through the Statistics Act § 2-2, 2-3 we are authorized to get copies of the register. The data are forwarded from the Directorate of Roads to Statistics Norway at specified dates of deliveries.

The dates are approximately the same for each survey year. The early dates of access for each quarter are stipulated in order to make up the sampling frame, draw a sample, giving a label to the web questionnaires and sending out the forms in due time before the survey period.

Information obtained from the register:

Vehicle Register records most of the information registered on a specific vehicle, about 50 variables. In addition, information about the owner of the vehicle and about the registration of the vehicle is collected.

Used in stratification: Estimated yearly driving distance by PVI and vehicle classification according to The Register of Vehicles.

Procedure for reminders:

First reminder: one week after the due date, a reminder is sent to all those who have not responded. The letter has information about the consequences of not responding and gives a new due date one week later to avoid the compulsory fine.

Second reminder: three-four weeks after the deadline on the last letter, those who have still not responded are reported to the Norwegian National Collection Agency that fines them.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles used for training purposes (owned by driving schools) and other kinds of driving Vehicles not considered to be freight transport such as roadwork, snow clearing, relocation of circus- or fairground carriages etc are excluded.

Vehicles more than 30 years old, vehicles with a carrying capacity of less than 3.5 tonnes, and vehicles with a total weight of 35 tonnes or more.

Time unit:

One week

Time unit of quarter 1 of 2022 included in the survey:

13 weeks

Stratification:

Stratified sampling is used.

The sampling plan was reorganised in the 3rd quarter of 2015, mainly because the Norwegian Public Roads Administration's register of community licences was discontinued. This had been an important source for identifying vehicles that were assumed to be used abroad. Furthermore, there had long been a desire to reduce the reporting burden on big companies with large fleets of vehicles. At the same time, mileage data obtained from vehicle controls (PKK-data) was improved and used to establish the new sampling plan. This data from meter readings is updated quarterly for the lorries in the target group.

In December 2017, a minor adjustment was made to the sample design, with a view to extracting more vehicles used for international transport.

The sample is selected in two steps:

Step 1: Sample of companies engaged in road haulage.

Step 2: Sample of lorries within the selected companies.

The lorries are distributed into 12 categories, based on annual mileage (3 groups) and vehicle class derived from the vehicle group (4 classes).

Approximately 1 900 lorries belong to companies engaged in freight transport are selected every quarter to participate in the survey.

Recording of weight of goods:

Gross weight of goods is collected; containers and swap bodies are excluded, but pallets might be included.

Recording of journey data sent to Eurostat:

Single stop: in case more than one type of commodity is transported, the respondent is allowed to record it as mixed goods.

Multi stop: multi-stop journeys consist of several consignments.

Collection/delivery: Respondents are allowed to decide if the journey can be regarded as a collection and/or distribution round (c/d).

If the journey consists of five or more stops the respondent is allowed to give information on the journey as a whole.

If the journey is considered as a c/d-round the respondent is asked to indicate the average weight for the c/d as a whole, the total kilometres driven during the c/d and the main commodity group. Statistics Norway does not calculate the number of collection stops.

In the instructions to our respondents, it is stated that the c/d-round is considered to start at the first loading point and finished at the last unloading point. The respondents are asked to add an unladen journey before or after the first or last c/d-round.

Estimation of maximum permissible laden weight:

The maximum permissible laden weight is estimated by computing the average of maximum permissible laden weight values for lorries having the same vehicle classification.

Calculation of weighting factors:

Weighting of the sample takes place in six steps. In the first step, sample weights are calculated based on the ratio of the number of vehicles in the population and the number of vehicles selected in each vehicle category.

In the second step, these weights are adjusted using known population totals in different subpopulations derived from an updated vehicle population.

In the third step, the calibration weights of the vehicles that were driven in the survey week are weighted according to a set of factors, based on a sample-based calibration model. This step is performed in order to compensate for the lack of information from vehicles that participated in the survey but were not driven during the reporting period.

In the fourth step, a further adjustment is made to ensure consistency between the estimates of the tonnage carried from the international part of the lorry survey and quarterly figures from the external trade statistics on imports and exports. This adjustment is made for vehicles that transported goods internationally in the reporting week.

In step five, the sample weights for vehicles that only transport goods domestically are further adjusted to ensure consistency between the sample estimates for these vehicles and the associated population totals.

In the final step, the sample weights are multiplied by 13 in order to convert the results from a reporting week to a quarter.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables: none

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	35 967	35 386
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	7 449	7 461
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	2 076	2 156
Number of cases classified as non-respondents	167	198
Number of cases where sample register information was wrong and response could not be used	388	413
Number of questionnaires used in analysis	4 815	4 694

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Switzerland

Organisation responsible for the conducting the survey:

Swiss Federal Statistical Office (FSO)

(Based on information referring to the first quarter of 2023)

Sampling register used for the survey

Name of register:

Motor Vehicle Register

Name of organisation who maintains the register:

Swiss Federal Roads Office (FEDRO)

Frequency of update:

Once a week

Frequency of access to draw the samples:

Once a week

Arrangements for accessing the register:

Bilateral agreement between the FSO and the FEDRO in line with the Federal Statistics Act. Weekly extraction of the register at FEDRO via a protected web server.

Information obtained from the register:

Name, address, registration number, number of seats, type of vehicle, type of body (lorries only), brand name and model, load capacity, maximum permissible laden weight, unladen weight, emission class, date of first registration of the vehicle, existence or not of a loading crane, existence or not of a hydraulic lift, existence or not of a cable winch, existence or not of a trailer coupling, tank volume (cistern volume), number of axles (tractive vehicle only), license plate number, existence or not of a particle filter, odometer reading from the last roadworthiness test, date of the last roadworthiness test, CO_2 emission, Enterprise Identification Number, type of fuel, energy efficiency category.

Used in stratification: type of vehicle and maximum permissible laden weight.

Data reported by vehicle owners: type of transport (hire or reward / own account), reasons of non-utilisation of the vehicle during the whole survey week (if any), transit countries (if any), type of goods, weight of goods, type of freight (bulk, container, palletised, etc.), type of dangerous goods (if any), postal codes of loading and unloading places, country codes of loading and unloading places (only if abroad), odometer readings at the points of loading and unloading

Procedure for reminders:

First reminder: sent out 2 weeks after the deadline.

Second reminder: sent 3 weeks after the first one.

For both reminders, all material is sent again (questionnaire, letter, instructions).

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Light vehicles with a maximum permissible laden weight equal or less than 3 500 kg and special vehicles (e.g., agricultural tractors, fire engines, military vehicles). Electric vehicles up to 4.25 tonnes, whose weight over 3.5 tonnes is only due to the additional weight of the battery, are also excluded. In 2013 and 2023, however, a special survey on light goods vehicles was carried out. This survey is planned to be conducted in a ten-year interval.

Light Vehicles with a maximum permissible laden weight equal or less than 3 500 kg (e.g., vans) cover about 70 % of the vehicle-km and about 5 % of the performance (tkm) in road freight transport in Switzerland.

Time unit:

One week

Time unit of quarter 1 of 2023 included in the survey:

13 weeks

Stratification:

The sample is stratified according to the week of survey, the type of vehicle and the maximum permissible laden weight (MPLW). Lorries are divided into 4 strata (351, 352, 353, 354). Road tractors form the 5th stratum (381).

    351: MPLW 3 501–7 500 kg

    352: MPLW 7 501–18 000 kg

    353: MPLW 18 001–26 000 kg

    354: MPLW >26 000 kg

This decomposition is applied to each week and the coding sent to Eurostat corresponds to the survey week number followed by the preceding code. For instance, a road tractor with information during the week 22 is in the stratum 22381.

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers, swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: all commodity types transported on a vehicle are recorded.

Multi stop: by consignments, i.e., information is collected on the basis of a description of each basic transport operation (with additional details on unladen journeys). The journey data are derived from the goods data.

Collection/delivery: The transported goods weight is assumed to increase/decrease steadily between the first and last stop of collection/delivery tonne-km = (0.5 * goods weight * distance of collection/delivery).

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S+S'}$

N = number of vehicles in the register (in a stratum)

S = number of questionnaires used in analysis (in A1 dataset)

S'= number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.)

This initial grossing factor is then adjusted by a raking ratio procedure (calibration method). The external data sources used for this method are the total number of vehicles by strata for the survey week and the total distance by class of distance travelled weekly by quarter (data extracted from the LSVA tax).

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel. Data on emission class and average CO2-emissions are available from the register.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO) (Vehicle operator's NACE category of activity is obtained by matching name and address of the vehicle owner to the business register. For about 15% of the vehicles, no NACE category can be defined due to lacking matches)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	685 835	694 300
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 940	8 908
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	984	992
Number of cases classified as non-respondents	3 383	3 483
Number of cases where sample register information was wrong and response could not be used	732	808
Number of questionnaires used in analysis	3 841	3 625

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

United Kingdom (national transport)

Organisation responsible for the conducting the survey:

Department for Transport (DfT)

(Based on information referring to the first quarter of 2017)

Sampling register used for the survey

Name of register:

Driver Vehicle Licensing Agency (DVLA) for GB & NI-registered vehicles

Name of organisation who maintains the register:

DVLA

Frequency of update:

Ongoing

Frequency of access to draw the samples:

Quarterly (for both Great Britain and Northern Ireland vehicles)

Arrangements for accessing the register:

A quarterly sample is drawn from DVLA licensing records based on an agreed specification for the proportion of vehicles required in each stratum, which are then divided into the desired weekly sample. The process is the same for both GB & NI vehicles but NI vehicles are administered and sampled separately.

Information obtained from the register:

Name and contact details of the vehicle owner; fuel type; Gross train weight; NUTS1 region of registration; propulsion code; wheel plan code; taxation class; body type code; tipper; year of first registration, unladen weight and articulated or rigid vehicle type.

Information used in stratification: NUTS1 region of registration and gross train weight, articulated or rigid vehicle type.

Procedure for reminders:

First reminder: sent 2.5 weeks after the end of the survey week by email.

Second reminder: sent 5.5 weeks after the end of the survey week by email.

Third reminder: 7.5 weeks after the end of the survey week by phone.

The response rate is adequate.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Vehicles weighing less than 3.5 tonnes maximum permissible laden weight and certain vehicles with invalid body type codes e.g., street cleansing vehicles, ambulances, snow ploughs, etc.

Time unit:

1 week

Time unit of quarter 1 of 2017 included in the survey:

All (13 weeks)

Stratification:

The sample is stratified according to vehicle type and traffic area.

1.   Vehicle weight group:

- Rigid: 3.5 to 7.5 tonnes, 7.5 to 15 tonnes, 15 to 18 tonnes, 18 to 26 tonnes, over 26 tonnes
- Articulated: 3.5 to 26 tonnes, 26 to 34 tonnes, 34 to 38 tonnes, 38 to 40 tonnes, over 40 tonnes

2.   Government Office Region (NUTS1)

- North East
- North West
- Yorkshire & Humberside
- East Midlands
- West Midlands
- East of England
- London
- South East
- South West
- Wales
- Scotland
- Northern Ireland

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e., containers, swap bodies and pallets are included.

Recording journey data sent to Eurostat:

Single stop: If a vehicle is carrying more than one type of good, when the largest component is at least 75 % of the total consignment weight the largest component determines the type of good carried. Otherwise, the type of good will be recorded as groupage. The weight is the sum of all the consignments for the journey.

Multi stop: Where there are fewer than 4 stops, we collect the details of each leg. We provide records, coded as journey type 1, because our system requires that the journey to consignment relationship is a 1 to 1 relationship.

Collection/delivery: As for a single stop journey, if a vehicle is carrying more than one type of good, when the largest component is at least 75 % of the total consignment weight the largest component determines the type of good carried. Otherwise, the type of good will be recorded as groupage.

For collection journeys, weight=goods collected.

For delivery journeys, weight=goods delivered.

For journeys with both deliveries and collections, but more deliveries, weight=goods delivered.

For journeys with both deliveries and collections, but more collections, weight=goods collected.

For journeys with equal deliveries and collections, weight=goods delivered + goods collected.

Other variables: For Northern Ireland registered vehicles' activity, the domestic survey methodology is used for recording international activity.

Calculation of weighting factors:

Weighting factor $= 13 \times \dfrac{N}{S}$

N = Number of vehicles in the register (in a stratum)

S = Achieved sample count (in a stratum)

Two strata have relatively small sample sizes (artics up to 26 tonnes and artics 38-40 tonnes). To smooth the estimates, these strata have been merged with two others (artics 26-34 tonnes and artics 34-38 respectively) and the weighting factor calculated as:

w1 = N1/n1.[(N1+N2) / (r1.N1/n1+r2.N2/n2)]

N1=number of vehicles in the register in stratum 1

n1=number of vehicles sampled in stratum 1

r1=achieved sample count in stratum 1

The achieved sample includes the following returns:

3. Vehicles used during the survey week

4. Vehicles unused during the survey week for the following reasons:

- On holiday
- In for MOT, service or repair
- With no driver
- With no work
- Doing site work
- Scrapped vehicles
- Unlicensed vehicles

The achieved sample excludes the following returns:

- Vehicle sold during the reference week
- Vehicle stolen during the reference week
- Vehicle on multi-hire
- Form not delivered
- Refusal
- Respondent excused (for example when vehicle only used for personal use)

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel used and fuel consumption. Air pollution emissions caused by road freight is estimated based on the fuel purchased data collected.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)

• Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

• type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2018	2019
Total number of relevant goods vehicles in the country	407 721	406 266
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	13 940	13 918
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	3 047	2 681
Number of cases classified as non-respondents	2 354	2 518
Number of cases where sample register information was wrong and response could not be used	510	553
Number of questionnaires used in analysis	8 029	8 166

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

United Kingdom (international transport)

Organisation responsible for the conducting the survey:

Department for Transport (DfT)

(Based on information referring to the first quarter of 2017)

Sampling register used for the survey

Name of register:

Applications and Decisions' register

Name of organisation who maintains the register:

Traffic Area Offices

Frequency of update:

Continuous

Frequency of access to draw the samples:

Monthly

Arrangements for accessing the register:

An extract detailing those hauliers issued with a standard international licence is provided electronically to the road freight team each month.

Information obtained from the register:

Address details of firms operating heavy goods vehicles that have been granted a licence to undertake international journeys.

Firms are subsequently asked to provide information about their expected number of international trips; which is used in the stratification of the sample.

Procedure for reminders:

First reminder: sent 2.5 weeks after the end of the survey week by email.

Second reminder: sent 5.5 weeks after the end of the survey week by email.

Third reminder: 7.5 weeks after the end of the survey week by phone.

The response rate is adequate.

Sampling methodology

Statistical unit:

Transport firm

Types of units excluded:

Organisations not holding, or not requiring international licences (e.g., armed forces, emergency services, breakdown recovery vehicles).

Time unit:

Time periods differ according to size of firm (see stratification below).

Time unit of quarter 1 of 2017 included in the survey:

All (13 weeks)

Stratification:

The sample is stratified according to the number of international trips expected to be undertaken by a firm:

Group	Expected number of international trips a year	Time period for survey	Frequency of survey
1	1 001+	1 day	4 weeks
3	401 – 1 000	3 days	12.5 weeks
6	101 – 400	1 week	25 weeks
12	25 – 100	2 weeks	50 weeks
24	10 – 24	4 weeks	100 weeks

Recording of weight of goods:

Gross-gross weight of goods is collected, i.e., containers, swap bodies and pallets are included.

Recording of journey data sent to Eurostat:

Multi stop, multi stop, collection/delivery: No simplifying assumptions because the data is collected at commodity level.

Calculation of weighting factors:

Weighting factor = P * K

P = design weight for a given firm group

K = population figure for a given route * number of sample trips leaving the UK via that route

Additional (optional) variables collected compared to the legal requirements:

Environmental impact-related variables:

Type of fuel. Air pollution emissions caused by road freight is estimated based on the fuel purchased data collected via the national survey.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2018	2019
Total number of relevant goods vehicles in the country	2 814	3 404
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	1 590	2 210
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	0	0
Number of cases classified as non-respondents	3	2
Number of cases where sample register information was wrong and response could not be used	0	0
Number of questionnaires used in analysis	1 927	2 599

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

North Macedonia

Organisation responsible for the conducting the survey:

State Statistical Office

(Based on information referring to the first quarter of 2019)

Sampling register used for the survey

Name of register:

Register of road freight transport survey

Name of organisation who maintains the register:

Ministry of Interior Affairs

Frequency of update:

Quarterly updated

Frequency of access to draw the samples:

Once a year

Arrangements for accessing the register:

The Ministry of Interior Affairs submits the data for registered freight vehicles. After receiving the data of registered vehicles, the IT Department creates a database with the required data and then merges them with the Statistical Business Register and other databases in order to obtain the addresses and other data on vehicle owners and their activity.

Information obtained from the register:

Vehicles registration number, year of first registration, maximum permissible laden weight, number of axes, capacity for loading, address, type of vehicle, name of owners, region in country, purpose of the vehicle.

Procedure for reminders:

First reminder by written letter and second reminder one week later by phone or by written letter.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Agricultural vehicles; military vehicles; vehicles older than 30 years; vehicles with maximum permissible laden weight less than 3.5 tonnes

Time unit:

1 week

Time unit of quarter 1 of 2019 included in the survey:

13 weeks

Stratification:

The sample for each stratum was chosen by a systematic random method. The systematic selection made it combination of the types of the vehicles, of allowed load capacity and information whether the owner of the vehicle is natural or legal person. All vehicles are classified under the category of allowed load capacity to 5 load categories:

1.   3 500 – 4 999 kg of load capacity

2.   5 000 – 6 999 kg of load capacity

3.   7 000 – 9 999 kg of load capacity

4.   10 000 – 14 999 kg of load capacity

5.   15 000 kg and over of load capacity

The selection of sample units is proportional within each stratum.

Additional variables collected compared to the legal requirements:

Environmental impact related variables:

Type of fuel used and fuel consumption.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (NO)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)
- vehicle empty kilometres (NO)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (NO)

A3. Goods-related variables:

- type of freight (Cargo types) as defined in the Regulation (NO)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	:	:
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	:	:
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	:	:
Number of cases classified as non-respondents	:	:
Number of cases where sample register information was wrong and response could not be used	:	:
Number of questionnaires used in analysis	:	:

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Montenegro

Organisation responsible for the conducting the survey:

Statistical Office of Montenegro (MONSTAT)

(Based on information referring to the fourth quarter of 2019)

Sampling register used for the survey

Name of register:

Database of registered road motor vehicles

Name of organisation who maintains the register:

Ministry of Interior

Frequency of update:

Quarterly

Frequency of access to draw the samples:

Once a year

Arrangements for accessing the register:

Agreement between the Statistical Office of Montenegro – MONSTAT and the Ministry of the Interior for providing statistical information for survey road freight traffic. After receiving the data on registered vehicles, it creates a database with necessary data.

Information obtained from the register:

Registration number, date of registration, name and address of owner of vehicle, mark of vehicle, type of vehicle and model vehicle, maximum permissible weight, weight of empty vehicle, number of axles, fuel type, year of production.

Procedure for reminders:

Interviewers visit the reporting unit before the reference week and deliver them a flyer with a brief description of survey informing them that they are in a survey sample. Seven days after the end of reference week, the interviewer visits the reporting unit for collecting the data.

Sampling methodology

Statistical unit:

Tractive vehicle

Types of units excluded:

Agricultural vehicles; military vehicles; vehicles older than 30 years; vehicles with maximum permissible laden weight less than 3.5 tonnes.

Time unit:

One week

Time unit of quarter 4 of 2019 included in the survey:

13 weeks

Stratification:

The survey of road freight transport is done on the basis of a stratified sample. The stratum is a combination of the types of the vehicles, of allowed load capacity and information whether the owner of the vehicle is natural or legal person. It was done by using the optimal allocation of variables allowed load capacity. All vehicles are classified under the category of "allowed load capacity" to 6 load categories:

Class 1: vehicles up to 4 999 kg;

Class 2: vehicles from 5 000 kg to 9 999 kg;

Class 3: vehicles from 10 000 kg to 11 999 kg;

Class 4: vehicles from 12 000 kg 14 999 kg;

Class 5: vehicles of 15 000 kg 19 999 kg;

Class 6: vehicles from 20 000+ kg.

Recording of weight of goods:

Gross weight of goods is collected, i.e., containers, swap bodies and pallets are excluded.

Recording of journey data sent to Eurostat:

Single stop: In case of carrying more than one type of goods, respondents can record only the type of good with the largest weight.

Multi stop: recorded by vertical stages.

Collection/delivery: In case of carrying more than one type of goods, respondents can record only the type of good with the largest weight. Collection/delivery journeys are recorded only for national transport.

Calculation of weighting factors:

$$\text{Weighting factor} = \frac{N}{S + S'}$$

N = number of vehicles in the register (in a stratum).

S = number of questionnaires used in analysis.

S′ = number of vehicles for which no activity was recorded, but vehicles could be considered as active (holiday, no work, etc.), scrapped, final or temporally out of operation, not performing transport activity anymore.

Additional (optional) variables collected compared to the legal requirements:

Environmental impact related variables: none.

A1. Vehicle-related variables:

- possibility of using vehicles for combined transport (YES)
- vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)
- vehicle empty kilometres (YES)

A2. Journey-related variables:

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)
- place of loading, if any, of the road transport vehicle on another means of transport (NO)
- place of unloading, if any, of the road transport vehicle from another means of transport (NO)
- Degree of loading: situation 'fully loaded' (procedure 2) or 'not fully loaded' (procedure 1) of the goods road transport vehicle during the journey in question, in terms of maximum volume of space used during the journey (procedure 0 = by convention for unladen journeys) (YES)

A3. Goods-related variables:

• type of freight (Cargo types) as defined in the Regulation (YES)

Main figures	2022	2023
Total number of relevant goods vehicles in the country	:	:
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	:	:
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	:	:
Number of cases classified as non-respondents	:	:
Number of cases where sample register information was wrong and response could not be used	:	:
Number of questionnaires used in analysis	:	:

More information in Country and table specific notes:

https://circabc.europa.eu/ui/group/0c7a12bf-2645-4509-9339-a266f3e1e44d/library/09be2be6-defd-4cb4-818c-134ded0107ca?p=1&n=10&sort=modified_DESC

Summary tables

Table A – Scope of surveys

Country	Sampling base		Vehicle types not covered		
	Register of tractive vehicles maintained by the NSI or national organisations (¹)	Other	Agricultural, military and public service vehicles	Vehicles over or below certain limits	Other vehicles not covered
Belgium	Yes	-	Yes	Vehicles < 1 tonnes LC	Vehicles not destined to the transport of goods
Bulgaria	Yes	-	Yes	Vehicles < 6 tonnes MPLW	Vehicles with dimensions exceeding permitted limits of the country. Vehicles not destined to the transport of goods.
Czechia	Yes	-	Yes	Vehicles < 2 tonnes LC	Vehicles with oversized load
Denmark	Yes	Road Worthiness Test (RWT)	-	Vehicles < 6 tonnes MPLW	Personally owned vehicles
Germany	Yes	-	Yes	Lorries ≤ 3.5 tonnes LC or ≤ 6 tonnes MPLW if LC not present Vehicles > 30 years	Vehicles not destined to the transport of goods (special purpose lorries, mobile cranes)
Estonia	Yes	-	Yes	Lorries < 3.5 tonnes LC Vehicles > 25 years	Special purpose vehicles
Ireland	Yes	-	-	Vehicles < 2 tonnes unladen weight	Vehicles not destined to the transport of goods. Vehicles taxed as non-commercial vehicles

Methodologies used in road freight transport surveys in Member States, EFTA and 3 Candidate countries /eurostat

Country	Sampling base		Vehicle types not covered		
	Register of tractive vehicles maintained by the NSI or national organisations (¹)	Other	Agricultural, military and public service vehicles	Vehicles over or below certain limits	Other vehicles not covered
Greece	Yes	-	Yes	Vehicles <3.5 tonnes LC and < 6 tonnes MPLW	-
Spain	Yes	-	Yes	Vehicles <3.5 tonnes LC and < 6 tonnes MPLW	Special vehicles with very high weight capacity or dimensions which need a special registration number. Vehicles not destined to the transport of goods
France	Yes	-	Yes	Lorries > 32.5 tonnes LC Tractors > 44.5 tonnes LC Vehicles < 3.5 tonnes MPLW Vehicles > 15 years	Special purpose vehicles. Vehicles belonging to owners involved in activities such as driving schools, fairgrounds, etc. Vehicles that didn't have a compulsory vehicle check within 15 months before the sample selection date and that were not first registered during those 15 months.
Croatia	Yes	-	Yes	Vehicles < 3.5 tonnes LC	Special purpose vehicles
Italy	Yes	Tax vehicle register from the Ministry of Economy and Finance Road freight survey register	Yes	"Vehicles < 3.5 tonnes LC Vehicles > 11 years"	Vehicles not destined to the transport of goods
Cyprus	Yes	-	-	Vehicles < 3 tonnes LC	-
Latvia	Yes	Register of vehicles	Yes	"Vehicles < 3.5 tonnes LC Vehicles > 25 years "	Special purpose vehicles
Lithuania	Yes	Data on road freight vehicles, which passed a roadworthiness test		Vehicles < 6 tonnes MPLW Vehicles > 25 years	Special purpose vehicles Vehicles not used for goods carriage

Country	Sampling base		Vehicle types not covered		
	Register of tractive vehicles maintained by the NSI or national organisations (¹)	Other	Agricultural, military and public service vehicles	Vehicles over or below certain limits	Other vehicles not covered
Luxembourg	Yes	-	Yes	Vehicles < 3.5 tonnes LC	Vehicles with dimensions exceeding permitted limits of the country. Vehicles used for breakdown services
Hungary	Yes	-	Yes	Vehicles < 3.5 tonnes LC	Special purpose vehicles
Malta	-	-	-	-	-
Netherlands	Yes	National Business Register Lease Registers from the Tax Authorities	-	Vehicles ≤ 3.5 tonnes MPLW Vehicles > 25 years	Vehicles not used for goods transport on public roads. Passenger vehicles (buses, campers)
Austria	Yes	Statistical Business Register (BR)	Yes	Vehicles < 2 tonnes LC Vehicles > 30 years	Fire brigade, driving schools, private household, other membership organisations not elsewhere classified, exterritorial organisations
Poland	Yes	-	Yes	"Vehicles ≤ 3.5 tonnes MPLW and < 1.5 tonnes LC" Vehicles > 25 years	"Special purposes vehicles Vehicles not adjusted to carry goods"
Portugal	Yes	-	Yes	Vehicles ≤ 3.5 tonnes MPLW	Vehicles not destined to the transport of goods
Romania	Yes	-	Yes	Vehicles < 3.5 tonnes LC Vehicles > 25 years	-
Slovenia	Yes	-	Yes	Vehicles < 2 tonnes LC	Special purpose vehicles
Slovakia	Yes	Register of operators	-	-	-
Finland	Yes	National: Vehicle Register International: Membership register	Yes	Vehicles ≤ 3.5 tonnes MPLW	Special purpose vehicles

Country	Sampling base		Vehicle types not covered		
	Register of tractive vehicles maintained by the NSI or national organisations (¹)	Other	Agricultural, military and public service vehicles	Vehicles over or below certain limits	Other vehicles not covered
Sweden	Yes	Commercial Traffic Register (CTR) Central Register of Corporation (FDB) Vehicle-kilometre database (VKD)	Yes	Vehicles < 3.5 tonnes LC Vehicles ≥ 30 years	"Special purpose vehicles Vehicles owned by companies not registered in the Central Register of Corporations"
Liechtenstein	Yes	Office of Motor Vehicles	-	Vehicles < 6 tonnes MPLW	Vehicles operating in LI and CH only
Norway	Yes	-	-	Vehicles < 3.5 tonnes LC Vehicles ≥ 35 tonnes MPLW Vehicles > 25 years	Special purpose vehicles
Switzerland	Yes	-	Yes	Vehicles ≤ 3.5 tonnes MPLW	"Special purpose vehicles Electric vehicles up to 4.25 tonnes"
United Kingdom	Yes	National: Driver Vehicle Licensing Agency for GB-registered vehicles and Driver Vehicle Licensing for Northern Ireland registered vehicles International: Application and Decisions' Register from Traffic Area Offices	Yes	Vehicles < 3.5 tonnes MPLW (national transport only)	Special purpose vehicles
North Macedonia	Yes	-	Yes	"Vehicles < 3.5 tonnes MPLW Vehicles > 30 years"	Special purpose vehicles
Montenegro	Yes	-	Yes	"Vehicles < 3.5 tonnes MPLW Vehicles > 25 years"	-

(¹) Ministry of Transport or other national organisations.

Table B – Sampling rate in space (of vehicles, firms), 2023

Country	Statistical unit	Number of statistical units in the population	Number of statistical units in the sample	"Sampling rate in space (%)"
Belgium	Tractive vehicle	107 080	18 879	17.6
Bulgaria	Tractive vehicle	77 847	16 000	20.6
Czechia	Tractive vehicle	167 324	17 960	10.7
Denmark	Tractive vehicle	37 207	8 896	23.9
Germany	Tractive vehicle	573 665	185 881	32.4
Estonia	Tractive vehicle	16 959	6 240	36.8
Ireland	Tractive vehicle	172 378	6 450	3.7
Greece	Tractive vehicle	91 479	8 465	9.3
Spain	Tractive vehicle	383 322	53 000	13.8
France	Tractive vehicle	412 459	60 449	14.7
Croatia	Tractive vehicle	38 212	10 400	27.2
Italy	Tractive vehicle	220 178	47 210	21.4
Cyprus	Tractive vehicle	15 321	3 372	22.0
Latvia	Tractive vehicle	22 666	6 240	27.5
Lithuania	Tractive vehicle	69 442	12 892	18.6
Luxembourg	Tractive vehicle	9 678	8 556	88.4
Hungary	Tractive vehicle	84 259	47 768	56.7
Malta	-	-	-	-
Netherlands	Tractive vehicle	140 398	39 501	28.1
Austria	Tractive vehicle, Local unit	69 231	27 280	39.4
Poland	Tractive vehicle	1 453 814	100 046	6.9
Portugal	Tractive vehicle	71 444	17 777	24.9
Romania	Tractive vehicle	147 791	32 216	21.8
Slovenia	Tractive vehicle	30 814	8 333	27.0
Slovakia	Tractive vehicle	175 520	13 000	7.4
Finland	Tractive vehicle	103 501	10 000	9.7
Sweden	Tractive vehicle	66 966	11 693	17.5
Liechtenstein ([1])	Tractive vehicle	258	314	121.7
Norway	Tractive vehicle	35 386	7 461	21.1
Switzerland	Tractive vehicle	694 300	8 908	1.3
United Kingdom ([2])	Tractive vehicle (national)	406 266	13 918	3.4
	Transport firm (international)	3 404	2 210	64.9
North Macedonia	Tractive vehicle	:	:	-
Montenegro	Tractive vehicle	:	:	-

([1]) Some vehicles may be surveyed several times in the same quarter; 2013 data instead of 2023.
([2]) 2019 data instead of 2023.
(-) not applicable.
(:) not available.

The sampling rate in space (%) has been obtained as follows: 'Number of statistical units in the sample' divided by 'Number of statistical units in the population'; the result multiplied by 100.

Table C – Time-based sampling rate, 2023

Country	Time unit	Number of time units in the year	Number of time units represented in the survey in the year	"Time-based sampling rate (%)"
Belgium	Week	52	52	1.92
Bulgaria	Week	52	52	1.92
Czechia	Week	52	52	1.92
Denmark	Week	52	52	1.92
Germany	Half week	104	104	0.96
Estonia	Week	52	52	1.92
Ireland	Week	52	52	1.92
Greece	Week	52	52	1.92
Spain	Week	52	52	1.92
France	Week	52	52	1.92
Croatia	Week	52	52	1.92
Italy	Week	52	52	1.92
Cyprus	Week	52	52	1.92
Latvia	Week	52	52	1.92
Lithuania	Week	52	52	1.92
Luxembourg	Week	52	28	3.57
Hungary	Week	52	52	1.92
Malta	-	-	-	-
Netherlands	Week	52	52	1.92
Austria	Week	52	52	1.92
Poland	Week	52	52	1.92
Portugal	Week	52	52	1.92
Romania	Week	52	52	1.92
Slovenia	Week	52	52	1.92
Slovakia	Week	52	52	1.92
Finland ([1])	3 or 4 days	52	52	1.92
Sweden	Week	52	52	1.92
Liechtenstein ([2])	Week	52	24	4.17
Norway	Week	52	52	1.92
Switzerland	Week	52	52	1.92
United Kingdom ([3])	Week (national)	52	52	1.92
	Dependent on the firm size (international transport)	-	-	-
North Macedonia	Week	52	52	1.92
Montenegro	Week	52	52	1.92

([1]) 3 days for non-members of SKAL-S, 4 days for members of SKAL-S. These days make a period of one week. Every other week starts with 3 days and every other week starts with 4 days.
([2]) 2013 data instead of 2023.
([3]) 2019 data instead of 2023.
(-) not applicable.

The time-based sampling rate (%) has been obtained as follows: 100 divided by 'Number of time units represented in the survey in the year'.

Table D – Global sampling rates in space and in time, 2023

Country	Collection unit	Sampling rate in space (%)	Sampling rate in time (%)	Global sampling rate in space and in time (%)
Belgium	Vehicle-week	16.6	1.92	0.32
Bulgaria	Vehicle-week	19.3	1.92	0.37
Czechia	Vehicle-week	10.9	1.92	0.21
Denmark	Vehicle-week	23.2	1.92	0.45
Germany	Vehicle-half week	32.8	0.96	0.32
Estonia	Vehicle-week	33.3	1.92	0.64
Ireland	Vehicle-week	15.9	1.92	0.30
Greece	Vehicle-week	9.3	1.92	0.18
Spain	Vehicle-week	14.7	1.92	0.28
France	Vehicle-week	14.6	1.92	0.28
Croatia	Vehicle-week	28.5	1.92	0.55
Italy	Vehicle-week	21.4	1.92	0.41
Cyprus	Vehicle-week (national)	22.6	1.92	0.43
Latvia	Vehicle-week	28.0	1.92	0.54
Lithuania	Vehicle-week	20.1	1.92	0.39
Luxembourg	Vehicle-week	90.8	3.57	3.24
Hungary	Vehicle-week	58.1	1.92	1.12
Malta	-	-	-	-
Netherlands	Vehicle-week	28.2	1.92	0.54
Austria	Vehicle-week	39.6	1.92	0.76
Poland	Vehicle-week	7.1	1.92	0.14
Portugal	Vehicle-week	24.3	1.92	0.47
Romania	Vehicle-week	22.3	1.92	0.43
Slovenia	Vehicle-week	27.5	1.92	0.53
Slovakia	Vehicle-week	7.3	1.92	0.14
Finland	Vehicle-week	9.5	1.92	0.18
Sweden	Vehicle-week	17.6	1.92	0.34
Liechtenstein ([1])	Vehicle-week	121.7	4.17	5.07
Norway	Vehicle-week	20.7	1.92	0.40
Switzerland	Vehicle-week	1.3	1.92	0.03
United Kingdom ([2])	Vehicle-week (national)	3.4	1.92	0.07
	Dependent on the firm size (international transport)	-	-	-
North Macedonia	Vehicle-week	-	1.92	-
Montenegro	Vehicle-week	-	1.92	-

([1]) 2013 data instead of 2023.
([2]) 2019 data instead of 2023.
(-) not applicable.

The global sampling rate has been obtained by multiplying the sampling rate in space by the sampling rate in time.

Table E – Response rate, 2022-2023

Country	Response rate (in %)	
	2022	**2023**
Belgium	45.50	45.54
Bulgaria	60.61	61.99
Czechia	89.09	88.17
Denmark	97.80	97.54
Germany	92.04	91.37
Estonia	82.46	82.18
Ireland	40.99	40.82
Greece	62.86	53.88
Spain	97.99	98.93
France	69.64	69.91
Croatia	81.04	82.13
Italy	52.49	55.11
Cyprus	85.79	84.76
Latvia	67.71	67.82
Lithuania	73.78	81.13
Luxembourg	87.18	90.02
Hungary	78.16	78.91
Malta	:	:
Netherlands	83.59	84.49
Austria	98.02	98.12
Poland	67.51	67.18
Portugal	88.74	86.87
Romania	95.32	95.34
Slovenia	65.28	65.58
Slovakia	85.18	84.81
Finland	54.22	56.22
Sweden	57.28	59.24
Liechtenstein (¹)	99.07	97.77
Norway	97.76	97.35
Switzerland	62.16	60.90
United Kingdom (national) (²)	83.11	81.91
United Kingdom (international) (²)	99.81	99.91
North Macedonia	:	:
Montenegro	:	:

(¹) Based on 2012-2013 data.
(²) Based on 2018-2019 data.
(:) not available.

The response rate (%) is defined as the number of questionnaires dispatched minus those classified as non-response, divided by the number of questionnaires dispatched.

Table F – Register quality rate, 2022-2023

Country	Register quality (in %)	
	2022	**2023**
Belgium	92.25	93.09
Bulgaria	71.28	75.33
Czechia	87.22	88.32
Denmark	93.94	94.80
Germany	94.46	94.21
Estonia	72.28	72.21
Ireland	96.84	96.54
Greece	94.24	91.58
Spain	67.95	67.52
France	90.05	90.68
Croatia	88.88	89.50
Italy	89.25	88.72
Cyprus	82.30	73.13
Latvia	97.37	97.80
Lithuania	88.07	82.79
Luxembourg	87.36	74.27
Hungary	81.63	81.27
Malta	:	:
Netherlands	92.58	91.80
Austria	85.84	85.08
Poland	78.07	81.87
Portugal	95.39	95.62
Romania	93.31	93.45
Slovenia	91.65	91.07
Slovakia	91.01	90.16
Finland	91.11	90.80
Sweden	94.63	93.73
Liechtenstein ([1])	100.00	98.37
Norway	94.67	94.31
Switzerland	86.83	85.11
United Kingdom (national) ([2])	95.60	95.15
United Kingdom (international) ([2])	100.00	100.00
North Macedonia	:	:
Montenegro	:	:

([1]) Based on 2012-2013 data.
([2]) Based on 2018-2019 data.
(:) not available.

The register quality (in %) is defined as the number of usable questionnaires (i.e., number of questionnaires dispatched minus number of questionnaires classified as non-response minus number of questionnaires where sample register information was wrong) divided by the number of questionnaires dispatched minus those classified as non-response.

Table G – Precision of results in terms of standard error for total transport (on tonnes), 2022-2023

Country	Standard error (tonnes), in %	
	2022	2023
Belgium	3.12	3.09
Bulgaria	8.74	7.75
Czechia	3.38	3.66
Denmark	4.77	4.72
Germany	0.82	0.84
Estonia	8.70	8.95
Ireland	3.52	3.97
Greece	13.76	14.48
Spain	1.87	1.87
France	1.56	1.47
Croatia	4.43	4.27
Italy	2.45	2.29
Cyprus	7.14	6.68
Latvia	5.83	5.60
Lithuania	2.90	3.47
Luxembourg	3.13	3.14
Hungary	1.89	1.89
Malta	-	-
Netherlands	1.78	1.76
Austria	2.06	2.04
Poland	2.34	2.50
Portugal	3.61	3.75
Romania	2.98	2.82
Slovenia	5.55	6.03
Slovakia	5.35	6.89
Finland	6.07	7.63
Sweden	4.59	4.73
Liechtenstein	-	-
Norway	4.36	4.82
Switzerland	5.34	5.26
United Kingdom	-	-
North Macedonia	-	-
Montenegro	-	-

(-) not applicable.

Percentage standard error of estimate (95 % confidence).

See the manual 'Road freight transport methodology', i.e., the reference manual for the implementation of Regulation (EU) No 70/2012 on statistics on the carriage of goods by road. Chapters 3 and 7 provide more details on the methodology used for the calculation of the percentage standard error.

Reference: Commission Regulation (EC) No 642/2004 on precision requirements for data collected in accordance with Regulation (EU) No 70/2012 on statistical returns in respect of the carriage of goods by road.

Table H – Precision of results in terms of standard error for total transport (on tonne-kilometres), 2022-2023

Country	Standard error (tkm), in %	
	2022	**2023**
Belgium	3.43	2.96
Bulgaria	4.35	4.08
Czechia	2.34	2.46
Denmark	3.24	3.11
Germany	0.63	0.66
Estonia	6.11	6.35
Ireland	3.34	3.65
Greece	5.79	6.50
Spain	1.73	1.74
France	1.11	1.06
Croatia	4.13	4.08
Italy	1.78	1.75
Cyprus	5.87	5.03
Latvia	3.76	3.99
Lithuania	2.39	2.12
Luxembourg	2.60	2.55
Hungary	1.46	1.61
Malta	-	-
Netherlands	1.41	1.44
Austria	1.93	1.77
Poland	1.66	1.69
Portugal	3.85	4.20
Romania	1.88	1.85
Slovenia	3.36	3.69
Slovakia	3.93	4.20
Finland	6.09	6.04
Sweden	4.26	4.21
Liechtenstein	-	-
Norway	2.56	2.63
Switzerland	4.81	4.75
United Kingdom	-	-
North Macedonia	-	-
Montenegro	-	-

(-) not applicable.

Percentage standard error of estimate (95 % confidence).

See the manual 'Road freight transport methodology', i.e., the reference manual for the implementation of Regulation (EU) No 70/2012 on statistics on the carriage of goods by road. Chapters 3 and 7 provide more details on the methodology used for the calculation of the percentage standard error.

Reference: Commission Regulation (EC) No 642/2004 on precision requirements for data collected in accordance with Regulation (EU) No 70/2012 on statistical returns in respect of the carriage of goods by road.

Table I – Precision of results in terms of standard error for total transport (on kilometres loaded), 2022-2023

Country	Standard error (km loaded), in %	
	2022	2023
Belgium	4.40	2.32
Bulgaria	3.80	3.55
Czechia	1.75	1.79
Denmark	2.05	1.96
Germany	0.50	0.51
Estonia	5.16	4.98
Ireland	2.42	2.74
Greece	4.51	5.22
Spain	1.36	1.36
France	0.87	0.83
Croatia	3.23	3.23
Italy	1.30	1.27
Cyprus	5.35	4.62
Latvia	3.18	3.29
Lithuania	1.99	1.74
Luxembourg	2.05	2.00
Hungary	1.18	1.27
Malta	-	-
Netherlands	1.05	1.05
Austria	1.54	1.46
Poland	1.23	1.25
Portugal	2.73	2.77
Romania	1.67	1.65
Slovenia	2.69	2.89
Slovakia	2.84	3.03
Finland	4.29	4.25
Sweden	2.96	2.68
Liechtenstein	-	-
Norway	2.07	2.08
Switzerland	3.02	3.08
United Kingdom	-	-
North Macedonia	-	-
Montenegro	-	-

(-) not applicable.

Percentage standard error of estimate (95 % confidence).

See the manual 'Road freight transport methodology', i.e., the reference manual for the implementation of Regulation (EU) No 70/2012 on statistics on the carriage of goods by road. Chapters 3 and 7 provide more details on the methodology used for the calculation of the percentage standard error.

Reference: Commission Regulation (EC) No 642/2004 on precision requirements for data collected in accordance with Regulation (EU) No 70/2012 on statistical returns in respect of the carriage of goods by road.

Table J – Optional variables provided by the reporting countries

Country	A1. Vehicle-related variables			A2. Journey-related variables				A3. Goods-related variables
	Possibility of using vehicles for combined transport	Vehicle operator's NACE category of activity	Vehicle empty kilometres	Axle configuration	Place of loading of the road transport vehicle on another means of transport	Place of unloading of the road transport vehicle from another means of transport	Degree of loading of the vehicle	Type of cargo
Belgium	x	-	x	-	-	-	x	x
Bulgaria	x	-	x	x	x	x	x	x
Czechia	-	x	x	x	-	-	-	x
Denmark	x	x	x	x	-	-	x	-
Germany	-	-	x	x	x	x	x	x
Estonia	-	x	x	x	-	-	x	x
Ireland	-	-	x	x	x	x	-	x
Greece	x	x	x	x	x	x	x	x
Spain	-	x	x	x	x	x	x	x
France	-	x	x	x	x	x	x	x
Croatia	x	x	x	x	x	x	x	x
Italy	-	-	-	-	-	-	-	-
Cyprus	-	x	x	x	-	-	x	x
Latvia	-	x	x	x	-	-	x	x
Lithuania	x	x	x	x	x	x	x	x
Luxembourg	-	x	x	x	-	-	-	x
Hungary	x	x	x	-	-	-	-	x
Malta	-	-	-	-	-	-	-	-
Netherlands	-	x	x	-	x	x	-	x
Austria (¹)	-	x	x	x	x	x	x	x
Poland	x	x	x	x	x	x	x	x
Portugal	-	x	x	x	-	-	x	x
Romania	x	x	-	x	-	-	x	x
Slovenia	-	x	x	x	-	-	x	x
Slovakia	-	x	x	x	-	-	x	x
Finland	-	-	-	x	x	x	-	-
Sweden	-	x	x	x	x	x	x	x
Liechtenstein	-	x	x	x	-	-	x	x
Norway	-	x	x	x	-	-	x	x
Switzerland	-	-	x	-	-	-	-	x
United Kingdom	-	-	x	x	-	-	x	-
North Macedonia	-	-	-	-	-	-	-	-
Montenegro	x	x	x	x	-	-	x	x

(¹) Austria collects partial data on the place of loading/unloading of the road transport vehicle on/from another mean of transport.

Methodologies used in road freight transport surveys in Member States, EFTA and 3 Candidate countries

The present document describes the methods used by Member States, candidate and EFTA countries in their surveys on road freight transport statistics. Part I describes national methodologies for data collection. This information is based on the national reference metadata produced by the reporting countries. Data in these national metadata refer to the first quarter of 2023. Part II includes summary tables, with the basic information on sampling, response rate, register quality and precision of results of the surveys. Data on the registers used to draw the sample and the sampling methodology are relevant for the surveys conducted in the first quarter of 2023, while the main characteristics given for each country refer to the years 2022 and 2023, according to data availability.

For more information
https://ec.europa.eu/eurostat/

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