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Methodologies used in surveys of road freight transport in Member States, EFTA and Candidate Countries

2014 edition

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Contents

Introduction

The present document contains the methodologies used by Member States, candidate and EFTA countries for their surveys on road freight transport statistics.

This document, published in the 'Methodologies and working papers' collection as volume 3 of 'Road freight transport methodology', provides a quite extensive coverage of what is available on road transport statistics methodology.

It is set out as following:

- Part A describes national methodology for data collection. Information presented there is based on questionnaires completed by the reporting countries. These questionnaires updated the existing information up to the first quarter of 2014.

- Part B 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 2014, while the main figures given for each country refer to the years 2012 and 2013, 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 volume 1 of 'Road freight transport methodology', i.e. the Reference Manual for the implementation of the Council Regulation No 70/2012 on statistics on 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, Reference Manual for the implementation of the Council Regulation No 1172/98 on statistics on the carriage of goods by road
http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-RA-11-015-EN.pdf

I

Methodologies used in surveys of road freight transport in Member States, EFTA and Candidate Countries

Belgium

Organisation responsible for the conducting the survey: Statistics Belgium

(Based on information referring to the first quarter of 2014)

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:

1 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: 1 week

Time units of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

All tractors are surveyed. The sample for lorries is stratified according to 2 criteria: load capacity (14 classes) and type of body (8 classes); this gives 112 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 taken into account for the calculation of the tonne-kilometres is the 2/3 of the total course in loading.

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

Calculation of weighting factors:

Weighting factor $= 13 * \dfrac{N}{S}$

N = number of vehicles in the register (in a stratum)
S = number of questionnaires used in analysis (in A1 dataset)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional variables collected compared to the legal requirements:

    Environmental impact related variables: none.

    A1. Vehicle-related variables: none.

    A2. Journey-related variables: none.

    A3. Goods-related variables: none.

Main figures	2012	2013
Total number of relevant goods vehicles in the country	125 744	97 936
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	49 115	45 759
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	8 416	7 773
Number of cases classified as non-respondents	17 020	15 685
Number of cases where sample register information was wrong and response could not be used	7 833	6 941
Number of questionnaires used in analysis	15 839	15 348

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Bulgaria

Organisation responsible for the conducting the survey: National Statistical Institute

(Based on information referring to the first quarter of 2014)

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: 1 week

Time units of quarter 1 of 2014 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 county'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:

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

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.)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle.

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 (YES)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	137 987	138 213
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	4 392	4 138
Number of cases classified as non-respondents	4 829	5 109
Number of cases where sample register information was wrong and response could not be used	4 245	4 284
Number of questionnaires used in analysis	2 534	2 469

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Czech Republic

Organisation responsible for the conducting the survey: Transport Research Center

(Based on information referring to the first quarter of 2014)

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 vehicles 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. For example, the response rate for the first quarter of 2014 was 91.4 %.

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: 1 week

Time units of quarter 1 of 2014 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

    2. Střední Čechy

    3. Jihozápad

    4. Severozápad

    5. Severovýchod

    6. Jihovýchod

    7. Střední Morava

    8. 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:

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

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.)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration.

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)

    — axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

    — vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

    — 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)

    — 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	2012	2013
Total number of relevant goods vehicles in the country at mid-point of year	118 166	124 872
Number of vehicles selected for initial sample and questionnaires despatched to vehicle owners	16 698	16 670
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	4 341	4 224
Number of cases classified as non-respondents	1 350	1 399
Number of cases where sample register information was wrong and response could not be used	1 988	2 433
Number of questionnaires used in analysis	9 019	8 614

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Denmark

Organisation responsible for the conducting the survey: Statistics Denmark

(Based on information referring to the first quarter of 2014)

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 selected.

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.)
— Nett 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 2007 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 includes 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 factors$= 13 * \dfrac{N}{R}$

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

R = number of responses within stratum

Optional variables covered: Vehicle empty kilometres; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional 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 (NO)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country at mid-point of year	39 044	46 785
Number of vehicles selected for initial sample and questionnaires despatched to vehicle owners	7 720	9 655
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	2 286	2 793
Number of cases classified as non-respondents	75	108
Number of cases where sample register information was wrong and response could not be used	624	653
Number of questionnaires used in analysis	4 735	6 101

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Germany

Organisation responsible for the conducting the survey: *Kraftfahrt-Bundesamt (KBA)*

(Based on information referring to the first quarter of 2014)

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:

> The register is accessed in a unit which is totally distinct from the statistical domain.

> The establishment of the sample from the Register is undertaken according to the sample and stratification plan, the principles of which are established with the 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:

> A reminder is sent 23 days after the date the questionnaire is due to be returned.

> A penalty procedure starts another 23 days after the reminder, if the questionnaire is still not returned.

> In Quarter 1 of 2014 the response rate came up to more than 95 % .

> This response rate is considered as adequate for the purpose of the survey.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

> Lorries < 3.501 tonnes load capacity, military vehicles, vehicles of public administrations, vehicles not destined to the transport of goods (e.g. agricultural tractors, special purpose vehicles) and vehicles not used for goods transport on public roads (own account only).

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 2014 included in the survey: All (13 weeks) (i.e. one sample series of 4 weeks includes 8 time periods.)

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

> Data to vehicles not covered by the survey is not continuously collected. In 2010 the survey '*Kraftfahrzeugverkehr in Deutschland (KiD)*' was again carried out (after 2002) by the Federal Ministry of Transport, Building and Urban Development (*Bundesministerium für Verkehr, Bau und Stadtentwicklung - BMVBS*). This survey also covers the lorries < 3.501 tonnes load capacity but with a different methodological approach (e.g. definition of journey). Final report dated 24 April 2012, information available via the following link on the homepage of the *Bundesministerium für Verkehr und digitale Infrastruktur* (BMVI – former BMVBS).

> http://www.bmvi.de/SharedDocs/DE/Anlage/VerkehrUndMobilitaet/kid-2010.pdf?__blob=publicationFile

Stratification:

Stratification is done in 5 hierarchical steps (number of categories in brackets), 72 strata are distinguished:

1st level: Fleet size (2)
2nd level: Owner group (2)
3rd level: Region of vehicle registration (6)
4th level: Vehicle class (2)
5th level: Vehicle size of lorry (2)

The strata-number identifies features as follows:

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)

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

Third digit: Vehicle features (vehicle class and size)

Transportation and storage

0: road tractor
1: lorry; load capacity of 3.501 tonnes to less than 11.5 tonnes
2: lorry; load capacity of 11.5 tonnes and more

Other owner groups

0: road tractor
3: lorry; load capacity of 3.501 tonnes to less than 9.5 tonnes
4: lorry; load capacity of 9.5 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:

Single stop: If several different types of goods are transported, the type of goods with the uppermost weight is coded. In detail data is reported as follows:

A3:	8 – A3.1	Type of goods with the uppermost weight (in case of different types)
	9 – A3.2	= 'A2.2'
	10 – A3.3	Classification of the first dangerous goods quoted in the questionnaire (up to five types can be listed, it is assumed, that the first is the main one)
	11 – A3.4	Type of cargo of the load transported on the journey
	12 – A3.5	= 'A2.3'
	13 – A3.6	= 'A2.4'
	14 – A3.7	= 'A2.5'
A2:	12 – A2.2	Weight of goods transported on the journey
	13 – A2.3	Point of loading (begin of journey)
	14 – A2.4	Point of unloading (end of journey)
	15 – A2.5	Distance travelled on the journey
	16 – A2.6	= 'A2.2' * 'A2.5'

Multi stop: Multi-stop journey is collected by vertical stages. One A2- with one A3-dataset is reported. Simplification is performed as follows:

A3: 8 – A3.1   Type of goods of first loading

     9 – A3.2   = 'A2.2'

     10 – A3.3   Classification of the first dangerous goods quoted in the questionnaire (up to five types can be listed, it is assumed, that the first is the main one)

     11 – A3.4   Type of cargo of first loading

     12 – A3.5   = 'A2.3'

     13 – A3.6   = 'A2.4'

     14 – A3.7   = 'A2.5'

A2: 12 – A2.2   = 'A2.6' / 'A2.5'

     13 – A2.3   First point of loading on the journey

     14 – A2.4   Last point of unloading on the journey

     15 – A2.5   Sum of distances travelled on all vertical stages

     16 – A2.6   Sum of each stages product of 'kg' * 'km'

kg = Weight of goods transported between two successive stops (points) of the journey

km = Distance travelled between two successive stops (points) of the journey

Collection/delivery: It consists in journeys up to 30 km distance and with several points of loading and/or unloading. Only the number of stops is collected. In detail data is reported as follows:

A3: 8 – A3.1   Type of goods with the uppermost weight (in case of different types)

     9 – A3.2   = 'A2.2'

     10 – A3.3   Classification of the first dangerous goods quoted in the questionnaire (up to five types can be listed, it is assumed, that the first is the main one)

     11 – A3.4   Type of cargo of the load transported on the journey

     12 – A3.5   = 'A2.3'

     13 – A3.6   = 'A2.4'

     14 – A3.7   = 'A2.5'

A2: 12 – A2.2   Maximum weight of goods transported on the journey

     13 – A2.3   First point of loading (begin of journey)

     14 – A2.4   Last point of unloading (end of journey)

     15 – A2.5   Distance travelled on the journey

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:

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

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 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 to include 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.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle.

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)

- axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

- vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

- 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)

- 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	483 021	487 036
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	188 252	187 139
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	35 848	35 377
Number of cases classified as non-respondents	7 051	7 525
Number of cases where sample register information was wrong and response could not be used	10 637	10 345
Number of questionnaires used in analysis	134 716	133 892

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Estonia

Organisation responsible for the conducting the survey: Statistics Estonia

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Estonian Traffic Register

Name of organisation who maintains the register: Estonian Road Administration

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 Road Administration about data exchange between those two organisations.

Information obtained from the register:

The following data are obtained from Estonian Traffic Register:

— 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 activities (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.

— For contact information (telephone number and e-mail address) of natural person, the data of the Population Register are used.

— Data used for stratification of sample: main activities (NACE Rev.2) of enterprise/organisation using the vehicle (4941 and 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:

First reminder: 2 weeks after the surveyed week, letter by post

Second reminder: 4 weeks after the surveyed week, letter by post

Third reminder: 5 weeks after the surveyed week, contacting the vehicle users 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 30 %.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

Lorries <3.501 tonnes load capacity, military vehicles, vehicles of public administrations and public services, agricultural tractors, vehicles with age of vehicle over 25 year, 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 Road Administration.

Over 10 years old vehicles owned by sole proprietors are excluded.

Time unit: 1 week

Time units of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

Stratum No	Description	Frame	Sample
1	Road tractors of road transport enterprises NACE rev.2 code 4941	6593	572
2	Lorries: Load capacity > 3.5<10 tonnes: of road transport enterprises NACE rev.2 code 4941	934	52
3	Lorries: Load capacity >10 tonnes: of road transport enterprises NACE rev.2 code 4941	1761	182
4	Road tractors of all other enterprises Nace rev 2	2288	221
5	Lorries: Load capacity > 3.5<10 tonnes: all other enterprises NACE rev.2	2148	78
6	Lorries: Load capacity >10 tonnes: all other enterprises NACE rev.2	2223	182
7	Sole proprietors	1641	221

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.

Calculation of weighting factors:

Weighting factors $= 13 * \dfrac{N}{S + S'}$

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.).

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	17 439	17 698
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	6 032	6 032
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	1 930	1 921
Number of cases classified as non-respondents	1 479	1 664
Number of cases where sample register information was wrong and response could not be used	1 192	964
Number of questionnaires used in analysis	1 431	1 483

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Ireland

Organisation responsible for the conducting the survey: Central Statistics Office

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Goods Vehicle File

Name of organisation who maintains the register: Department of Transport, Tourism & Sport

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, Tourism & Sport. 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, Tourism & Sport 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 first reminder is sent if the questionnaire has not been returned by post within 12 days of the due date. A second reminder notice is sent 12 days later if the questionnaire still has not been returned. A third and final reminder is issued 31 days after the original due date.

The response rate is adequate.

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's

- Vehicles not registered for the transport of goods

- Vehicles taxed as non-commercial vehicles

Time unit: 1 week

Time unit of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

The following table shows the basis of the stratification used. There are 20 strata which are used for grossing. 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.

Vehicle Characteristics				Stratum Number	
Year of Manufacture	**Unladen Weight**	**Taxation Use**	**Year of First Registration**	**Grossing Up**	**Sample Selection**
Before 1999	2–5 tonnes	Immaterial	Immaterial	1	1
'	5–10 tonnes	Own Account	'	2	2
'	'	Hire or Reward	'	3	2
'	10 tonnes or over	Own Account	'	4	3
'	'	Hire or Reward	'	5	3
1999 to 2003	2–5 tonnes	Immaterial	'	6	4
'	5–10 tonnes	Own Account	'	7	5
'	'	Hire or Reward	'	8	5
'	10 tonnes or over	Own Account	'	9	6
'	'	Hire or Reward	'	10	6
2004 or later	2–5 tonnes	Immaterial	Before 2006	11	7
'	'	'	2006 or later	12	7
'	5–10 tonnes	Own Account	Before 2006	13	8
'	'	'	2006 or later	14	8
'	'	Hire or Reward	Before 2006	15	8
'	'	'	2006 or later	16	8
'	10 tonnes or over	Own Account	Before 2006	17	9
'	'	'	2006 or later	18	9
'	'	Hire or Reward	Before 2006	19	9
'	'	'	2006 or later	20	9

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).

$$\text{Weighting factors} = 13 * \frac{N}{S + S'}$$

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.

The following example is from Q4 2013.

Stratum 7 (Year of Manufacture): 1999–2003

Unladen Weight : 5–10 tonnes

Taxation Use=Own account / Hire and Reward

Number of vehicles on register in stratum 7 at beginning of quarter = 3.487

Number of vehicles on register in stratum 7 at end of quarter = 3.014

Average number of vehicles on register in stratum 5 for quarter = 3.230

Total number of active vehicles for which returned received in stratum 7 = 297

Grossing Factor = (Average number of vehicles on register in stratum 7 for quarter / Total Number of active vehicles for which returned received in stratum 7) x No. of weeks

Grossing Factor = (3230/297)*13 = 141.3805

No calibration is used.

Optional variables covered: Vehicle empty kilometres; Type of cargo, Axle configuration.

Additional variables collected compared to the legal requirements

Environmental impact-related variables: Type of fuel used. No other variable in the present paper questionnaire format due to space issues. The CSO will begin work on e-version of the questionnaire in 2015 at which time additional questions will be more easily accommodated.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (NO)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO – 2 digit only)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	78 847	75 692
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	26 283	32 062
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	5 604	6 854
Number of cases classified as non-respondents	12 852	15 929
Number of cases where sample register information was wrong and response could not be used	1 170	1 085
Number of questionnaires used in analysis	6 657	8 194

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Greece

Organisation responsible for the conducting the survey: Hellenic Statistical Authority

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Vehicle Register

Name of organisation who maintains the register: Ministry of Infrastructure, Transport and Networks

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, Transport and Networks.

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.

Concerning the response rate of the survey, in all quarters of 2012 this was 60 % (fully completed forms), while non-respondents amounted to 4.5 %.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

Vehicles with road 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: 1 week

Time units of quarter 1 of 2014 included in the survey: 13 weeks.

Stratification:

Following, information concerning stratification variables and codes used is provided.

Firstly the vehicles are separated in:

1. Those conducting national journeys
2. Those conducting international journeys

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

3. 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)

4. 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)

5. 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.

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:

$$\text{Weighting factors} = 13 * \frac{N}{S + S'}$$

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.)

Optional variables covered: Vehicle empty kilometres; Type of cargo, Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	121 301	122 772
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	6 518	5 473
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	1 108	853
Number of cases classified as non-respondents	1 058	786
Number of cases where sample register information was wrong and response could not be used	1 231	1 048
Number of questionnaires used in analysis	2 866	2 786

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Spain

Organisation responsible for the conducting the survey: Ministry of Public Works and Transport

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: *Registro de Ordenación del Transporte Terrestre*

Name of organisation who maintains the register: Ministry of Public Works and Transport

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 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: 1 week

Time units of quarter 1 of 2014 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

1: Islas Canarias

2: Remaining regions

Code	Type of transport	Region where the vehicle is registered	Type of vehicle and weight capacity
1	Hire and reward	All, except Islas Canarias	3.5 – 10 tonnes
2	Hire and reward	All, except Islas Canarias	10.1 – 13.5 tonnes
3	Hire and reward	All, except Islas Canarias	+ 13.5 tonnes
4	Hire and reward	All, except Islas Canarias	Tractors
5	Own account	All, except Islas Canarias	3.5 – 10 tonnes
6	Own account	All, except Islas Canarias	10.1 – 13.5 tonnes
7	Own account	All, except Islas Canarias	+ 13.5 tonnes
8	Own account	All, except Islas Canarias	Tractors
9	Hire and reward	Islas Canarias	All
10	Own account	Islas Canarias	All

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:

$$\text{Weighting factors} = \frac{N}{S + S'} * T$$

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

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	337 165	318 167
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	56 000	56 000
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	13 639	12 138
Number of cases classified as non-respondents	3 167	5 593
Number of cases where sample register information was wrong and response could not be used	12 845	12 594
Number of questionnaires used in analysis	26 349	25 675

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

France

Organisation responsible for the conducting the survey: Ministry of Ecology, Energy, Sustainable Development and Sea

(Based on information referring to the first quarter of 2014)

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 of Ecology, Energy, Sustainable Development and Sea

Frequency of update: The national register is updated daily. The sampling frame is updated quarterly

Frequency of access to draw the samples: Quarterly

Arrangements for accessing the register:

> The data are forwarded by the interior ministry daily.

Information obtained from the register:

> Name and address of the owner, SIREN number of the register of enterprises, type of vehicle, load capacity, maximum permissible weight, type of body, year of registration, main activity of the enterprise, belonging of the enterprise to the register of transporters for hire and reward and administrative region (code NUTS2).

> Used in stratification: Type of vehicle, load capacity, maximum permissible weight, type of body, year of registration, main activity of the enterprise, belonging of the enterprise to the register of transporters for hire and reward and administrative region (code NUTS2).

Procedure for reminders:

> First reminder: 4 weeks after the surveyed week

> Second reminder: 7 weeks after the surveyed week, with a new copy of the questionnaire sent out

> Non-response report: 12 weeks after the surveyed week

> Contentious: every year in February, addressed to enterprises with over ten questionnaires not answered in the previous year.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

> Motor vehicles more than 15 years old.

> Lorries exceeding 32.5 tonnes of load capacity (44.5 tonnes for road tractors).

> Vehicles with less than 3.5 tonnes of gross vehicle weight.

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

Time unit: 1 week

Time unit of quarter 1 of 2010 included in the survey: All (13 weeks)

Stratification:

> Since July 2001, sampling is carried out according to the method of 'unequal probabilities'. This leads to a large extent of stratification, and the resulting data are thus difficult to define and describe.

> The variables used for stratification are: technical details relating to the vehicle, such as category (lorry or road tractor), load capacity, maximum permissible laden weight, year of registration, main activity of the enterprise to which the vehicle belongs, membership of the enterprise to the register of transporters for hire and reward, administrative region (code NUTS2) and type of body of the vehicle.

The sample is rotated on two years: half of the sample is renewed on the following year. Therefore, every vehicle is sampled twice: the sampling week allocated to it, and the same week the following year.

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 since 2001.

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. However, the program is more general than mere 'calibration on margins,' since it also calibrates on the totals of quantitative variables.

Weighting factors for each vehicle k, $w_k = \dfrac{1}{\pi_k} = \dfrac{1}{n} \cdot \dfrac{\sum_k c_k u_k v_k}{c_k u_k v_k} = \dfrac{N}{n} \cdot \dfrac{\dfrac{\sum_k c_k u_k v_k}{N}}{c_k u_k v_k}$

u_k = 1 for vehicles > 15 years, 2 for vehicles from 11 to15 years, 3 for vehicles from 6 to 10 years, 6 for vehicles from 0 to 5 years

c_k = 0.5 x MPLW / 10 for lorries

   = (MPLW - 6) * 0.88 / 10 for road tractors

v_k = 1 by default, 1.5 for vehicles belonging to transport enterprises, 2 for removal vehicles, vehicles carrying dangerous goods or belonging to international transport enterprises.

N is total population and n the size of the sample.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

Additional variables collected compared to the legal requirements

Environmental impact-related variables: Tpe of fuel and fuel consumption.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (NO)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	535 908	542 784
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	77 750	77 503
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	11 995	12 846
Number of cases classified as non-respondents	17 155	14 995
Number of cases where sample register information was wrong and response could not be used	15 860	14 407
Number of questionnaires used in analysis	32 740	35 255

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Croatia

Organisation responsible for the conducting the survey: Croatian Bureau of Statistics

(Based on information referring to the first quarter of 2010)

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 Central 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 activity.

Information obtained from the register:

Database of registered road motor vehicles: registration mark, type of vehicle, body type, main use of vehicle, mark of vehicle, made in 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: sent 10 days after the end of reference period, questionnaire and instructions are sent again.

Second reminder: 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: 1 week

Time unit of quarter 1 of 2010 included in the survey: 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. Multi-stop journeys are recorded only for national transport.

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:

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

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.), scrapped, final or temporally out of operation, not performing transport activity anymore.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional variables collected compared to the legal requirements:

Environmental impact related variables: Fuel purchased.

A1. Vehicle-related variables: none.

A2. Journey-related variables: none.

A3. Goods-related variables: none.

Main figures	2012	2013
Total number of relevant goods vehicles in the country	25 829	25 203
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	2 493	2 398
Number of cases classified as non-respondents	2 069	2 114
Number of cases where sample register information was wrong and response could not be used	971	931
Number of questionnaires used in analysis	4 867	4 957

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Italy

Organisation responsible for the conducting the survey: National Statistical Institute (ISTAT)

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of registers: National Vehicle Register; Tax Register and Road freight survey register

Name of organisation who maintains the register: Ministries of Transport, Ministries of Finance 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 of the two databases at the end of each quarter of the year. The databases updated at 30/09/2013 are used as input of a procedure, which final output is the 'Road freight survey register' to be used for the 2014 road freight survey.

Information obtained from the register:

The 'Road freight survey register' is a database in which each record contains data related to a road freight transport vehicle (trailers and semi-trailers are not included), identified by its license-plate number. It is the sampling frame of the survey. The register is updated yearly using data in the 'National vehicle register' (basically technical data concerning the vehicle) and in the 'Tax register' (basically 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 basically 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:

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

Procedure for reminders:

Spot actions for reminders were undertaken in 2011 and 2012. Studies for implementing standard routine of reminders are under way.

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 old (from first registration);

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

Data of performance for the vehicles with a load capacity <3.5 tonnes and other vehicles excluded are not available.

Vehicle-km data could be obtained from odometer reading within roadworthiness mandatory procedures but data collection has not been implemented or studied yet.

Time unit: 1 week

Time unit of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

The overall sample size (year 2014) is about 50.900 road transport vehicles.

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 in order 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.

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

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 belong to the first class of load capacity.

Recording of weight of goods

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

We report the gross-gross weight only for the weight of goods loaded in container or swap body.

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 type3 journeys report only national journeys.

Calculation of weighting factors:

Weighting factors $= 13 * \dfrac{N}{S + S'}$

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.)

Optional variables covered: None.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (possible but difficult to achieve in the short term)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	282 174	255 605
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	62 403	57 023
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	3 700	4 047
Number of cases classified as non-respondents	46 476	38 674
Number of cases where sample register information was wrong and response could not be used	3 439	3 572
Number of questionnaires used in analysis	8 787	10 730

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Cyprus

Organisation responsible for the conducting the survey: Statistical Service of Cyprus (CYSTAT)

(Based on information referring to the first quarter of 2014)

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 Communication 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 and a few cases by personal visits. 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: 1 Week

Time units of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

A total of 1612 vehicles (Lorries and Road Tractors) are surveyed. The sample is distributed in all weeks (31 vehicles per week). The sample consists of 9 categories (stratum) 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 weight 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 weight received plus the weight delivered multiplied by the distance covered is divided by 2000.

Calculation of weighting factors:

Weighting factor $= 13 * \dfrac{N}{Q}$

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

Q = number of questionnaire completed

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

— 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)

— 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	13 325	13 142
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	1 612	1 209
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	591	537
Number of cases classified as non-respondents	91	62
Number of cases where sample register information was wrong and response could not be used	75	59
Number of questionnaires used in analysis	855	551

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Latvia

Organisation responsible for the conducting the survey: Central Statistical Bureau

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Register of motor vehicles

Name of organisation who maintains the register: Road Traffic Safety Directorate

Frequency of update: On-line

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 Motor Vehicles. This part of the Register contains information on transport vehicles which 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.

Information obtained from the register:

> Place of registration (2 groups – Riga including the district of Riga, all Latvia without Riga and the district of Riga); 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

> Used for stratification: load capacity, year of production and name of owner.

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.

> Total response rate in 2013 was 77.2 %.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

> Special purpose vehicles such as truck cranes, fire-flightiness vehicles, road maintenance vehicles, border guards' vehicles and other special purpose vehicles

> Vehicles older than 25 years

> Vehicles with maximum permissible laden weight less than 3.5 tonnes

Time unit: 1 week

Time units of quarter 1 of 2014 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 six, nine or twelve 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.

Stratum	Capacity	Place of Registration	Year of production	Status
3	3.5<cap.=<5t	Riga (including the district of Riga)	1985 – 2010	Legal
4	3.5<cap.=<5t	all Latvia without Riga and the district of Riga	1985 – 2010	Legal
5	5t<cap.<=10t	Riga (including the district of Riga)	2004 – 2010	Legal
6	5t<cap.<=10t	Riga (including the district of Riga)	1997 – 2003	Legal
7	5t<cap.<=10t	Riga (including the district of Riga)	1985 – 1996 (including)	Legal
8	5t<cap.<=10t	all Latvia without Riga and the district of Riga	2004 – 2010	Legal
9	5t<cap.<=10t	all Latvia without Riga and the district of Riga	1997 – 2003	Legal
10	5t<cap.<=10t	all Latvia without Riga and the district of Riga	1985 – 1996 (including)	Legal
11	cap.>10t	Riga (including the district of Riga)	2004 – 2010	Legal
12	cap.>10t	Riga (including the district of Riga)	1997 – 2003	Legal
13	cap.>10t	Riga (including the district of Riga)	1985 – 1996 (including)	Legal
14	cap.>10t	all Latvia without Riga and the district of Riga	2004 – 2010	Legal
15	cap.>10t	all Latvia without Riga and the district of Riga	1997 – 2003	Legal
16	cap.>10t	all Latvia without Riga and the district of Riga	1985 – 1996 (including)	Legal
17	the trucks	Riga (including the district of Riga)	2004 – 2010	Legal
18	the trucks	Riga (including the district of Riga)	1997 – 2003	Legal
19	the trucks	Riga (including the district of Riga)	1985 – 1996 (including)	Legal
20	the trucks	all Latvia without Riga and the district of Riga	2004 – 2010	Legal
21	the trucks	all Latvia without Riga and the district of Riga	1997 – 2003	Legal
22	the trucks	all Latvia without Riga and the district of Riga	1985 – 1996 (including)	Legal
31	3.5<cap.<=5t	all Latvia	1985 – 2010	Private
32	cap.>5t	all Latvia	1985 – 2010	Private
33	the trucks	all Latvia	1985 – 2010	Private

Recording of weight of goods

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

Estimation of maximum permissible laden weight:

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

Calculation of weighting factors:

The monthly weighting factors are calculated as: $\dfrac{M}{S + S'}$

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.).

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES – A2)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	19 740	20 360
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	5 200	5 200
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	1 548	1470
Number of cases classified as non-respondents	1 121	1 188
Number of cases where sample register information was wrong and response could not be used	84	105
Number of questionnaires used in analysis	2 447	2 437

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Lithuania

Organisation responsible for the conducting the survey: Statistics Lithuania

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Register of Road Motor Vehicles, Data on road freight vehicles, which passed a roadworthiness test

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':
>
> — 2014 first quarter – 14 November of 2013 year,
>
> — 2014 second quarter – 14 February of 2014 year,
>
> — 2014 third quarter – 15 May of 2014 year,
>
> — 2014 fourth quarter – 14 August of 2014 year.

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 11 days after the survey week by post.
>
> The second reminder is sent 16 days after the survey week by e-mail.
>
> The third reminder is sent 19 days after the survey week by post.
>
> Final reminder after 49 days of the survey week is contact by phone.
>
> An adequate sampling frame is provided.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

> 1. Special purpose road vehicles;
>
> 2. Goods road vehicles with maximum permissible weight of less than 6 tonnes in case of a single motor vehicle
>
> 3. Vehicles which are not used for goods carriage
>
> 4. 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: 1 week

Time units of quarter 1 of 2014 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	3 500 ≥	Vehicles with licences for carriage of dangerous goods
5	Road tractors	not divided	Vehicles with licences for carriage of dangerous goods
23	Lorries	3 500 – 9 999	Vehicles with licences for international journeys
8	Lorries	10 000 – 14 999	Vehicles with licences for international journeys
9	Lorries	15 000 +	Vehicles with licences for international journeys
10	Road tractors	not divided	Vehicles with licences for international journeys
24	Lorries	3 500 – 9 999	Vehicles of enterprises with activity NACE Rev.2 49.41
13	Lorries	10 000 – 14 999	Vehicles of enterprises with activity NACE Rev.2 49.41
14	Lorries	15 000 +	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	3 500 – 5 999	Vehicles with licences for national journeys and other
17	Lorries	6 000 – 9 999	Vehicles with licences for national journeys and other
18	Lorries	10 000 – 14 999	Vehicles with licences for national journeys and other
19	Lorries	15 000 +	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.

Calculation of weighting factors:

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

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.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

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 (YES)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	38 331	39 506
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	12 753	12 772
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	3 329	3 143
Number of cases classified as non-respondents	1 258	1 240
Number of cases where sample register information was wrong and response could not be used	2 462	2 378
Number of questionnaires used in analysis	5 704	6 011

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Luxembourg

Organisation responsible for the conducting the survey: National Statistical Institute (STATEC)

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Stock of vehicles register

Name of organisation who maintains the register: *Société nationale de circulation automobile (SNCA)*

Frequency of update: Daily update by SNCA, monthly data transmission to Statec.

Frequency of access to draw the samples

> At present: twice a year, samples are drawn. It is planned to access this register four times per year in order to draw the samples.

Arrangements for accessing the register:

> The owner of the register is the SNCA which is directly depending from the Ministry of durable development and infrastructures (MDDI). Monthly register files are transmitted to Statec via LU's state center for information technologies (CTIE). In collaboration with Statec, the CTIE draws the samples and prints the questionnaires which are then sent by Statec to the vehicle holders.

> The national statistical law states that personal data collected by STATEC or to which it has access, is strictly protected by the law on statistical confidentiality which provides that 'information gathered by STATEC may only be used for statistical purposes and for no other administrative or fiscal purposes. Individual information gathered from individuals and companies may on no account be disclosed'.

Information obtained from the register:

> The register provides information about the types of vehicles as well as about technical variables such as engine cylinder capacity, engine power expressed in kW, type of motor, fuel used, type of body, load capacity, unladen weight, etc. At present, there is no stratification.

Procedure for reminders:

> The vehicle holders that have not responded in time are contacted by letter once per month (+/– mid of the month). If necessary, three reminders are sent (1st, 2nd and 3rd reminder). The reminders are produced by a standard routine included in the data management system. The response rate is adequate.

Sampling methodology

Statistical unit: Tractive vehicle

Types of units excluded:

> Agricultural vehicles, military vehicles and vehicles belonging to central or local public administrations, with the exception of goods road transport vehicles belonging to public undertakings, and in particular railway undertakings are excluded from the scope.

> Vehicles with a load capacity less of than 3 500 kg are excluded and there is no maximum limit.

Time unit: 1 week

Time unit of quarter 1 of 2014 included in the survey: 7 weeks

Stratification: There is no stratification.

Recording of weight of goods

> The so-called gross-gross weight is indicated (i.e. containers swap bodies and pallets are included) and the maximum weight that can be carried depends on the maximum load capacity.

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.

Calculation of weighting factors:

$$\text{Weighting factors} = 13 * \frac{v}{r + e}$$

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)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	9 721	9 694
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	5 559	8 816
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	1 232	2 057
Number of cases classified as non-respondents	449	899
Number of cases where sample register information was wrong and response could not be used	0	0
Number of questionnaires used in analysis	3 880	5 860

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Hungary

Organisation responsible for the conducting the survey: Hungarian Central Statistical Office

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: National stock of goods carriage motor vehicles

Name of organisation who maintains the register:

Central Office for Administrative and Electronic Public Services

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 Central Office for Administrative and Electronic Public Services, 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 have to answer within 5 days. HSO has then the right to take steps to impose a penalty.

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: 1 week

Time units of quarter 1 of 2014 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 criteria, 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.

Calculation of weighting factors:

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

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

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 = correction factor calculated as follows: $\dfrac{0,5 * n3 + n4}{n1 + n2}$

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 do 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.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Possibility of using vehicles for combined transport.

Additional 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)
- — axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)
- — vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

- — 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)
- — 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	2012	2013
Total number of relevant goods vehicles in the country	73 773	73 288
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	51 068	50 088
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	9 657	9 766
Number of cases classified as non-respondents	6 379	6 063
Number of cases where sample register information was wrong and response could not be used	13 689	12 522
Number of questionnaires used in analysis	21 343	21 737

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Malta

Organisation responsible for the conducting the survey: National Statistics Office

(Based on information referring to the first quarter of 2004)

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: 0

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: none.

A2. Journey-related variables: none.

A3. Goods-related variables: none.

Main figures: Not available

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Netherlands

Organisation responsible for the conducting the survey: Statistics Netherlands

(Based on information referring to the first quarter of 2014)

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) and

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 categorize 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:

a) 3 weeks after the reported time period, the non-respondents receive a first written reminder.

b) 6 weeks after the reported time period, the non-respondents receive a second written reminder.

c) 8 weeks after the reported time period, the non-respondents receive a reminder performed by telephone.

d) 10 weeks or more after the reported time period, the most important non-respondents, based on the number of vehicles, will be visited by a fieldworker.

This 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.

Time unit: 1 week

Time unit of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

The sample is drawn at random within 37 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(*)	Age of vehicle	Nace(*)
1	0.231000	2014	Own account	Lorry	A	1,2,3,4	All vehicles	Fleet under 30 vehicles
2	0.231000	2014	Own account	Lorry	B	1,2	All vehicles	Fleet under 30 vehicles
3	0.231000	2014	Own account	Lorry	B	3,4	All vehicles	Fleet under 30 vehicles
4	0.175000	2014	Own account	Lorry	C	1,2	All vehicles	Fleet under 30 vehicles
5	0.175000	2014	Own account	Lorry	C	3,4	All vehicles	Fleet under 30 vehicles
6	0.231000	2014	Own account	Lorry	D	1,2	Less or equal to 4 years	Fleet under 30 vehicles
7	0.233100	2014	Own account	Lorry	D	3,4	Less or equal to 4 years	Fleet under 30 vehicles
8	0.157500	2014	Own account	Lorry	D	1,2	4 years or older	Fleet under 30 vehicles
9	0.175000	2014	Own account	Lorry	D	3,4	4 years or older	Fleet under 30 vehicles
10	0.231000	2014	Own account	Lorry	E	1,2	All vehicles	Fleet under 30 vehicles
11	0.231000	2014	Own account	Lorry	E	3,4	All vehicles	Fleet under 30 vehicles
12	0.231000	2014	Own account	Lorry	F	1,2,3,4	Less or equal to 4 years	Fleet under 30 vehicles
13	0.175000	2014	Own account	Lorry	F	1,2	4 years or older	Fleet under 30 vehicles
14	0.175000	2014	Own account	Lorry	F	3,4	4 years or older	Fleet under 30 vehicles
15	0.231000	2014	Own account	Lorry	G	1,2	All vehicles	Fleet under 30 vehicles
16	0.231000	2014	Own account	Lorry	G	3,4	All vehicles	Fleet under 30 vehicles
17	0.315000	2014	Own account	Road tractor	A–G	1,2,3	All vehicles	Fleet under 30 vehicles
18	0.315000	2014	Own account	Road tractor	A	4	All vehicles	Fleet under 30 vehicles
19	0.315000	2014	Own account	Road tractor	B	4	All vehicles	Fleet under 30 vehicles
20	0.315000	2014	Own account	Road tractor	C	4	All vehicles	Fleet under 30 vehicles
21	0.315000	2014	Own account	Road tractor	D	4	Less or equal to 4 years	Fleet under 30 vehicles
22	0.315000	2014	Own account	Road tractor	D	4	4 years or older	Fleet under 30 vehicles
23	0.315000	2014	Own account	Road tractor	E	4	Less or equal to 4 years	Fleet under 30 vehicles
24	0.315000	2014	Own account	Road tractor	E	4	4 years or older	Fleet under 30 vehicles
25	0.315000	2014	Own account	Road tractor	F	4	Less or equal to 4 years	Fleet under 30 vehicles
26	0.315000	2014	Own account	Road tractor	F	4	4 years or older	Fleet under 30 vehicles
27	0.315000	2014	Own account	Road tractor	G	4	All vehicles	Fleet under 30 vehicles
28	0.175000	2014	Own account	Special vehicle	NULL	2	All vehicles	Fleet under 30 vehicles
29	0.231000	2014	Own account	Special vehicle	NULL	3,4	All vehicles	Fleet under 30 vehicles
30	0.315000	2014	Hire and reward	Lorry	NULL	1,2	All vehicles	Fleet under 30 vehicles
31	0.315000	2014	Hire and reward	Lorry	NULL	3	Less or equal to 4 years	Fleet under 30 vehicles
32	0.315000	2014	Hire and reward	Lorry	NULL	4	Less or equal to 4 years	Fleet under 30 vehicles
33	0.231000	2014	Hire and reward	Lorry	NULL	3	4 years or older	Fleet under 30 vehicles
34	0.231000	2014	Hire and reward	Lorry	NULL	4	4 years or older	Fleet under 30 vehicles
35	0.315000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	Less or equal to 4 years	Fleet under 30 vehicles
36	0.231000	2014	Hire and reward	Road tractor	NULL	1,2,3,4	4 years or older	Fleet under 30 vehicles
37	0.070000	2014	Hire and reward	Special vehicle	NULL	2,3,4	All vehicles	Fleet under 30 vehicles
38	0.074250	2014	Own account	Lorry	A	1,2,3,4	All vehicles	Fleet 30 or more vehicles
39	0.074250	2014	Own account	Lorry	B	1,2	All vehicles	Fleet 30 or more vehicles
40	0.074250	2014	Own account	Lorry	B	3,4	All vehicles	Fleet 30 or more vehicles
41	0.056250	2014	Own account	Lorry	C	1,2	All vehicles	Fleet 30 or more vehicles
42	0.056250	2014	Own account	Lorry	C	3,4	All vehicles	Fleet 30 or more vehicles
43	0.074250	2014	Own account	Lorry	D	1,2	Less or equal to 4 years	Fleet 30 or more vehicles
44	0.074925	2014	Own account	Lorry	D	3,4	Less or equal to 4 years	Fleet 30 or more vehicles
45	0.050625	2014	Own account	Lorry	D	1,2	4 years or older	Fleet 30 or more vehicles

Stratum	Fraction	Year	Type of transport	Type of vehicle	SBIklasse	Load capacity(*)	Age of vehicle	Nace(*)
46	0.056250	2014	Own account	Lorry	D	3,4	4 years or older	Fleet 30 or more vehicles
47	0.074250	2014	Own account	Lorry	E	1,2	All vehicles	Fleet 30 or more vehicles
48	0.074250	2014	Own account	Lorry	E	3,4	All vehicles	Fleet 30 or more vehicles
49	0.074250	2014	Own account	Lorry	F	1,2,3,4	Less or equal to 4 years	Fleet 30 or more vehicles
50	0.056250	2014	Own account	Lorry	F	1,2	4 years or older	Fleet 30 or more vehicles
51	0.056250	2014	Own account	Lorry	F	3,4	4 years or older	Fleet 30 or more vehicles
52	0.074250	2014	Own account	Lorry	G	1,2	All vehicles	Fleet 30 or more vehicles
53	0.074250	2014	Own account	Lorry	G	3,4	All vehicles	Fleet 30 or more vehicles
54	0.101250	2014	Own account	Road tractor	A–G	1,2,3	All vehicles	Fleet 30 or more vehicles
55	0.101250	2014	Own account	Road tractor	A	4	All vehicles	Fleet 30 or more vehicles
56	0.101250	2014	Own account	Road tractor	B	4	All vehicles	Fleet 30 or more vehicles
57	0.101250	2014	Own account	Road tractor	C	4	All vehicles	Fleet 30 or more vehicles
58	0.101250	2014	Own account	Road tractor	D	4	Less or equal to 4 years	Fleet 30 or more vehicles
59	0.101250	2014	Own account	Road tractor	D	4	4 years or older	Fleet 30 or more vehicles
60	0.101250	2014	Own account	Road tractor	E	4	Less or equal to 4 years	Fleet 30 or more vehicles
61	0.101250	2014	Own account	Road tractor	E	4	4 years or older	Fleet 30 or more vehicles
62	0.101250	2014	Own account	Road tractor	F	4	Less or equal to 4 years	Fleet 30 or more vehicles
63	0.101250	2014	Own account	Road tractor	F	4	4 years or older	Fleet 30 or more vehicles
64	0.101250	2014	Own account	Road tractor	G	4	All vehicles	Fleet 30 or more vehicles
65	0.056250	2014	Own account	Special vehicle	NULL	2	All vehicles	Fleet 30 or more vehicles
66	0.074250	2014	Own account	Special vehicle	NULL	3,4	All vehicles	Fleet 30 or more vehicles
67	0.101250	2014	Hire and reward	Lorry	NULL	1,2	All vehicles	Fleet 30 or more vehicles
68	0.101250	2014	Hire and reward	Lorry	NULL	3	Less or equal to 4 years	Fleet 30 or more vehicles
69	0.101250	2014	Hire and reward	Lorry	NULL	4	Less or equal to 4 years	Fleet 30 or more vehicles
70	0.074250	2014	Hire and reward	Lorry	NULL	3	4 years or older	Fleet 30 or more vehicles
71	0.074250	2014	Hire and reward	Lorry	NULL	4	4 years or older	Fleet 30 or more vehicles
72	0.101250	2014	Hire and reward	Road tractor	NULL	1,2,3,4	Less or equal to 4 years	Fleet 30 or more vehicles
73	0.074250	2014	Hire and reward	Road tractor	NULL	1,2,3,4	4 years or older	Fleet 30 or more vehicles
74	0.022500	2014	Hire and reward	Special vehicle	NULL	2,3,4	All vehicles	Fleet 30 or more vehicles

(*)1. Less than 2 tonnes, 2. 2 –3.5 tonnes, 3. 3.5–15 tonnes, 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 classification 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 is able to 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:

$$\text{Weighting factor} = 13 * 0.5 * \frac{N + N'}{S + S'}$$

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').

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	141 858	133 337
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	51 033	36 316
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	10 201	5 868
Number of cases classified as non-respondents	11 947	6 660
Number of cases where sample register information was wrong and response could not be used	3 065	2 632
Number of questionnaires used in analysis	25 820	21 156

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Austria

Organisation responsible for the conducting the survey: Statistics Austria

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Vehicle-Register (VR) and Statistical Business Register (BR)

Name of organisation who maintains the register: *Bundesanstalt Statistik Österreich* / Statistics Austria

Frequency of update:

Vehicle Register: Monthly

Business Register: Continuously

Frequency of access to draw the samples: Once a quarter

Arrangements for accessing the register:

Continuous supplementing of VR-records with BR-information (Business number, *Bundesland*/Federal country).

Information obtained from the register:

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

Business Register: Enterprise number (link to VR), name of business company, address.

Stratum: Load capacity class of business company by *Bundesland* and the parameter values 'transport on own account / for hire or reward'

Procedure for reminders:

First reminder: 3 weeks after the surveyed week

Second reminder: 5 weeks after the surveyed week

Penalty procedure: starts 6 weeks after the second reminder

The response rate is adequate.

Sampling methodology

Statistical unit: Tractive vehicle, Local unit

Types of units excluded:

Excluded are local units with NACE 7525 (Fire brigade), 8041 (Driving schools), 9500 (Private household), 9900 (Exterritorial organisations and corporations) and enterprises without tractive vehicles.

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

Vehicles with load capacity less than 2 tonnes,

Vehicles older than 40 years.

Time unit: 1 week

Time unit of quarter 1 of 2014 included in the survey: All of quarter 1

Stratification:

Sampling procedure: Once a quarter.

Classification: Generation of total load capacity per business and the parameter values 'transport on own account' and 'hire or reward'.

Basis for stratification: Load capacity, class of company by *Bundesland* and the parameters 'transport on own account' and 'hire or reward':

Classes (from year 2007 on equal for every *Bundesland*):

Class 10: < 15 tonnes load capacity; transport on own account and hire or reward

Class 21: 15 < 150 tonnes load capacity; transport on own account

Class 22: 15 < 150 tonnes load capacity; hire or reward

Class 31: ≥ 150 tonnes load capacity; transport on own account

Class 32: ≥150 tonnes load capacity; hire or reward

Time units: between one and a maximum of four weeks per year.

Structure of variable 'Stratum':

Digit 1: *Bundesland* (1 – 9)

Digit 2+3: Load capacity class and the parameter values 'transport on own account' and 'hire or reward'

Digit 4+5: Time slot: 1 – 13; 4/52 of a year.

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: No simplifying assumption. Transport operators are required to fill in as many lines of the questionnaire as different commodity groups are transported.

Multi stop: The used record structure contains a fixed part (vehicle data) and n variable parts for n basic operations in the course of one laden journey.

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.

Calculation of weighting factors:

For each period of 4 consecutive weeks z = 1,…,13 the weight w_{hz} in each stratum h is calculated as four times the quotient of the number of all vehicles F_{hz} of stratum h divided by the number of responding vehicles f_{hz} in period z.

$$w_{hz} = 4 * \frac{F_{hz}}{f_{hz}}$$

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	67 877	66 749
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	26 000	26 000
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	5 489	5 984
Number of cases classified as non-respondents	399	308
Number of cases where sample register information was wrong and response could not be used	953	992
Number of questionnaires used in analysis	19 163	18 724

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Poland

Organisation responsible for the conducting the survey: Central Statistical Office

(Based on information referring to the first quarter of 2014)

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: Central Statistical Office

Frequency of update: Mainly once a quarter

Frequency of access to draw the samples: Once a quarter

Arrangements for accessing the register:

> The main data source is Central Vehicle Register (maintained by Ministry of the Interior). Data as of the end of each quarter are received as 398 files in the XML format (according to NTS 4-level /districts) four times a year (at the end of January, April, July and October).

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-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 (NUTS2-level), load capacity (for lorries).

Procedure for reminders:

> First reminder: 3 weeks after the survey week

> Second reminder: 6 weeks after the survey week.

> In 2014, the survey sample increased from 50 687 to 56 160 vehicles.

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.

Time unit: 1 week

Time units of quarter 1 of 2014 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 the code for the large strata (e.g. 0211).

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

— the sample of heavier lorries is twice as big as the sample of lighter lorries, while the sample of younger lorries is one and a half bigger than the sample of older lorries

— the sample of younger road tractors is 1.7 times bigger than 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 formulae:

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 factors $= 13 * C * \dfrac{N}{n}$

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. Overcoverage

  2. Non-response

Basic weighting factor:

$$w_1 = 13 \cdot \frac{N}{n}$$

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. Overcoverage

Weighting factor considering overcoverage:

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

2. Non-response

Weighting factor considering non-response:

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

Finally:

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

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional 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)

    — axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

    — vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

    — 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)

— 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	645 285	649 985
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	50 879	50 687
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	9 860	10 381
Number of cases classified as non-respondents	7 809	8 696
Number of cases where sample register information was wrong and response could not be used	13 327	10 717
Number of questionnaires used in analysis	19 883	20 893

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Portugal

Organisation responsible for the conducting the survey: National Statistical Institute (INE)

(Based on information referring to the first quarter of 2014)

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.T. (Instituto da Mobilidade e dos Transportes Terrestres)*

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 80–85 % 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: 1 week

Time unit of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

> Two stratum 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 (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:

Weighting factor $= 13 * \dfrac{N_h}{n_h}$

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.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	113 597	108 287
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	28 002	49 183
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	8 402	15 327
Number of cases classified as non-respondents	6 889	6 711
Number of cases where sample register information was wrong and response could not be used	4 899	11 869
Number of questionnaires used in analysis	7 812	15 332

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Romania

Organisation responsible for the conducting the survey: National Statistical Institute

(Based on information referring to the first quarter of 2014)

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 files of vehicles are received quarterly from Ministry of Administration and Interior on CD, then, before the sample is drown-up, the nomenclature of vehicles is updated on the base of information provided of the files of Ministry of Administration and Interior, as well as, with the scrapped vehicles reported by owners of the vehicles.

Information obtained from the register:

> Number of registration, category of vehicle, subcategory of vehicle, type of vehicle (lorry, road tractor), year of manufacturing, maximum permissible weight, load capacity, number of axles of vehicle, type of transport (own account or hire or reward).

> Used in stratification: Type of transport, load capacity.

Procedure for reminders:

> The transport operators are contacted by email or 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: 1 week

Time units of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

> The sample is stratified according to the following variables:

> — Destination: national -the code is '0' (example: 0113) and international -the code is '1'(example: 1113)

> — Statistical regions (8 classes):

>> 1- Nord-Est

>> 2- Sud-Est

>> 3- Sud - Muntenia

>> 4- Sud-Vest Oltenia

>> 5- Vest

>> 6- Nord-Vest

>> 7- Centru

>> 8- Bucuresti-Ilfov

— Type of transport:

        1- hire or reward

        2- own account

— Load capacity (4 classes):

        1- 3.5 – 7.5 tonnes

        2- 7.6 – 12 tonnes

        3- 12.1 – 17 tonnes

        4- more than 17 tonnes

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: …

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

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 $\dfrac{n_{h1} + n_{h3}}{n_{h1}} * \dfrac{n_{h1} + n_{h2} + n_{h3} + n_{h4}}{n_{h1} + n_{h2} + n_{h3}}$

Where:

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

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

n_{h3} = number of refusal from stratum h

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

Optional variables covered: Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional variables collected compared to the legal requirements

Environmental impact-related variables: Quantity of fuel purchased.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (YES)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	85 125	88 586
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	32 170	32 371
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	15 560	15 207
Number of cases classified as non-respondents	882	1 372
Number of cases where sample register information was wrong and response could not be used	2 031	1 897
Number of questionnaires used in analysis	13 697	13 895

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Slovenia

Organisation responsible for the conducting the survey: Statistical Office of the Republic of Slovenia

(Based on information referring to the first quarter of 2010)

Sampling register used for the survey

Name of register: Register of Road 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:

> The replication of the statistical version of the Register of Road Vehicles at the Ministry of the Interior is made on the last day of every month in compliance with the agreement between the Statistical Office of the Republic of Slovenia and the Ministry of the Interior and the Annual Programme of Statistical Surveys.

> Before each quarterly sampling, the Register of Motor Vehicles 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:

> Register of Motor Vehicles: identifier of the owner/user, type of the owner (used in the stratification), registration number, type of vehicle, body type, unladen weight (used in the stratification), maximum permissible laden weight (used in the stratification), made in year, number of axles, date of first registration, date of first registration in Slovenia, number of axles, type of fuel used.

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

Procedure for reminders:

> First reminder – 10 days after the observation

> Second reminder – 23 days after the observation

> Third reminder – telephone call 30–45 day after the observation to key respondents

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 2 000 kg.

Time unit: 1 week

Time units of quarter 1 of 2010 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 (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:

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

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:

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

Weights due to sample selection:

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

Overall weight: $w_{Overall} = w_{sel} * w_{nonr} * 13$

Eligible units are units that respond to the questionnaire regardless of the activity of the vehicle.

Ineligible units are units beyond the target population that were included in the sample. These include cases were 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.

Vehicles not performing transport during the sampled period (inactive vehicles) are treated as eligible units.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

Additional variables collected compared to the legal requirements:

Environmental impact related variables: Type of fuel used and quantity of fuel purchased.

A1. Vehicle-related variables: none.

A2. Journey-related variables: none.

A3. Goods-related variables: none.

Main figures	2012	2013
Total number of relevant goods vehicles in the country	22 242	21 814
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 372	8 359
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	1 549	1 507
Number of cases classified as non-respondents	2 135	2 140
Number of cases where sample register information was wrong and response could not be used	454	492
Number of questionnaires used in analysis	4 234	4 220

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Slovakia

Organisation responsible for the conducting the survey: Statistical Office of the Slovak Republic

(Based on information referring to the first quarter of 2014)

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: 1 week

Time units of quarter 1 of 2014 included in the survey: All (13 weeks)

Stratification:

			Loading capacity
1 1 1	Enterprises/Business register	lorries	of less than 1.499 tonnes
2 1 1	Sole entrepreneurs/Tradesman register	lorries	of less than 1.499 tonnes
1 1 2	Enterprises/Business register	lorries	of 1.5 – 4.999 tonnes
2 1 2	Sole entrepreneurs/Tradesman register	lorries	of 1.5 – 4.999 tonnes

1 1 3	Enterprises/Business register	lorries	of 5 – 9.999 tonnes
2 1 3	Sole entrepreneurs/Tradesman register	lorries	of 5 – 9.999 tonnes
1 1 4	Enterprises/Business register	lorries	of 10 tonnes and more
2 1 4	Sole entrepreneurs/Tradesman register	lorries	of 10 tonnes and more
1 2 5	Enterprises/Business register	road tractor	
2 2 5	Sole entrepreneurs/Tradesman register	road tractor	

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:

$$\text{Weighting factor} = 13 * \frac{N}{S} \text{ or } 13 * \frac{N}{S + S'} \text{ (depending on register quality)}$$

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.)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	129 951	132 908
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	3 821	3 477
Number of cases classified as non-respondents	1 295	1 275
Number of cases where sample register information was wrong and response could not be used	1 498	1 611
Number of questionnaires used in analysis	3 786	4 037

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Finland (National)

Organisation responsible for the conducting the survey: Statistics Finland

(Based on information referring to the first quarter of 2014)

Sampling registers used for the survey

Name of registers: 1) Vehicle Register and 2) Membership register

Name of organisations who maintains the register: 1) Finnish Transport Safety Agency (Trafi) and 2) SKAL-S (International Road Carriers of Finland – Association of Contract Operators in Finland – Association of Tank Operators in Finland)

Frequency of updates: Constantly

Frequency of access to draw the samples: 1) Once a quarter and 2) twice a year

Arrangements for accessing the registers:

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

Information obtained from the registers:

> 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:

> If a vehicle holder does not respond in 3–5 weeks after the due date for return of the questionnaire, a first reminder is sent out by post. If a vehicle holder still does not respond within 2–4 weeks after the due date for the reminder, a second reminder is sent by post.

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 2014 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 = $T * \dfrac{N}{R}$

T = Time factor

N = number of all vehicles (in a stratum)

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

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional variables collected compared to the legal requirements:

Environmental impact-related variables: none.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (YES)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	101 679	102 774
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	2 528	2 612
Number of cases classified as non-respondents	4 185	4 292
Number of cases where sample register information was wrong and response could not be used	666	557
Number of questionnaires used in analysis	2 619	2 537

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Finland (International)

Organisation responsible for the conducting the survey: Statistics Finland

(Based on information referring to the first quarter of 2014)

Sampling registers used for the survey

Name of registers: 1) Vehicle Register and 2) Membership register

Name of organisations who maintains the registers: 1) Finnish Transport Safety Agency (Trafi) and 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 and 2) Twice a year

Arrangements for accessing the register:

An agreement for co-operation in statistical issues with Finnish Transport Safety Agency and 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:

If a vehicle holder does not respond in 3–5 weeks after the due date for return of the questionnaire, a first reminder is sent out by post. If a vehicle holder still does not respond within 2–4 weeks after the due date for the reminder, a second reminder is sent by post.

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.

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 2014 included in the survey: 12 weeks (out of possible 12 weeks and 6 days), i.e. all

Stratification:

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:

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

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:

Weighting factor $W = T * ((N_{member}/N_{non-member})/(R_{member}/R_{non-member})) * (N / R)$, where

T = Time factor

N_{member} = Number of vehicles which are held by members of SKAL-S in a stratum of the sampling frame

$N_{non-member}$ = Number of vehicles which are held by non-members of SKAL-S in a stratum of the sampling frame

R_{member} = Number of respondents (active and non-active) who are members of SKAL-S in a stratum

$R_{non-member}$ = Number of respondents (active and non-active) who are non-members of SKAL-S in a stratum

N = Number of all vehicles (in a stratum of the sampling frame)

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

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle; Possibility of using vehicles for combined transport.

Additional variables collected compared to the legal requirements:

Environmental impact related variables: None.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (YES)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables: none.

— 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)

— 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: none.

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

Main figures	2008	2009
Number of statistical units (enterprises) in the country	6 913	7 456
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners (some enterprises are sampled more than once in a year)	2 400	2 399
Number of cases where no unit activity was recorded during the sampled period	1 397	1 440
Number of statistical units classified as non-respondents	1 003	959
Number of cases where sample register information was wrong and response could not be used	3	0
Number of questionnaires used in analysis	221	188

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Sweden

Organisation responsible for the conducting the survey: The Swedish Agency for Transport Policy Analysis (*Trafikanalys*)

(Based on information referring to the first quarter of 2014)

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

Name of organisation who maintains the register:

National Road Administration (NRA) and Statistics Sweden

Frequency of update:

— VR, CTR and FDB: daily.

— Vehicle-kilometre data: 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 2016. The vehicle register data, where the unit is a vehicle, is delivered from the NRA to the producer at specified dates. For quarter Q the 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. In the process various steps are taken, including omitting vehicles not belonging to the target population. One other step includes merging data from the central register of corporations and only keeping those vehicles belonging to formally registered companies. Yet another step includes merging register based data on driving distance (kilometres travelled) previous year for each vehicle based on information from the vehicle- kilometre database.

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 70 – 75 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 30 years and older and vehicles that are not operating.

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: 1 week

Time unit of quarter 1 of 2014 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 och 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 och SE21
- NUTS2 region SE22
- NUTS2 region SE23
- NUTS2 region SE31,SE32 och 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:

No	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 excl. 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+
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

No	Stratum code	Geographic division	Age	Yearly distance travelled (km)	Load capacity (Kg)
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:

No	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
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. 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 kilometres driven for the total journey is calculated, the main type of goods (in respect of kilos) is decided and then a formula (see below) recalculates the average weight on the journey level. The exact figures in kilos are used in the calculations.

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.

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 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. The usual cases are for example deliveries of petrol and oil or rounds for collection of milk. The respondent is asked to indicate the c/d-round with an 'X' in the questionnaire. 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. 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. This means that the possible empty leg must be recorded as a separate journey before and/or after the c/d-round. The information from the Swedish survey in the A2 file and the A3 file is the same regarding type 3 journeys.

We are currently investigating the possibilities to change how the weight for a c/d round is collected. Instead of asking for the average weight for the c/d-round we will start asking for the total loaded weight for the c/d-round. We will probably change this during the first quarter of 2015.

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:

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

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

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

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

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.

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	61 731	61 002
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	12 319	11 627
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	3 100	3 121
Number of cases classified as non-respondents	3 686	3 559
Number of cases where sample register information was wrong and response could not be used	591	575
Number of questionnaires used in analysis	4 942	4 372

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

United Kingdom (National)

Organisation responsible for the conducting the survey: Department for Transport (DfT)

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register:

> 1. Driver Vehicle Licensing Agency (DVLA) for GB-registered vehicles

> 2. Driver Vehicle Agency for vehicles registered in Northern Ireland (DVA NI)

Name of organisation who maintains the register: DVLA and DVL NI

Frequency of update: Ongoing

Frequency of access to draw the samples: Quarterly (Great Britain); Weekly (Northern Ireland)

Arrangements for accessing the register:

> For GB-registered vehicles, a quarterly sample is provided by DVLA based on an agreed specification for the proportion of vehicles required in each stratum for the desired weekly sample.

> For NI-registered vehicles, the sample is extracted and supplied on a weekly basis.

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 and unladen weight.

> Information used in stratification: NUTS1 region of registration and gross train weight.

Procedure for reminders:

> A reminder system is used to chase non-respondents:

> First reminder: sent 2.5 weeks after the end of the survey week.

> Second reminder: sent 5.5 weeks after the end of the survey week

> The response rate is adequate but we do have plans to more regularly review response rates so a third reminder could be introduced if required.

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 2014 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 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 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 = $13 * \dfrac{N}{S}$

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:

1. Vehicles used during the survey week

2. 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)

Optional variables covered: Vehicle empty kilometres; Axle configuration; Degree of loading of the vehicle.

Additional 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)

     — axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

     — vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

     — 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)

     — 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	2012
Total number of relevant goods vehicles in the country	385 200
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	11 216
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	2 021
Number of cases classified as non-respondents	1 482
Number of cases where sample register information was wrong and response could not be used	349
Number of questionnaires used in analysis	7 364

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

United Kingdom (International)

Organisation responsible for the conducting the survey: Department for Transport (DfT)

(Based on information referring to the first quarter of 2014)

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: Every two weeks

Frequency of access to draw the samples: Every two weeks

Arrangements for accessing the register:

> Details of changes to hauliers licensed to undertake international haulage work are taken from applications and decisions every two weeks.

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:

> The first reminder is sent 3 weeks after the end of the survey week.

> The second reminder is sent 6 weeks after the end of the survey week.

> 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):

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

Time unit of quarter 1 of 2014 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

Optional variables covered: Vehicle empty kilometres; Axle configuration; Degree of loading of the vehicle.

Additional 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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (NO)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Number of statistical units (enterprises) in the country	3 240	3 240
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners (some enterprises are sampled more than once in a year)	2 567	2 527
Number of cases where no unit activity was recorded during the sampled period	1 121	1 129
Number of statistical units classified as non-respondents	178	176
Number of cases where sample register information was wrong and response could not be used	3	6
Number of questionnaires used in analysis	3 433	3 276

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Liechtenstein

Organisation responsible for the conducting the survey: Office of Statistics

(Based on information referring to the first quarter of 2010)

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:

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

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.)

Optional variables covered: Vehicle empty kilometres; Type of cargo; Vehicle operator's NACE category of activity; Axle configuration; Degree of loading of the vehicle.

Additional variables collected compared to the legal requirements:

Environmental impact related variables: Type of fuel used.

A1. Vehicle-related variables: none.

A2. Journey-related variables: none.

A3. Goods-related variables: none.

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 (some vehicles are sampled more than once in a year)	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 countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Norway

Organisation responsible for the conducting the survey: Statistics Norway

(Based on information referring to the first quarter of 2014)

Sampling register used for the survey

Name of register: Register of Vehicles

Name of organisation who maintains the register: Directorate of Public Roads

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:

— First quarter 2014: End of November 2013

— Second quarter 2014: End of February 2014

— Third quarter 2014: End of May 2014

— Fourth quarter 2014: End of August 2014

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 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: Age of vehicle, type of vehicle, region in Norway.

From the Commercial Traffic Register is collected information on number of permits for international traffic, geographical location and name and address of the enterprise that hold the permits. This information is used to allocate lorries to an international stratum.

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.

Second reminder: one week after the due date set in the reminder, a new letter is sent to those who still not have answered, telling that they must respond within a new due date one week later to avoid the compulsory fine.

Third 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 25 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: 1 week

Time unit of quarter 1 of 2014 included in the survey: 13 weeks

Stratification:

Stratified sampling is used. The population is divided into two parts, national (lorries

where the owner do not have permit for international traffic) and international (lorries where the owner do have permit for international traffic).

International strata are defined as all lorries belonging to an enterprise which have an EU-licence for travelling abroad. Since the license is not directly connected to a separate lorry, it is not possible to identify all the lorries that are used for international transport. That is why we perform that extra data collection mentioned in the end of item 1.

The population of lorries in the national super-stratum is stratified by region, group of vehicle and age. There are 4 regions, 6 groups of vehicles and 2 age groups. In the international super-stratum, there is no stratification on age, and there are only 3 groups of vehicles. This gives a total of 48 strata in the national super-stratum and 12 strata in the international super-stratum. New lorries and large lorries are overrepresented in the sample.

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 are coded by consignments.

Collection/delivery: Respondents are allowed to decide if the journey can be seen upon 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.

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.

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:

First step: a non-response model is used to correct the bias due to non-response. The stratification is taken into account. Weights are made to gross up results from the usable questionnaire to the sample.

Second step: the weights computed in step 1 are combined with the sample drawing. The sample is then grossed up to national level.

Third step: the weights from step 2 are calibrated against the updated population from the survey quarter. This enables to get the correct amount of vehicles in National and International strata broken divided by regions, vehicle class and type of transport. As the information supplied by the vehicle owner is only for one specific week in the surveyed quarter, the calibrated weights are multiplied by 13.

Fourth and fifth step: an adjustment of this weight is applied to correct under reporting. This adjustment is made by one factor for each of the six groups for the age of the vehicle (three groups) and type of transport (two groups).

As from 1 quarter 2006 we also calibrate the results for the international survey against data on export and import from the External trade statistics (step 5).

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration; Degree of loading of the vehicle.

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)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (YES)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	42 926	43 607
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	7 203	6 973
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	2 162	2 014
Number of cases classified as non-respondents	314	351
Number of cases where sample register information was wrong and response could not be used	533	541
Number of questionnaires used in analysis	4 090	4 057

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

Switzerland

Organisation responsible for the conducting the survey: Swiss Statistics

(Based on information referring to the first quarter of 2014)

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:

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, type designation of vehicle, 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 (tractor 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.

Used in stratification: type of vehicle and maximum permissible laden weight.

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). In 2013, however, a special survey on light goods vehicles was carried out. This survey is planned to be conducted every five years from now on.

Light Vehicles with a maximum permissible laden weight equal or less than 3 500 kg (e.g. vans) cover about 60 % of the vehicle-km and about 6 % of the performance (tkm) in road freight transport in Switzerland.

Time unit: 1 week

Time unit of quarter 1 of 2014 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 strata 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: 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:

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

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.)

This initial grossing factor is then modified by a raking ratio procedure (calibration method). The external data sources used for this method are the total number of vehicle by strata for the survey week and the total distance by class of distance travelled weekly by quarter (data extracted from the LSVA tax).

Optional variables covered: Vehicle empty kilometres; Type of cargo; Axle configuration.

Additional variables collected compared to the legal requirements

Environmental impact-related variables: Type of fuel. Data on emission class and average CO_2-emissions are available from the register.

A1. Vehicle-related variables:

— possibility of using vehicles for combined transport (NO)

— axle configuration according to the nomenclature defined in the Regulation on road transport statistics (NO)

— vehicle operator's NACE Rev. 2 at class level (four-digit level) (YES)

A2. Journey-related variables:

— 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)

— 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	2012	2013
Total number of relevant goods vehicles in the country	50 459	50 419
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 787	9 075
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	858	889
Number of cases classified as non-respondents	3 636	3 999
Number of cases where sample register information was wrong and response could not be used	426	333
Number of questionnaires used in analysis	3 865	3 854

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

The Former Yugoslav Republic of Macedonia

Organisation responsible for the conducting the survey: State Statistical Office

(Based on information referring to the first quarter of 2010)

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 affair

Frequency of update: Once a year in ministry of interior

Frequency of access to draw the samples: once a year

Arrangements for accessing the register: Statistical Office is checking all key variables.

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:

> All working vehicle, damper, crane vehicle, vehicle with shredder for waste, vehicle with container for water supply etc.

Time unit: 1 week

Time unit of quarter 1 of 2010 included in the survey: 13 weeks

Stratification:

> The stratification is made by two groups of economic activities (main activity codes 60230; 60240 and 63210, and others activity) and five groups by tonnage (from 3 500 to 4 999; from 5 000 to 6 999; from 7 000 to 9 999; from 10 000 to 14 999 and from 15 000). 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**: none.

> **A2. Journey-related variables**: none.

> **A3. Goods-related variables**: none.

Main figures	2012
Total number of relevant goods vehicles in the country	5 592
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	3 302
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	1 203
Number of cases classified as non-respondents	1 689
Number of cases where sample register information was wrong and response could not be used	470
Number of questionnaires used in analysis	517

More information in countries specific notes

(https://circabc.europa.eu/w/browse/9eea25b6-ebf2-4961-aed3-6ab27fb95b74)

II

Summary tables

Table 1 – Scope of surveys

Survey	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 not destined to the transport of goods
Bulgaria	yes		yes	Vehicles < 6t MPLW	Vehicles with dimensions exceeding permitted limits of the country; Vehicles not destined to the transport of goods.
Czech Republic	yes		yes	Vehicles < 2t LC	Vehicles with oversized load
Denmark	yes	Road Worthiness Test (RWT)		Vehicles < 6t MPLW	Personally owned vehicles
Germany	yes		yes	Lorries ≤ 3.5t LC	Vehicles not destined to the transport of goods. Vehicles not used for goods transport on public roads (own account only)
Estonia	yes		yes	Lorries < 3.5t LC Vehicles > 25 years	Special purpose vehicles, 10 years old vehicles owned by sole proprietors
Ireland	yes			Vehicles < 2t unladen weight	Vehicles not destined to the transport of goods. Vehicles taxed as non-commercial vehicles
Greece	yes		yes	Vehicles <3.5t LC and < 6t MPLW	
Spain	yes		yes	Vehicles <3.5t LC and < 6t 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 > 32.5t LC Tractors > 44.5t Vehicles < 3.5t weight Vehicles > 15 years	Special purpose vehicles
Croatia	yes	Statistical Business Register	yes	Vehicles < 3.5t LC	Special purpose vehicles
Italy	yes	Tax vehicle register from the Ministry of Economy and Finance Road freight survey register	yes	Vehicles < 3.5t LC Vehicles > 11 years	Vehicles not destined to the transport of goods

Survey	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**
Cyprus	yes			Vehicles < 3 tonnes LC	
Latvia	yes		yes	Vehicles < 3.5 tonnes MPLW Vehicles > 25 years	Special purpose vehicles
Lithuania	yes	Data on road freight vehicles, which passed a roadworthiness test		Vehicles < 6 tonnes LC Vehicles > 25 years	Special purpose vehicles Vehicles not used for goods carriage
Luxembourg	yes		yes	Vehicles < 3.5 tonnes LC	
Hungary	yes		yes	Vehicles < 3.5 tonnes LC	Special purpose vehicles
Malta	yes				
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>40 years	Fire brigade, driving schools, private household, exterritorial organisations
Poland	yes		yes	Vehicles ≤ 3.5 tonnes MPLW and < 1.5 tonnes LC Vehicles > 25 years	Special purposes vehicles
Portugal	yes		yes	Vehicles ≤ 3.5 tonnes MPLW	Vehicles not destined to the transport of goods
Romania	yes			Vehicles < 3.5 tonnes LC Vehicles>25 years	
Slovenia	yes		yes	Vehicles < 2 tonnes LC	Vehicles belonging to users that could not be matched with the Business Register. Special purpose vehicles
Slovakia	yes	Register of operators			
Finland	yes	National: Vehicle Register International: Register of licences for international traffic (VALLU)	Yes (national transport only)	Lorries < 3.5 tonnes MPLW (national transport only)	Special purpose vehicles (national transport only)
Sweden	yes	Commercial Traffic Register Central Register of Corporation	yes	Vehicles ≤ 3.5 tonnes LC Vehicles > 30 years	Special purpose vehicles; Vehicles owned by companies not registered in the Central Register of Corporations

	Sampling base		Vehicle types not covered		
Survey	**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**
United Kingdom	yes	<u>National</u>: Driver Vehicle Licensing Agency for GB-registered vehicles and Driver Vehicle Licensing for Northern Ireland registered vehicles <u>International</u>: Application and Decisions Register from Traffic Area Offices	yes	Vehicles < 3.5 tonnes MPLW (national transport only)	Special purpose vehicles
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 LC	Special purpose vehicles
FYR of Macedonia	yes		yes		Special purpose vehicles

(^{1}) Ministry of Transport or other national organisations.

Table 2 – Type of questionnaire used for the survey

Country	Type of questionnaire
Belgium	Paper questionnaire or questionnaire can be downloaded in Excel format, completed and sent by e-mail
Bulgaria	Paper questionnaire
Czech Republic	Web questionnaire and paper questionnaire
Denmark	Electronic questionnaire
Germany	Web questionnaire
Estonia	Paper questionnaire
Ireland	Paper questionnaire
Greece	Paper questionnaire
Spain	Web questionnaire and paper questionnaire
France	Electronic (dynamic pdf format)
Croatia	Paper questionnaire
Italy	Paper questionnaire
Cyprus	Paper questionnaire
Latvia	Paper questionnaire
Lithuania	Paper questionnaire
Luxembourg	Paper questionnaire (in medium-term, it is planned to offer a data transmission by EXCEL questionnaire)
Hungary	Paper questionnaire
Malta	n.a.
Netherlands	Web questionnaire, electronic transmission of data from transport companies
Austria	Electronic questionnaire and XML transmission (since 2008); and individualised Excel questionnaire (added since 2013)
Poland	Electronic and paper questionnaire
Portugal	Web questionnaire
Romania	Web questionnaire and paper questionnaire
Slovenia	Paper questionnaire
Slovakia	Electronic and paper questionnaire
Finland	Web questionnaire
Sweden	Electronic (pdf format) (plans to develop a web survey for 2015)
United Kingdom	Paper questionnaire
Liechtenstein	Paper questionnaire
Norway	Web questionnaire and paper questionnaire
Switzerland	Web questionnaire (since January 2013)
FYR of Macedonia	Web questionnaire and paper questionnaire

Note: n.a.: not available.

Table 3 – Sampling rate in space (of vehicles, firms), 2013

Survey	Statistical unit	Number of statistical units in the population	Number of statistical units in the sample	Sampling rate in space (%)
Belgium	Tractive vehicle	97 936	45 759	46.7
Bulgaria	Tractive vehicle	138 213	16 000	11.6
Czech Republic	Tractive vehicle	124 872	16 670	13.3
Denmark ([1])	Tractive vehicle	46 785	9 655	20.6
Germany	Tractive vehicle	487 036	187 139	38.4
Estonia	Tractive vehicle	17 698	6 032	34.1
Ireland	Tractive vehicle	75 692	32 062	42.4
Greece	Tractive vehicle	122 772	5 473	4.5
Spain	Tractive vehicle	318 167	56 000	17.6
France	Tractive vehicle	542 784	77 503	14.3
Croatia	Tractive vehicle	25 203	10 400	41.3
Italy	Tractive vehicle	255 605	57 023	22.3
Cyprus	Tractive vehicle	13 142	1 209	9.2
Latvia	Tractive vehicle	20 360	5 200	25.5
Lithuania	Tractive vehicle	39 506	12 772	32.3
Luxembourg	Tractive vehicle	9 694	8 816	90.9
Hungary	Tractive vehicle	73 288	50 088	68.3
Malta	Tractive vehicle	n.a.	n.a.	n.a.
Netherlands	Tractive vehicle	133 337	36 316	27.2
Austria	Tractive vehicle, Local unit	66 749	26 000	39.0
Poland	Tractive vehicle	649 985	50 687	7.8
Portugal	Tractive vehicle	108 287	49 183	45.4
Romania	Tractive vehicle	88 586	32 371	36.5
Slovenia	Tractive vehicle	21 814	8 359	38.3
Slovakia	Tractive vehicle	132 908	10 400	7.8
Finland	Tractive vehicle (national)	102 774	10 000	9.7
	Tractive vehicle (international)	7 456	2 399	32.2
Sweden	Tractive vehicle	61 002	11 627	19.1
United Kingdom	Tractive vehicle (national) ([2])	385 200	11 216	2.9
	Tractive vehicle (international) ([3])	3 240	2 527	78.0
Liechtenstein ([1])	Tractive vehicle	258	314	121.7
Norway	Tractive vehicle	43 607	6 973	16.0
Switzerland	Tractive vehicle	50 419	9 075	18.0
FYR of Macedonia([2])	Tractive vehicle	5 592	3 302	59.0

Note: n.a.: not available.
([1]) Some vehicles may be surveyed several times in the same quarter. ([2]) 2012 data. ([3]) 2009 data.

The sampling rate in space figures (%) have been obtained by calculating as follows: 'Number of statistical units in the sample' divided by 'Number of statistical units in the population'.

Table 4 – Time-based sampling rate, 2014

Survey	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
Czech Republic	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 (2004)	3 days	121	0	n.a.
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	2 days (national) 1 or 2 weeks (international)	182 52 or 26	182 52 or 26	0.55 1.92 or 3.85
Sweden	week	52	52	1.92
United Kingdom	Week (national) Dependant on the firm size for international transport	52	52	1.92
Liechtenstein	week	52	24	4.17
Norway	week	52	52	1.92
Switzerland	week	52	52	1.92
FYR of Macedonia	week	52	52	1.92

Note: n.a.: not available.

The time-based sampling rate figures (%) have been obtained by calculating as follows: 100 divided by 'Number of time units represented in the survey in the year'.

Table 5 – Global sampling rates (in space and in time)

Survey	Collection unit	Sampling rate in space (%)	Sampling rate in time (%)	Global sampling rate in space and in time (%)
Belgium	Vehicle-week	46.7	1.92	0.90
Bulgaria	Vehicle-week	11.6	1.92	0.22
Czech Republic	Vehicle-week	13.3	1.92	0.26
Denmark	Vehicle-week	20.6	1.92	0.40
Germany	Vehicle-half week	38.4	0.96	0.37
Estonia	Vehicle-week	34.1	1.92	0.65
Ireland	Vehicle-week	42.4	1.92	0.81
Greece	Vehicle-week	4.5	1.92	0.09
Spain	Vehicle-week	17.6	1.92	0.34
France	Vehicle-week	14.3	1.92	0.27
Croatia	Vehicle-week	41.3	1.92	0.79
Italy	Vehicle-week	22.3	1.92	0.43
Cyprus	Vehicle-week (national)	9.2	1.92	0.18
Latvia	Vehicle-week	25.5	1.92	0.49
Lithuania	Vehicle-week	32.3	1.92	0.62
Luxembourg	Vehicle-week	90.9	3.57	3.25
Hungary	Vehicle-week	68.3	1.92	1.31
Malta	Vehicle-week	n.a.	n.a.	n.a.
Netherlands	Vehicle-week	27.2	1.92	0.52
Austria	Vehicle-week	39.0	1.92	0.75
Poland	Vehicle-week	7.8	1.92	0.15
Portugal	Vehicle-week	45.4	1.92	0.87
Romania	Vehicle-week	36.5	1.92	0.70
Slovenia	Vehicle-week	38.3	1.92	0.74
Slovakia	Vehicle-week	7.8	1.92	0.15
Finland	Vehicle-week (national)	9.7	0.55	0.05
Sweden	Vehicle-week	19.1	1.92	0.37
United Kingdom [1]	Vehicle-week (national)	2.9	1.92	0.06
Liechtenstein	Vehicle-week	121.7	4.17	5.08
Norway	Vehicle-week	16.0	1.92	0.31
Switzerland	Vehicle-week	18.0	1.92	0.35
FYR of Macedonia [1]	Vehicle-week	59.0	1.92	1.13

Note: n.a.: not available.
[1] Sampling rate in space for 2012.

The global sampling rate figures have been obtained by multiplying the sampling rate in space by the sampling rate in time.

Attention must be drawn to the fact that the first figures refer to 2013, whereas the latter to 2014. The global sampling rate figures should thus be considered provisional, although the sampling rate in time is liable to remain constant for most countries from one year to the next.

Table 6 – Response rate

Survey	Response rate (in %)	
	2012	2013
Belgium	65.35	65.72
Bulgaria	69.82	68.07
Czech Republic	91.92	91.61
Denmark	99.03	98.88
Germany	96.25	95.98
Estonia	75.48	72.41
Ireland	51.10	50.32
Greece	83.77	85.64
Spain	94.34	90.01
France	77.94	80.65
Croatia	80.11	79.67
Italy	25.52	32.18
Cyprus	94.35	94.87
Latvia	78.44	77.15
Lithuania	90.14	90.29
Luxembourg	91.92	89.80
Hungary	87.51	87.90
Malta	n.a.	n.a.
Netherlands	76.59	81.66
Austria	98.47	98.82
Poland	84.65	82.84
Portugal	75.40	86.36
Romania	97.26	95.76
Slovenia	74.50	74.40
Slovakia	87.55	87.74
Finland	58.15	57.08
Sweden	70.08	69.39
United Kingdom	86.79	n.a.
Liechtenstein	99.07	97.77
Norway	95.64	94.97
Switzerland	58.62	55.93
FYR of Macedonia	48.85	n.a.

Note: n.a.: 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, expressed as a percentage.

Table 7 – Register quality

Survey	Register quality (in %)	
	2012	**2013**
Belgium	75.59	76.92
Bulgaria	62.00	60.66
Czech Republic	87.05	84.07
Denmark	91.84	93.16
Germany	94.13	94.24
Estonia	73.82	77.93
Ireland	91.29	93.27
Greece	77.45	77.64
Spain	75.69	75.02
France	73.83	76.95
Croatia	88.34	88.76
Italy	78.41	80.53
Cyprus	95.07	94.86
Latvia	97.94	97.38
Lithuania	78.58	79.38
Luxembourg	100.00	100.00
Hungary	69.37	71.56
Malta	n.a.	n.a.
Netherlands	92.16	91.12
Austria	96.28	96.14
Poland	69.06	74.48
Portugal	76.80	72.05
Romania	93.51	93.88
Slovenia	92.72	92.09
Slovakia	83.55	82.35
Finland	88.55	90.24
Sweden	93.15	92.87
United Kingdom	96.41	n.a.
Liechtenstein	100.00	98.37
Norway	92.26	91.83
Switzerland	91.73	93.44
FYR of Macedonia	70.86	n.a.

Note: n.a.: not available.

The register quality 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, expressed as a percentage.

Table 8 – Precision of results, in terms of Standard error (on total tonnes)

Survey	Standard error (tonnes), in %	
	2012	2013
Belgium	1.97	1.98
Bulgaria	10.37	9.24
Czech Republic	3.42	3.86
Denmark	4.55	3.90
Germany	0.83	0.83
Estonia	10.01	8.95
Ireland	3.23	3.27
Greece	11.34	14.17
Spain	2.01	1.86
France	1.43	1.37
Croatia	4.16	3.83
Italy	3.74	3.41
Cyprus	6.56	6.81
Latvia	6.59	6.84
Lithuania	2.90	2.95
Luxembourg	4.22	3.25
Hungary	2.24	2.25
Malta	n.a.	n.a.
Netherlands	1.88	1.90
Austria	2.21	2.25
Poland	2.70	2.65
Portugal	3.83	3.62
Romania	3.43	3.49
Slovenia	5.01	5.00
Slovakia	6.55	7.04
Finland	5.56	5.89
Sweden	4.67	4.99
United Kingdom	3.17	n.a.
Liechtenstein	7.65	10.68
Norway	5.69	5.26
Switzerland	5.10	5.01
FYR of Macedonia	n.a.	n.a.

Note: n.a.: not available.

Percentage standard error of estimate (95 % confidence).
See volume 1 of 'Road freight transport methodology', i.e. the Reference Manual for the implementation of the Council Regulation No 1172/98 on statistics on the carriage of goods by road, chapters 3 and 7 for more details on the methodology used for the calculation of the percentage standard error.
Reference: Commission Regulation 642/2004 on precision requirements for data collected in accordance with Council Regulation (EC) No 1172/98 on statistical returns in respect of the carriage of goods by road.

Table 9 – Precision of results, in terms of Standard error (on total tonne-kilometres)

Survey	Standard error (tonne-kilometres), in %	
	2012	2013
Belgium	1.36	1.36
Bulgaria	5.51	5.64
Czech Republic	2.38	2.43
Denmark	3.16	3.03
Germany	0.59	0.59
Estonia	5.73	5.41
Ireland	3.15	3.12
Greece	6.69	6.82
Spain	1.67	1.67
France	0.98	0.95
Croatia	3.73	3.69
Italy	3.06	2.71
Cyprus	6.96	9.57
Latvia	4.13	3.99
Lithuania	2.46	2.42
Luxembourg	3.16	2.52
Hungary	1.56	1.55
Malta	n.a.	n.a.
Netherlands	1.39	1.66
Austria	2.30	2.35
Poland	1.79	1.71
Portugal	3.90	3.81
Romania	2.24	2.21
Slovenia	3.55	3.45
Slovakia	4.27	4.32
Finland	5.28	5.30
Sweden	3.43	3.59
United Kingdom	3.45	n.a.
Liechtenstein	9.36	9.19
Norway	3.50	3.45
Switzerland	4.62	4.76
FYR of Macedonia	n.a.	n.a.

Note: n.a.: not available.

Percentage standard error of estimate (95 % confidence).
See volume 1 of 'Road freight transport methodology', i.e. the Reference Manual for the implementation of the Council Regulation No 1172/98 on statistics on the carriage of goods by road, chapters 3 and 7 for more details on the methodology used for the calculation of the percentage standard error.
Reference: Commission Regulation 642/2004 on precision requirements for data collected in accordance with Council Regulation (EC) No 1172/98 on statistical returns in respect of the carriage of goods by road.

Table 10 – Optional variables provided by the reporting countries

Survey	Vehicle empty kilometres	Type of cargo	Vehicle operator's NACE category of activity	Axle configuration	Degree of loading of the vehicle	Possibility of using vehicles for combined transport
Belgium	x	x	x	x	x	x
Bulgaria	x	x		x	x	
Czech Republic	x	x	x	x		
Denmark	x		x	x	x	x
Germany	x	x		x	x	
Estonia	x	x		x	x	
Ireland	x	x		x		
Greece	x	x	x	x	x	x
Spain	x	x	x	x	x	
France	x	x	x	x	x	
Croatia	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
Luxembourg	x	x	x	x		
Hungary	x	x	x			x
Malta						
Netherlands	x	x		x	x	
Austria	x	x	x	x	x	
Poland	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	x	x
Sweden	x	x	x	x	x	
United Kingdom	x			x	x	
Liechtenstein	x	x	x	x	x	
Norway	x	x		x	x	
Switzerland	x	x		x		
FYR of Macedonia						

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