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# Road freight transport methodology

Volume 2

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





This is volume 2 of *Road freight transport methodology.* Volume 1 is also available:

Road freight transport methodology – Reference manual for the implementation of Council Regulation N° 1172/98 on statistics on the carriage of goods by road

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# INTRODUCTION

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

This document, integrated in the Reference manual for the implementation of the Council Regulation No 1172/98 on statistics on the carriage of goods by road, published in the "Methods and nomenclatures" collection, 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 countries. These questionnaires updated the existing information up to the first quarter of 2004 and included some new questions on the simplifying assumptions used in recording journey data sent to Eurostat.

Part B includes summary tables, with the basic information on sampling, response rate, register quality and precision of results of the surveys. Information for New Member States and candidate countries have been, as well, integrated in the manual, but due to limited data availability, the summary tables are not complete for these countries

Data on the register used to draw the sample and the sampling methodology is relevant to the surveys conducted in the first quarter of 2004, while the main figures given for each country refer to the years 2001, 2002 and 2003, 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 Bs tables.

# PART A

Methodologies used in surveys of road freight transport in Member States and Candidates Countries

# BELGIUM

#### SAMPLING REGISTER USED FOR THE SURVEY

Name of register. Parc et Immatriculation des véhicules à moteurs neufs et d'occasion.

#### Name of organisation who maintains the register:

Ministry of Communication and Infrastructure (DIV/OCR)

Frequency of update: Every month

Frequency of access to draw the samples: Every week

Arrangements for accessing the register: Access to the magnetic tapes of O.C.R.

#### Information obtained from the register:

Name, address, OCR number, license plate number, registration number, VAT number, load capacity, type of vehicle, type of body, brand and unladen weight.

Procedure for reminders: 2 reminders are sent

# SAMPLING METHODOLOGY

#### Statistical unit: Tractive unit

#### Types of units excluded:

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

# Time unit: 1 week

# Time units of quarter 1 of 2004 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.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Tonne-kilometres = Tonnes \* km / 2

*Multi stop:* Tonne-kilometres = Tonnes \* km \* 2/3

Collection/delivery: None

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	125 721	121 057
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	63 338	62 344
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	12 361	10 490
Number of cases classified as non-respondents	6 822	11 859
Number of cases where sample register information was wrong and response could not be used	11 552	10 123
Number of questionnaires used in analysis	32 603	29 416

# **CZECH REPUBLIC**

# 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 firm, territorial unit (districts), type of body of goods road vehicle, weight category, vehicle type, year of manufacture, 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 and 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. Total return rate by this procedure is about 93%.

# SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle, Transport firm

# Types of units excluded:

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

# Time unit: 1 week

Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The sample is stratified according to 8 territorial units and 5 weight categories.

- 1. Weight categories:
  - 2 6 tonnes
  - 6 10 tonnes
  - More than 10 tonnes tippers
  - More than 10 tonnes others (excluded tippers and tractors)
  - Tractors
- 2. Territorial units
  - Prague
  - Central Bohemia
  - Southern Bohemia
  - Western Bohemia
  - Northern Bohemia
  - Eastern Bohemia
  - South Moravia
  - North Moravia

The strata code consists of 2 numbers. The first is code of weight category and the second is code of territorial unit.

# Simplifying assumptions used in recording journey data sent to Eurostat:

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

Multi stop: None

Collection/delivery: None

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country at mid-point of year	164 389	161 079
Number of vehicles selected for initial sample and questionnaires despatched to vehicle owners	9 803	9 715
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	2 716	2 602
Number of cases classified as non-respondents	665	676
Number of cases where sample register information was wrong and response could not be used	1 540	1 532
Number of questionnaires used in analysis	4 882	4 905

# **DENMARK (National)**

#### SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Vehicle Register

Name of organisation who maintains the register: Central Vehicle Register / Statistics Denmark

Frequency of update: Monthly

Frequency of access to draw the samples: Quarterly

Arrangements for accessing the register:

#### Information obtained from the register:

Name, address, load capacity, gross weight, type of vehicle, type of body, axles, registration number and enterprise number.

Procedure for reminders: 4 reminders followed by legal proceedings.

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Road vehicles with a maximum permissible laden weight below 6 tonnes.

Time unit: 1 week

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The sample is drawn at random within 14 strata. The stratification variables used are:

Type of vehicle (Road tractor /Lorry) by:

- Size of road tractors (3 classes according to gross weight: <=18 tonnes; >18 – 24 tonnes; >24 tonnes)

- Size of lorry with draw hook (3 classes according to gross weight: >15 – 18 tonnes; >18 – 24 tonnes; >24 tonnes)

- Other lorries without draw hook or having a gross weight of >6-15 tonnes (1 class)

The Neyman rule is used for allocation of the sample to strata. The estimated standard deviations on tonnes-kilometers per strata were used as criterion for the optimization. The sample is equal distributed on the weeks of the quarter.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* We assume that a laden journey of type 1 carries only one type of commodity. If more types of goods are transported and one type of goods is dominating (more than 66%) the dominating one is used for the coding. If no type of goods is dominating the class 24 (miscellaneous) is used.

*Multi stop:* In the Danish survey on national transport of goods by road laden journeys are either of type 1 (single stop) or of type 3 (collection/delivery).

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

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	43 798	43 504
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	3536	3 536
Vehicles not used for national transport	1342	1 368
Number of cases classified as non-respondents	36	45
Vehicles sold or scrapped	333	326
Number of questionnaires used in analysis	1825	1 797
Estimated percentage sample error (tonnes)		7.2 %
Estimated percentage sample error (tonnes-kilometers)		5.8 %

# **DENMARK (International)**

# SAMPLING REGISTER USED FOR THE SURVEY

*Name of register:* Register of enterprises having regular international transport of goods by road - Vehicle Register

- Enterprise Register

Name of organisation who maintains the register: Statistics Denmark

Frequency of update: Quarterly

Frequency of access to draw the samples: Quarterly

Arrangements for accessing the register:

#### Information obtained from the register:

Name, address, gross weight, load capacity, type of vehicle, type of body, axles, registration number and enterprise number.

Procedure for reminders: 4 reminders followed by legal proceedings

# SAMPLING METHODOLOGY

Statistical unit: The enterprise.

#### Types of units excluded:

No relevant enterprises are excluded but the survey concentrates on transport by road vehicles with a maximum permissible laden weight above 6 tonnes.

*Time unit:* 1 week for small enterprises and half a week for the other enterprises.

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The sample is drawn at random within 24 strata. The stratification variables used are:

- Type of transport (2 classes. Own account; Hire or reward)

- Size of enterprise (4 classes: 1-2 vehicles; 3-9 vehicles; 10+ vehicles; unknown=new enterprises)

- Address of vehicle user (4 classes: Copenhagen; Zealand, Funen, etc; Jutland South; Jutland North)

- New enterprises by geography (4 classes)

Small enterprises are selected once a year; medium size enterprises are selected twice a year; large enterprises are included in each quarterly sample. The sample is equal distributed on the weeks/half-weeks of the quarter.

Enterprises are to report international journeys for vehicles that cross the Danish border in a reference period. All journeys are included from departure to arrival back to Denmark.

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* We assume that a laden journey of type 1 carries only one type of commodity. If more types of goods are transported and one type of goods is dominant (more than 66%) the dominant one is used for the coding. If no type of goods is dominant the class 24 (miscellaneous) is used.

*Multi stop:* For multi stop journeys each transport operation is reported. The journey data are derived from the goods data.

*Collection/delivery:* Journeys of type 3 (collection/delivery) are not accepted in the Danish survey of international transport. Such – rare - journeys are reported as multi stop journeys or as an artificial single stop journey

Main figures	Year 2002	Year 2003
Number of enterprises in international traffic	1 276	1 241
Number of enterprises in sample (some enterprises are sampled more than once a year)	2668	2 584
Number of cases classified as non-respondents	69	53
Usable responses (enterprises)	2599	2 531
Number of vehicle questionnaires used in analysis	3638	3 521
Estimated percentage sample error (tonnes)		3.1 %
Estimated percentage sample error (tonnes-kilometers)		2.7 %

# GERMANY

# 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:* Type of vehicle and body type, owner group, region of registration, maximum permissible laden weight and load capacity.

*Information to conduct the survey:* License plate number, name and address of the vehicle owner, maximum permissible laden weight, load capacity, type of vehicle and body type and 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 and 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 23 days after the reminder, if the questionnaire is still not received.

# SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle

# Types of units excluded:

Lorries < 3.501 tonnes load capacity, military vehicles, vehicles of public administrations and agricultural tractors.

Time unit: Half a week.

Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

There are 315 classes. The stratification is hierarchical, according to 4 levels (number of categories in brackets):

1 <sup>st</sup> level:	type of vehicle (2)
2 <sup>nd</sup> level:	body type of lorry (4) and/or type of operator (2)
3 <sup>rd</sup> level:	region of registration of lorry with normal body type or road tractor (27)
4 <sup>th</sup> level:	lorry – load capacity (1-4)
	road tractor – maximum permissible laden weight (1-4)

The differentiation on level 1 and 2 is as follows:

Type of vehicle: lorry

road tractor

Lorry: lorries with special body type by type

- tanker lorries for inflammable liquids
- lorries designed for the transport of swap-bodies and containers
- others with special body type

lorries with normal body type by type of operator:

- transport and communications
- others

Road tractor: road tractors by type of operator:

- transport and communications
- others

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* If on a type 1 journey (single stop) several different types of goods are transported, the type of goods with the uppermost weight is reported in data set A3. In detail data is reported as follows:

A3:	8-A3.1 9 – A3.2	Type of goods with the uppermost weight (in case of different types) Weight of goods transported on the journey
	10 – A3.3	(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	Point of loading (begin of journey)
	13 – A3.6	Point of unloading (end of journey)
	14 – A3.7	Distance traveled on the journey
A2:	12 – A2.2	= A3.2
	13 – A2.3	= A3.5
	14 – A2.4	= A3.6
	15 – A2.5	= A3.7
	16 – A2.6	= A3.2 * A3.7

*Multi stop:* In case of a multi-stop-journey in data set A3 the various stops (points of loading and/or unloading) and the load transported from one point to the next stop are reported. In case several different types of goods are transported, the type of goods with the uppermost weight at a time is reported. In detail data is reported as follows:

A3: 8 – A3.1 9 – A3.2
10 – A3.3
Type of goods with the uppermost weight (in case of different types) Weight of goods transported between two successive stops (points) Classification of the first dangerous good 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 between two successive stops (points)
	12 – A3.5	First point of loading respectively stop during the journey
	13 – A3.6	Last point of unloading respectively stop during the journey
	14 – A3.7	Distance traveled between two successive stops (points)
A2:	12 – A2.2	(Sum of (A3.2 * A3.7)) / (sum of A3.7)
	13 – A2.3	First point of loading $(= A3.5 \text{ if GoodsN} = 1)$
	14 – A2.4	Last point of unloading (= A3.6 if GoodsN = max)
	15 – A2.5	Sum of A3.7
	16 – A2.6	Sum of (A3.2 * A3.7)

*Collection/delivery:* These are journeys up to 30 km distance and several points of loading and/or unloading. With the aim to reduce the burden of statistics the respondent is not asked for details of all the stops but the number of stops. In detail data is reported as follows

- A3: 8 A3.1 Type of goods of the first quoted good in the questionnaire (in case of different goods quoted; it is assumed, that the first is the main one)
  - 9 A3.2 Weight of goods transported on the journey
  - 10 A3.3 Classification of the first dangerous good 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 First point of loading (begin of journey)
  - 13 A3.6 Last point of unloading (end of journey)
  - 14 A3.7 Distance travelled on the journey
- A2 12 A2.2 = A3.2
  - 13 A2.3 = A3.5
  - 14 A2.4 = A3.6
  - 15 A2.5 = A3.7
  - 16 A2.6 = A3.2 \* A3.7

*Other variables:* In case of journeys where the vehicle operates as a shuttle between one point of loading and one point of unloading the single journeys are reported as laden journeys (journey type 1) or empty journeys (journey type 4). See also above.

Main figures	Year 2002	Year 2003
Number of statistical units in the country	564 701	542 301
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners	220 101	213 918
Number of cases where no unit activity was recorded during the sampled period	49 340	42 996
Number of statistical units classified as non-respondents	7 042	7 775
Number of cases where sample register information was wrong and response could not be used	14 914	12 462
Number of questionnaires used in analysis	148 805	150 685

# **ESTONIA**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Estonian National Motor Vehicle Registration Centre

#### Name of organisation who maintains the register:

Ministry of Transport and Communications (Vehicle Register)

#### Frequency of update: Continuously

#### Frequency of access to draw the samples: Once a quarter

#### Arrangements for accessing the register:

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

#### Information obtained from the register:

Registration number of vehicle, mark of vehicle, model of vehicle, carrying capacity, gross-weight, year of manufacture, name of owner, address of the owner, user of the vehicle and region (Tallinn with area around it or the rest of Estonia).

Used in stratification: registration number of vehicle and region.

#### Procedure for reminders:

The Statistical Office of Estonia has a standard routine for reminders:

*First reminder:* 4 weeks after the surveyed week

Second reminder: 7 weeks after the surveyed week, but only to the enterprises, which own the vehicle.

For private person who owns a vehicle only the first reminder is sent.

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Special cars - vehicles not dealing with carrying of goods. Vehicles with a year of manufacture over 20 year.

According to the estimations made, the survey does not cover 1% of total vehicle-km of Estonia.

# Time unit: 1 week

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The indicators of stratification are:

- 1. Region 2 strata on the basis of region:
  - Tallinn and area around it: Harju County
  - The rest of Estonia
- 2. Carrying capacity 5 strata on the basis of carrying capacity:
  - Road tractors
  - Vehicles with the carrying capacity 1000-4999
  - Vehicles with the carrying capacity 5000-9999
  - Vehicles with the carrying capacity 10 000 and more
  - Vehicles with unknown carrying capacity

On the assumption of previous distribution, 10 strata are obtained:

1. Road tractors, region Tallinn and area around it - Stratum TA1

2. Road tractors, the rest of Estonia - Stratum EE1

3. Vehicles with the carrying capacity 1000-4999, region Tallinn and area around it - Stratum TA2

4. Vehicles with the carrying capacity 1000-4999, the rest of Estonia - Stratum EE1

5. Vehicles with the carrying capacity 5000-9999, region Tallinn and area around it Stratum - TA3

6. Vehicles with the carrying capacity 5000-9999, the rest of Estonia - Stratum EE3

7. Vehicles with the carrying capacity 10 000 and more, region Tallinn and area around – Stratum 4  $\,$ 

8. Vehicles with the carrying capacity 10 000 and more, the rest of Estonia - Stratum EE4

9. Vehicles with unknown carrying capacity, region Tallinn and area around it - Stratum TA5

10. Vehicles with unknown carrying capacity, the rest of Estonia - Stratum EE5

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* 2 simplifying assumptions are made:

- If more than one goods commodity is carried, it is coded as "mixed goods" type 24.

- If mixed goods are selected, then goods loading type will be set according to this good which weight (kilograms) is bigger than others.

Multi stop: Same as for single stop.

Collection/delivery: Same as for single stop.

Other variables: We assume that within one journey only one commodity is carried.

Main figures	Year 2003
Total number of relevant goods vehicles in the country	60 750
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	6 236
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	1 496
Number of cases classified as non-respondents	1 800
Number of cases where sample register information was wrong and response could not be used	2 161
Number of questionnaires used in analysis	779

# GREECE

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Register of the Ministry of Transport

Name of organisation who maintains the register: Ministry of Transport

Frequency of update: Monthly

Frequency of access to draw the samples: Once a year.

# Arrangements for accessing the register:

NSSG has access to all the administrative registers.

# Information obtained from the register:

Name, address load capacity, type of vehicle, type of body and registration number.

*Used in stratification:* Type of use of the vehicle, address (Nuts 1 level), load capacity and type of body.

# Procedure for reminders:

The selected units must reply within a month. If during this period the units do not reply, they will receive a reminder with a new deadline of 15 days. After this reminder, if no response is received and the responding rate is very low for the specific data, then a personal interview is organised.

# SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

# Types of units excluded:

Vehicles with low road capacity (less than 3.5 tonnes weight capacity and less than 6 tonnes of maximum permissible weight).

Military vehicles and those belonging to Public Administrators.

Vehicles whose use is not for transport of goods: excavator, roller, etc.

# Time unit: 1 week

Time units of quarter 1 of 2004 included in the survey: 7 weeks.

# Stratification:

The strata are defined by:

- The use of the vehicle, as in Greece a vehicle can have a permission for private use or for public use. In the first case the code number 1 is used and in the second case the code number 2.

- The address of the vehicle. The level of geographic division is NUTS 1, so we have four code numbers (1,2,3,4).

- The load capacity and the type of vehicle body.

With this stratification, the following five strata are obtained:

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.

# Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Not available.

*Multi stop:* Not available.

Collection/delivery: Not available.

Other variables: Not available.

Main figures: Not available

# **SPAIN**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Registro de Ordenación del Transporte Terrestre

Name of organisation who maintains the register: Ministry of 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.

*Used in stratification:* Type of transport, range of authorisation of action of the vehicle, 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 2004 included in the survey: All (13 weeks)

#### Stratification:

There are 12 strata:

Type of transport:

1: own account 2: hire or reward

Range of authorisation:

- 1: national range
- 2: other more reduced range of action

Type of vehicle and weight capacity:

- 1: lorries of 3.6 to 10 tonnes
- 2: lorries of 10.1 to 18 tonnes
- 3: lorries of over 18 tonnes
- 4: tractors

Code	Type of transport	Range of authorisation	Type of vehicle and weight capacity
1	Hire or reward	National	3.5 – 10 tonnes
2	Hire or reward	National	10.1 – 18 tonnes
3	Hire or reward	National	+ 18 tonnes
4	Hire or reward	National	Tractors
5	Own account	All	3.5 – 10 tonnes
6	Own account	All	10.1 – 18 tonnes
7	Own account	All	+ 18 tonnes
8	Own account	All	Tractors
9	Hire or reward	Other	3.5 – 10 tonnes
10	Hire or reward	Other	10.1 – 18 tonnes
11	Hire or reward	Other	+ 18 tonnes
12	Hire or reward	Other	Tractors

# Simplifying assumptions used in recording journey data sent to Eurostat:

#### Single stop: None

# Multi stop: None

*Collection/delivery:* Without points of loading and/or unloading of the goods, Tonne-kilometres = maximum tonnes \* kilometers / 2. Only the main type of goods is requested (but all the tonnes).

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	309 365	327 529
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	41 600	42 400
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	6 620	9 296
Number of cases classified as non-respondents	3 064	2 668
Number of cases where sample register information was wrong and response could not be used	3 958	5 207
Number of questionnaires used in analysis	30 549	38 514

# FRANCE

#### SAMPLING REGISTER USED FOR THE SURVEY

*Name of register*: Fichier Central des Automobiles

#### Name of organisation who maintains the register:

Ministère de l'Equipement, des Transports, de l'Aménagement du Territoire, du Tourisme et de la Mer

*Frequency of update:* The register is updated daily, but a quarterly update is used for the survey

#### Frequency of access to draw the samples: Quarterly

#### Arrangements for accessing the register:

Since July 2001, the Ministry is in charge of drawing the sample, on a quarterly basis, from a copy of the 'Fichier Central des Automobiles'.

#### 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 2004 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.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: None

#### Multi stop: None

*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.

Year 2002	Year 2003
475 874	593 278
76 486	85 030
12 801	13 131
13 946	16 337
10 283	16 143
2 007	2 819
37 449	39 419
	Year 2002 475 874 76 486 12 801 13 946 10 283 2 007 37 449

# IRELAND

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: QA08\_NVDF\_2.REG

Name of organisation who maintains the register: Central Statistics Office

Frequency of update: Every 8 weeks

#### Frequency of access to draw the samples: Every 4 weeks

#### Arrangements for accessing the register:

Every 8 weeks the CSO receives a file from the Department of the Environment Heritage and Local Government (DOEHLG), Vehicle Registration Unit. This file contains details of every vehicle taxed as a goods vehicle in the state. This file is used to update the CSO register of goods vehicles. The CSO register contains only vehicles of unladen weight 2000 kg or over. Newly licensed vehicles from the DOEHLG file that are not on the CSO register are added to the CSO register. Vehicles on the CSO register that are not on the DOEHLG file are deleted from the CSO register. At this time also, vehicles on the CSO register on which the tax has expired more than 3 years ago are also deleted from the CSO register.

#### Information obtained from the register:

The data obtained from the register are as follows:

- Year and month when the tax on the vehicle expires
- Motor taxation office in which the vehicle was taxed
- Unladen weight of the vehicle
- Registration number of the vehicle
- SIMI code of the vehicle
- Year of manufacture of the vehicle
- Trailer code (to show if the vehicle is used with a trailer)

- License code (to show if the vehicle is licensed for carriage of owner's goods only or for hire or reward)

- Fuel type of vehicle
- Body type of vehicle
- Name and address of owner of vehicle
- Date of first registration of vehicle

Two new variables are created:

- Age – calculated from the year of manufacture of the vehicle (there are 3 age categories)

- Size – calculated from the unladen weight of the vehicle (there are 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 register of forms issued is kept. When a form is returned it is receipted and a receipt code is entered on the register of forms issued. There is a standard system for reminders. For forms, which have not been returned, reminders are issued 10 days and 20 days after the end of the survey week. When it is time to do reminders for a certain week, a program is run to check the issue register of forms to see which ones have been receipted. For any forms that have not been receipted, a reminder is generated and posted out to the respondent. The same procedure is used for both first and second reminders.

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Goods vehicles with an unladen weight of less than 2000 kg are excluded from the survey

#### Time unit: 1 week

#### Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The following table shows the basis of the stratification used. It shows the 20 stratum number codes that are used for grossing. It also shows the 9 stratum number codes that are used for sample selection. Different sampling rates are applied to the different sample selection strata. 15% of vehicles in selection strata 1, 4 and 7 are sampled, 50% of vehicles in selection strata 2, 5 and 8 are sampled and 90% of vehicles in strata 3, 6 and 9 are sampled. Any vehicle should be sampled only once in any one survey year, for this reason vehicles already sampled in a survey year are eliminated from the selection process.

Vehicle Characteristics			Stratum Number		
Year of Manufacture	Unladen Weight	Taxation Use <sup>1</sup>	Year of First Registration	Grossing Up	Sample Selection
Before 1995	2-5 tonnes	Immaterial	Immaterial	1	1
"	5-10 tonnes	Own Account	"	2	
"	"	Hire or	"	3	2
		Reward		Ū	_
"	10 tonnes or	Own Account	"	4	
	over			•	
"	"	Hire or	"	5	3
		Reward		Ũ	
1995 to 1999	2-5 tonnes	Immaterial	"	6	4
"	5-10 tonnes	Own Account	"	7	·
**	"	Hire or	"	8	5
		Reward		0	Ŭ
**	10 tonnes or	Own Account	"	q	
		Own Account		5	
٤٢	"	Hire or	"	10	6
		Poward		10	
2000 or lator	2.5 toppos	Immotorial	Roforo 1000	11	
2000 OF later	2-5 1011165	"	1000 or lator	12	7
"	E 10 tennes	Own Account	Defere 1000	12	
"	5-10 tonnes	Own Account	1000 or lotor	13	
"	"	Lliro or	Defere 1000	14	0
		Hire or	Belore 1999	15	õ
66	"	Reward	1000	10	
66	10 1		1999 or later	16	
	10 tonnes or	Own Account	Before 1999	17	
"	over "	"	1000 - 1 - 1	40	
			1999 or later	18	9
•		Hire or	Before 1999	19	-
"	"	Reward			
££	**	"	1999 or later	20	

Definition of Strata used in Sample Selection and in the Grossing up of Survey Returns

<sup>1</sup> This is the use (viz. carriage for hire or reward or own account carriage) stated by the reporter when taxing the vehicle.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* The data entry system can only take one goods type code so if there is more than one type of goods carried on the journey then the commodity will have to be recorded as a mixed load.

*Multi stop:* The data entry system can only take one origin & destination for a journey. The origin and destination, number of collection stops & weight of goods collected and number of delivery stops & weight of goods delivered are recorded. There is no facility to enter tonne-kilometres on the data entry system so tonne-kms are calculated using formulas.

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

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	78 753	81 040
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	23 777	29 457
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	3 724	4 029
Number of cases classified as non-respondents	10 124	13 904
Number of cases where sample register information was wrong and response could not be used	4 597	4 762
Number of questionnaires used in analysis	5 332	6 762

# ITALY

#### SAMPLING REGISTER USED FOR THE SURVEY

*Name of register:* 1. National Vehicle register.

2. Tax Vehicle register.

# *Name of organisation who maintains the register:* 1. Ministry of Transport.

2. Ministry of Economy and Finance.

#### Frequency of update: Monthly

#### Frequency of access to draw the samples: Once a year

#### Arrangements for accessing the register:

The owner of the register draws the sample for the road transport statistics survey manager according to the stratification designed for the survey. The road transport manager provides to the owner of the national vehicle register:

- Sampling frame specifically designed to cover the population adequately and completely

- List of the variables
- Operational flow chart showing all steps of the extraction process

#### Information obtained from the register:

The two databases extracted from the registers are submitted to the following actions:

- Structure analysis
- Cleaning program

Then a special procedure creates a record layout for each license plate: technical data are extracted from the national vehicle register and data on the enterprise are extracted from tax vehicle register.

The national vehicle register provides data on the vehicle:

License-plate, place in which the vehicle has been registered, load capacity, maximum permissible weight, number of axles, year of first registration, type of transport (for hire or reward or on own account).

#### The Tax Vehicle register provides data on the enterprise:

Name of the operator of vehicle, address of the operator (zip code – town - streetnumber), type of company, vat number, flag leasing.

The variables used in the stratification of the sample are:

- Type of transport: hire or reward or on own account

- Firm dimension: number of road vehicles belonging to the enterprise (leased vehicles + owned vehicles)

- Region in which the vehicle has been registered (21)

Procedure for reminders: Studies for implementing standard routine of reminders are under way.

#### SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle

# Types of units excluded:

Agricultural vehicles, military vehicles and vehicles belonging to central or local public administrations. road transport vehicles with a load capacity < 3.5 tonnes. All road transport vehicles more than 11 years old (from first registration).

#### Time unit: 1 week

#### Time unit of quarter 1 of 2004 included in the survey: 7 weeks.

#### Stratification:

The sampling plan is specifically designed on two phases, of which the second is stratified.

The units considered in the first phase (time-based) are quarters: seven weeks are surveyed in each quarter.

The statistical units of the second phase are all goods road vehicles (the vehicles more than 11 years old have been excluded); the sampling plan is stratified:

#### a. Type of transport

- Hire or reward = 1
- Own account = 2

#### b. Firm dimension (based on the number of vehicles owned and in leasing)

- From 1 to 3 vehicles	= 1
- From 4 to 10 vehicles	= 2
- More than 10 vehicles	= 3

#### c. Place of first registration (region)

- Piemonte	= 01
- Valle d'Aosta	= 02
- Lombardia	= 03
- Veneto	= 05
- Friuli Venezia Giulia	= 06
- Liguria	= 07
- Emilia Romagna	= 08
- Toscana	= 09
- Umbria	= 10
- Marche	= 11
- Lazio	= 12
- Abruzzo	= 13
- Molise	= 14
- Campania	= 15
- Puglia	= 16
- Basilicata	= 17
- Calabria	= 18
- Sicilia	= 19
- Sardegna	= 20
- Provincia di Trento	= 22
- Provincia di Bolzano	= 23

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* When in a laden journey several types of goods are transported we ask the haulier to describe only the main one.

*Multi stop:* To date the staff is able to restructure the details provided by the hauliers on the questionnaire; so the original journey often is restructured into several one stop journey.

*Collection/delivery:* We ask the respondent to describe for ex: collection rounds under a simplified scheme: total loaded distance traveled, total weight of goods collected, total weight of goods delivered, origin, final destination.

*Other variables:* For dataset A1 "the vehicle related variables" are connected to the configuration at the beginning of the first laden journey made during the survey week: no successive configurations are recorded.

Main figures	Year 2003
Total number of relevant goods vehicles in the country	260 687
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	79 991
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	6 015
Number of cases classified as non-respondents	43 727
Number of cases where sample register information was wrong and response could not be used	6 548
Number of questionnaires used in analysis	23 702

# **CYPRUS (National)**

# 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

#### Information obtained from the register:

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

#### Procedure for reminders:

Post and follow-up conduct the survey basically by personal visits for non-responses

# 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 2004 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 survey started in January 2002.

#### Simplifying assumptions used in recording 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\* km the sum of weight received plus the weight delivered multiplied by the distance covered is divided by 1500.

*Collection/delivery:* For the calculation of tonnes\* km the sum of weight received plus the weight delivered multiplied by the distance covered is divided by 2000.

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	9 506	10 123
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	1 612	1 612
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	359	331
Number of cases classified as non-respondents	31	25
Number of cases where sample register information was wrong and response could not be used	151	146
Number of questionnaires used in analysis	1 071	1 110

# **CYPRUS** (International)

# 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: Full coverage

#### Arrangements for accessing the register:

Very good-operation of the Statistical service with the Road Transport Department

#### Information obtained from the register:

Full coverage the international movements of freight (inbound and outbound journeys) of vehicles and enterprises.

#### Procedure for reminders:

There is no non-response. All transport vehicles moving on international roads to filled statistical forms of departure or arrival at the ports in Cyprus.

# SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

Types of units excluded: None

Time unit: All journey

# Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

Collected overall data of the international freight transport

# Simplifying assumptions used in recording journey data sent to Eurostat:

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

Multi stop: This type of journey does not take place in International Road transport.

Collection/delivery: This type of journey does not take place in International Road transport.

Other variables: None

Main figures: Not available
# LATVIA

## 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 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:

Used for sample: place of registration, load capacity, road tractor or not and year of production.

Used for stratification: load capacity and year of production.

#### Procedure for reminders:

Central Statistical Bureau of Latvia has a standard routine for reminders:

Questionnaires were sent out 7 days before the start of the survey week with a request to send back the questionnaire within 5 days following the survey week. A prepaid envelope for answer has been enclosed. If the respondent did not reply, a remainder containing another copy of the questionnaire has been sent on the 19<sup>th</sup> day following the survey week. If the respondent did not reply again another remainder letter has been sent after 4 weeks. All this work has been done at the central office of the CSB. Regional offices have not involved in the survey.

Total response rate in 1 quarter 2004 was 87.4%. The main reason for non-response was the impossibility to get in touch with the respondent (91% of all non-response cases).

The analysis of the response rate depending on whether a legal or natural person owns the vehicle shows that the response level is much lower in the group of vehicles owned by natural persons (88.2% for legal persons and 58.4% for natural persons in 2003). This can be explained by the fact that according to current legislation legal persons are obliged to provide information requested by the Central Statistical Bureau whereas natural persons may submit information on the vehicles under their ownership on a voluntary basis.

# SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

# Types of units excluded:

Special purpose vehicles such as truck cranes, fire-flightiness vehicles, road maintenance vehicles and other special purpose vehicles are excluded from the survey

#### Time unit: 1 week

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

Strata	Load capacity	Region	Year of production *
1	≤1.5t	Riga including the district of Riga	All
2	≤1.5t	The rest of Latvia	All
3	>1.5t and ≤5t	Riga including the district of Riga	All
4	>1.5t and ≤5t	The rest of Latvia	All
5	>5t and ≤10t	Riga including the district of Riga	1998 – 2004
6	>5t and ≤10t	Riga including the district of Riga	1991 – 1997
7	>5t and ≤10t	Riga including the district of Riga	Before 1991
8	>5t and ≤10t	The rest of Latvia	1998 – 2004
9	>5t and ≤10t	The rest of Latvia	1991 – 1997
10	>5t and ≤10t	The rest of Latvia	Before 1991
11	>10t	Riga including the district of Riga	1998 – 2004
12	>10t	Riga including the district of Riga	1991 – 1997
13	>10t	Riga including the district of Riga	Before 1991
14	>10t	The rest of Latvia	1998 – 2004
15	>10t	The rest of Latvia	1991 – 1997
16	>10t	The rest of Latvia	Before 1991
17	Road tractors	Riga including the district of Riga	1998 – 2004
18	Road tractors	Riga including the district of Riga	1991 – 1997
19	Road tractors	Riga including the district of Riga	Before 1991
20	Road tractors	The rest of Latvia	1998 – 2004
21	Road tractors	The rest of Latvia	1991 – 1997
22	Road tractors	The rest of Latvia	Before 1991

\* For survey in year 2004. The boundaries are changed each year by adding one year to each of them.

The sample is drawn for each month. All transport units are distributed across various strata and the sample of corresponding size has been selected within each stratum. The vehicles within the monthly sample have been randomly arranged and within the frame of each stratum the same number of vehicles appeared in the weekly sample of each respective month.

The vehicles sampled in previous samples of six months are not sampled in current sample. This is done to reduce the burden of respondents.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* In this case these commodities are treated as NST/R group 24-miscellaneous articles.

*Multi stop:* In this case these commodities are treated as NST/R group 24- miscellaneous articles.

*Collection/delivery:* In this case these commodities are treated as NST/R group 24-miscellaneous articles.

Other variables: None

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	114 509	118 556
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	5 200	6 240
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 651	14
Number of cases classified as non-respondents	826	920
Number of cases where sample register information was wrong and response could not be used	170	223
Number of questionnaires used in analysis	2 553	5 083

# LITHUANIA

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: The database of the registered road vehicles

Name of organisation who maintains the register: State enterprise 'Regitra'

Frequency of update: Continuously

# Frequency of access to draw the samples: Once a quarter

# Arrangements for accessing the register:

The data are forwarded from State enterprise 'Regitra' at specified dates of deliveries.

The dates for sampling are:

- First quarter 10 December
- Second quarter 14 February
- Third quarter 16 May
- Fourth quarter 14 August

# Information obtained from the register:

Registration number, type of road vehicle, enterprise code in statistical profile business register, year of production, address and total weight (this information in the register made up about 40 per cent).

All records are used in stratification except total weight.

#### Procedure for reminders:

*First reminder:* 2 weeks after the surveyed week by post *Second reminder:* 4 weeks after the surveyed week by post *Non-response report:* 7 weeks after the surveyed week

# SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle

#### Types of units excluded:

Special purpose road vehicle.

Goods of road transport vehicles with weight are less than 6 tonnes in the case of single motor vehicle.

#### Time unit: 1 week

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The sample for one quarter is obtained using a simple random sample in each stratum. All road good transport vehicles are distributed in 19 strata. Road goods transport vehicles are distributed in the following way:

1) Vehicles are classified by owners in each stratum (vehicles belonging to an enterprise or private)

2) By types of vehicles in each stratum (lorries or road tractors)

3) Vehicles – lorries are classified by age of production in each stratum, namely under 10 years and more than 10 years. Road tractors are not classified by year of production

4) Road good vehicles, which have licenses for international journeys

5) Road good vehicles, which have licenses for carriage of dangerous goods

## Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Only the main commodity is coded.

*Multi stop:* Only the main commodity is coded.

Collection/delivery: None

Other variables: None

Main figures	Year 2003
Total number of relevant goods vehicles in the country	58 718
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	15 016
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	3 062
Number of cases classified as non-respondents	3 224
Number of cases where sample register information was wrong and response could not be used	3 109
Number of questionnaires used in analysis	5 621

# **LUXEMBOURG**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: National vehicle register

Name of organisation who maintains the register: Ministry of Transport

Frequency of update: 3 times a year

Frequency of access to draw the samples: Each week selected for sampling

# Arrangements for accessing the register:

Requests from Statec are sent to the Ministry of Transport, who treats them. The results are then sent back to Statec.

# Information obtained from the register:

Age of the vehicle, load capacity, maximum authorised weight, total number of axles including those of trailers and semi-trailers, use of the vehicle (own account or for hire or reward), name and address of the owner, registration number, power of engine and NACE code under which the owner is registered.

# **Procedure for reminders:**

A reminder is sent to the owner 3 weeks after the deadline when the questionnaire was due to be returned. After the new deadline of the reminder, every 2 weeks a second and third reminder is sent out. The 4<sup>th</sup> reminder is sent out as a registered mail. If there is no answer, the help of the tribunal is requested, according to a legal procedure.

# SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle

# Types of units excluded:

Lorries and vans with load capacity below 3 tonnes, agricultural vehicles, military vehicles and special-purpose vehicles (not equipped for goods transport).

#### Time unit: 1 week

# Time unit of quarter 1 of 2004 included in the survey: 7 weeks

# Stratification:

There is no stratification: all vehicles registered on 1 January 2004 are distributed over 26 weeks in the beginning of the year. Vehicles registered during the year are distributed as follows:

- Week 27: vehicles registered during the first semester of the year

- Week 28: vehicles registered during the second semester of the year

#### Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Not available.

Multi stop: Not available.

Collection/delivery: Not available.

Other variables: Not available.

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	9 393	9 480
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	7 901	8 036
Number of cases classified as non-respondents	552	283
Number of cases where sample register information was wrong and response could not be used, or where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	1 388	1 324
Number of questionnaires used in analysis	5 961	6 429

# HUNGARY

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: National stock of Goods carriage motor vehicles

#### Name of organisation who maintains the register:

Central Data-Processing, Registration and Electoral Office of the Ministry of Interior

#### Frequency of update: Twice a year

#### Frequency of access to draw the samples: Once a year

#### Arrangements for accessing the register:

The agreement between the Hungarian Statistical Office and Central Data-Processing, Registration and Electoral Office of the Ministry of Interior, based on the Governmentdecree 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 county.

## 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. If they still don't return the questionnaires, the HSO may take the necessary steps to impose a penalty.

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Lorries with less than 3.5 tonnes capacity.

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

Time unit: 1 week; 2 weeks for vehicles involved in international freight transport

#### Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The stratification is based on the national stock of Goods carriage vehicles. The sample is stratified according to:

1<sup>st</sup> criteria: vehicle operator's legal status (corporation or individual)

 $2^{nd}$  criteria: load capacity 5 categories: load capacity between 1 – 3.5 tonnes, 3.5 – 5 tonnes, 5 – 10 tonnes, above 10 tonnes, road tractors as a separate stratum)

After this stratification we insure the required representation of the sample. As a 3<sup>rd</sup> criteria, at data grossing-up, the 20 counties are taken into consideration

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* In the cases when more than one goods commodity is carried, only one, the most relevant is taken into consideration.

*Multi stop:* A type 2 (multi-stop with less than 5 stops) journey is considered as many separate journeys as many stops are (a journey with stops at A-B-C-D is registered as A-B, B-C, C-D journeys).

Collection/delivery: None

Other variables: None

Main figures	Year 2003
Total number of relevant goods vehicles in the country	316 208
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	61 526
Number of cases where no vehicle activity was recorded during the sampled period but the vehicle could be considered as part of the active stock	12 401
Number of cases classified as non-respondents	6 605
Number of cases where sample register information was wrong and response could not be used	20 203
Number of questionnaires used in analysis	22 317

# MALTA

## 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 will 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.

Used in stratification: Gross vehicle weight and type of body.

#### 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 2080 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 1300, 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).

# Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: None

Multi stop: None

Collection/delivery: None

Other variables: None

Main figures: Not available

# **NETHERLANDS (Own account)**

# SAMPLING REGISTER USED FOR THE SURVEY

## Name of register:

- a. License register for own account enterprises
- b. Motor Vehicle Register of those enterprises

# Name of organisation who maintains the register:

SIEV (Stichting Inschrijving Eigen Vervoer)

# Frequency of update: Yearly

SIEV

# Frequency of access to draw the samples:

The sample frame is drawn yearly (in December); it is updated quarterly for new and disappeared enterprises.

# Arrangements for accessing the register:

Statistics Netherlands (CBS) and SIEV agreed the following:

- processes the mutations in the enterprises
  organises the mailings and receipts of the questionnaires (paper and electronic)
  - handles the response in a sample register

#### CBS - makes the sample-designs

- draws the sample
- receives twice per month the response-results
- handles the data-entry for paper forms
- checks the electronic data

## Information obtained from the register:

The enterprise register of the SIEV contains:

- Code-number of the enterprise (license holder)
- Name of the enterprises
- Address of the enterprise
- Number of the chamber of commerce of the enterprise

The motor vehicles register of the SIEV contains:

- Code number of the enterprise (license holder)
- Registration number of the vehicle

The registration number of the vehicle is linked to information from the **National Vehicle Register** of RDW Centrum voor Voertuigtechniek en Informatie to get information on:

- Loading capacity of the vehicle / maximum permissible weight of road tractor
- Type of motor vehicles: lorry or van /road tractor
- Empty weight of the vehicle

The number of the chamber of commerce of the enterprise is linked to the CBS Register of Enterprises to add the NACE classification.

Register data used in the stratification of the sample:

- NACE classification
- Loading capacity of the vehicles

# Procedure for reminders:

There is a standard routine for reminders. The procedure is carried out by SIEV.

## Unit non response (non response of a complete firm)

a. 18 Days after the reported time period, the non respondents receive a first written reminder.

b. 14 Days after the day that the first written reminders are mailed, the non respondents receive a second written reminder.

c. 14 Days after the mailing of the second written reminders non respondents will be called by SIEV/CBS or will be visited by a field worker of CBS.

In the worst case (minority), after contact by phone or visit by the field worker, the non-respondent can be reported to the Inspectie Verkeer en Waterstaat.

This inspectorate of the government is allowed to take the law on the non-correspondent.

# SAMPLING METHODOLOGY

Statistical unit: Transport firm

# Types of units excluded:

In the second step vehicles with a loading capacity below 2 tonnes are excluded.

# Time unit: 1 week

# Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The survey consists of a two-step sampling frame.

#### First step:

The population is stratified in space and time. First all enterprises are stratified according to there NACE heading.

Per strata the population is divided into 52 groups of enterprises. Every group within the stratum is linked to a week in the statistical year.

#### Second step:

For every enterprise the vehicles are divided into 4 classes for the second step.

For these classes a sample is drawn according to a pre-specified sampling fraction per class.

The loading capacity classes and the fractions are specified as follows:

a. Vans, fraction 0.01

b. Special types of commercial vehicles not used for freight transport, fraction 0.10

c. Commercial vehicles with loading capacity greater than or equal to 2 tonnes and smaller than 15 tonnes, fraction 0.20

d. Commercial vehicles with loading capacity greater than or equal to 15 tonnes, fraction 0.5

In case the (number of vehicles per class x fraction) is smaller or equal to 1, always 1 vehicle is chosen at random.

Codes used to stratify:

Step 1

- NACE category

- Week for which information is requested

Step 2

- Type or loading capacity of the vehicle

## Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* Sometimes a simplification is made by the enterprise. In case the weight of a national shipment is below 1 tonne, the enterprises can combine several shipments. For international transport this can be done in case a shipment is smaller than 5 tonnes.

*Multi stop:* The same procedure as for single stop journeys.

*Collection/delivery:* The place of loading is the centre in which most loadings have taken place (highest density). The place of unloading is the centre in which most unloadings have taken place (highest density). In case of an international journey with stops in more different countries, for every country at least one shipment should be given.

Other variables: None

Main figures: Not available

# **NETHERLANDS (Hire and reward)**

# SAMPLING REGISTER USED FOR THE SURVEY

# Name of register:

- a. License register of hire and reward enterprises
- b. Motor vehicle Register for those enterprises

# Name of organisation who maintains the register:

NIWO (Stichting Nationale en Internationale Wegvervoerorganisatie);

# Frequency of update: Yearly

# Frequency of access to draw the samples:

Yearly (December), sample frame is drawn; the sampling frame is updated quarterly for new and disappeared enterprises.

# Arrangements for accessing the register:

Statistics Netherlands (CBS) and NIWO agreed the following:

- NIWO incorporates the mutations in the hauliers register
  - draws the samples
  - organises the mailings and receipts of the questionnaires (paper and electronic)
  - handles the response in a sample register

# CBS - makes the sampling-design

- receives twice per month the response-results
- handles the data-entry for paper forms
- checks the electronic data

#### Information obtained from the register:

The enterprise register of the NIWO contains:

- Code-number of the enterprise (license holder)
- Name enterprises
- Address enterprise
- Number of the chamber of commerce of the enterprise

#### The motor vehicles register of the NIWO contains:

- Code number of the enterprise (license holder)
- Registration number of the vehicle

The registration number of the vehicle is linked to information from the National Vehicle Register of RDW Centrum voor Voertuigtechniek en Informatie to get information on:

- Loading capacity of the vehicle/ maximum permissible weight of road tractor
- Type of motor vehicles: lorry or van /road tractor
- Empty weight of the vehicle

#### Register data used in the stratification of the sample:

- Code number of enterprise for Hire and Reward
- Loading capacity for every vehicle for all enterprises

# Procedure for reminders:

There is a standard routine for reminders. The procedure is carried out by NIWO.

## Unit non response (non response of a complete firm)

a. 18 Days after the reported time period, the non respondents receive a first written reminder

b. 14 Days after the day that the first written reminders are mailed, the non respondents receive a second written reminder

c. 14 Days after the mailing of the second written reminder, non-respondents will be called by NIWO or will be visited by a field worker of NIWO

In the worst case (minority), after contact by phone or visit by the field worker, the non-respondent can be reported to the Inspectie Verkeer en Waterstaat.

This inspectorate of the government is allowed to take the law on the non-correspondent.

# SAMPLING METHODOLOGY

Statistical unit: Transport firm

#### Types of units excluded:

In the first step of the sample no unit is left out. In the second step no response is requested for vehicles, which have a loading capacity below 1 tonne.

# Time unit: 1 week

#### Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The total population of enterprises is stratified in space and time. First for every enterprise the total loading capacity is calculated. The enterprises are divided in 6 groups according to their total loading capacity. The strata for the total loading capacity are the following:

- a. 1 to 40 tonnes
- b. 40 to 50 tonnes
- c. 50 to 150 tonnes
- d. 150 to 300 tonnes
- e. 300 to 1000 tonnes
- f. 1000 tonnes and more

Per stratum the population is divided into 52 groups of enterprises. Every group within the stratum is linked to a week in the statistical year. Every enterprise has to report transport information for all of their vehicles during the appointed week per year.

Codes used to stratify:

- Total loading capacity of the enterprise
- Week for which information is requested

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* Sometimes a simplification is made by the enterprise. In case the weight of a national shipment is below 1 tonne, the enterprises can combine several shipments. For international transport this can be done in case a shipment is smaller than 5 tonnes.

*Multi stop:* The same procedure as for single stop journeys.

*Collection/delivery:* The place of loading is the centre in which most loadings have taken place (highest density). The place of unloading is the centre in which most unloadings have taken place (highest density). In case of an international journey with stops in more different countries, for every country at least one shipment should be given.

Other variables: None

Main figures: Not available

# NETHERLANDS (Survey on road transport by other company vehicles without special license)

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: National Vehicle Register

# Name of organisation who maintains the register:

RDW Cetrum voor Voertuigtechniek en Informatie

# Frequency of update: Quarterly

Frequency of access to draw the samples: Yearly (December), sample frame is drawn

#### Arrangements for accessing the register:

Statistics Netherlands (CBS) and RDW agreed the following:

- RDW processes the mutations in the vehicle register
- CBS makes the sample-designs
  - draws the sample

# Information obtained from the register:

According to the registration number of the vehicle various information about the vehicle is received. For example:

- Loading capacity of the vehicle/ maximum permissible weight of road tractor
- Type of motor vehicles: lorry or van /road tractor
- Empty weight of the vehicle

# Register data used in the stratification of the sample:

- Loading capacity of the vehicles

# Procedure for reminders:

There is a standard routine for reminders. The procedure is carried out by CBS.

#### Unit non response (non response of a complete firm)

a. 18 Days after the reported time period, the non-respondents receive a first written reminder

b. 14 Days after the day that the first written reminders are mailed, the non-respondents receive a second written reminder

c. 14 Days after the mailing of the second written reminder non-respondents will be called by CBS or will be visited by a field worker of CBS

# SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

# Types of units excluded:

Vehicles not used for goods transport on public roads such as for example:

- Busses
- Caravans

Vehicles with a loading capacity below 2 tonnes.

# Time unit: 1 week

# Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The population is stratified in 4 separate classes of vehicles.

For this classes a sample is drawn according to a pre-specified sampling fraction per class.

The loading capacity classes and the fractions are specified as follows:

a. Vans fraction 0.01

b. Special types of commercial vehicles not used for freight transport, fraction 0.10 c. Commercial vehicles with loading capacity greater than or equal to 2 tonnes and smaller than 15 tonnes, fraction 0.20

d. Commercial vehicles with loading capacity greater than or equal to 15 tonnes, fraction 0.5

Per stratum the population is divided into 52 groups of enterprises. Every group within the stratum is linked to a week in the statistical year.

Codes used to stratify:

- Loading capacity of the vehicle

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* Sometimes a simplification is made by the enterprise. In case the weight of a national shipment is below 1 tonne, the enterprises can combine several shipments. For international transport this can be done in case a shipment is smaller than 5 tonnes.

*Multi stop:* The same procedure as for single stop journeys.

*Collection/delivery:* The place of loading is the centre in which most loadings have taken place (highest density). The place of unloading is the centre in which most unloadings have taken place (highest density). In case of an international journey with stops in more different countries, for every country at least one shipment should be given.

Other variables: None

Main figures: Not available

# **AUSTRIA**

# SAMPLING REGISTER USED FOR THE SURVEY

## Name of register:

- 1. Vehicle-Register (VR)
- 2. Enterprise-Register (ER)

# Name of organisation who maintains the register: Bundesanstalt Statistik Österreich

# Frequency of update:

Vehicle Register: Monthly Enterprise Register: Continuously

# Frequency of access to draw the samples: Once a year

#### Arrangements for accessing the register:

Continuous supplementing of VR records with ER information (Enterprise number, Bundesland/Federal country).

#### Information obtained from the register:

*Vehicle Register:* Bundesland, registration office, vehicle registration number, vehicle identification number, registration date, type of vehicle, empty weight, load capacity, maximum permissible weight and link to ER.

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

Stratum: Load capacity class of enterprise by Bundesland.

#### **Procedure for reminders:**

*First reminder:* 4 weeks after the surveyed week *Second reminder:* 6 weeks after the surveyed week *Penalty procedure:* starts 4 weeks after the second reminder

#### SAMPLING METHODOLOGY

Statistical unit: Local unit.

#### Types of units excluded:

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

Excluded are vehicles with a load capacity less than 2 tonnes, agricultural vehicles, vehicles of regional administrative bodies and foreign organisations and military vehicles.

Time unit: 1 week

Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The Sampling procedure takes place once a year; the classification is based on the generation of total load capacity per enterprise; the basis for stratification is the load capacity class of enterprise by Bundesland.

Classes (from year 2003 on equal for every Bundesland):

- Class 1: <10 tons load capacity
- Class 2: 10 to <100 tons load capacity
- Class 3: >=100 tons load capacity

Time units:

- Class 1: 1 week in 4 years
- Class 2: 1 week in a year
- Class 3: 1 week in a quarter

Structure of variable 'Stratum':

- Digit 1: Bundesland (1 9)
- Digit 2: Load capacity class (1 3)
- Digits 3+4: Time slot (1 13; 4/52 of a year)

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* None. 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.

Other variables: None

Main figures	Year 2002	Year 2003
Total number of statistical units in the country	19 805	19 562
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners	17 643	18 202
Number of cases where no vehicle activity was recorded by the enterprise during the sampled period	3 655	3 856
Number of cases classified as non-respondents	812	784
Number of cases where vehicle activity was recorded by the enterprise during the sampled period	13 176	13 562
Number of vehicle questionnaires used in analysis	126 023	17 418
Total number of relevant goods vehicles in the country	75 758	75 012

# POLAND

# 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: Once a quarter

#### Frequency of access to draw the samples: Once a quarter

#### Arrangements for accessing the register:

Data are received from about 400 regional road vehicle registers (according to NUTS 4 - level).

The database on vehicles is updated by the scrapped and new registered vehicles, as well as by the modifications reported by the vehicle owners.

#### Information obtained from the register:

*Information to conduct the survey:* registration number, name and address of the vehicle owner, type of vehicle, year of manufacture, load capacity, maximum permissible weight, type of body and administrative region (NUTS4-codes).

*Information for the stratification:* type of vehicle, year of manufacture, load capacity and administrative region (NUTS2-codes).

#### **Procedure for reminders:**

*First reminder:* 2 weeks after the survey week *Second reminder:* 4 weeks after the survey week

# 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 tones of maximum permissible weight.

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

## Time unit: 1 week

Time units of quarter 1 of 2004 included in the survey: All (13 weeks).

# Stratification:

The sample is stratified according to:

- Type of vehicle (2 classes): lorry; road tractor
- Age (2 classes): < = 10 years; > 10 years
- Load capacity (2 classes): <6 tones; => 6 tones (concerning the lorries only)
- 16 voivodships (NUTS2-codes)

The sample is divided into 6 large strata:

- 1. Lorries with under 6 tones of load capacity and 10 years and less than 10 years
- 2. Lorries with under 6 tones of load capacity and over 10 years

3. Lorries with 6 and more than 6 tones of load capacity and 10 years and less than 10 years

- 4. Lorries with 6 and more than 6 tones of load capacity and over 10 years
- 5. Road tractor with 10 years and less than 10 years
- 6. Road tractor with over 10 years

Each the strata are allocated into 16 voivodships (NUTS2- codes). The sample was allocated to the strata in proportion to the population of the strata and distributed equally among the 13 weeks of the quarter.

The sampling fraction is greater for younger and heavier vehicles, which means that the sample of younger and heavier lorries is twice as big as the sample of older and lighter lorries and the sample of younger road tractors is twice and half as big as the sample of older road tractors.

# Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* In column "type of carried goods" vehicle owners give only one main type of goods, which is dominant considering the weight of goods.

*Multi stop:* For each place of loading can be loaded only one main type of goods which is dominant considering the weight of the goods. In the recording of type 2 journeys more than one type of goods can be carried. Goods are unloaded according to the method FIFO (first type of goods which is loaded is first unloaded).

*Collection/delivery:* Each single journey with more than 5 stops is classified as collection/delivery journey. The weight of goods and tonnes-kilometers are calculated according to the formulae:

Weight of goods (A2.2) <= maximum load capacity

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

*Other variables:* We use the simplified coding of international transport (the 2-alpha part of the NUTS-codes for the EU-countries and the 2-alpha ISO -3166 codes for other countries). The simplifying assumptions are made for the configuration and the type of transport. We collect data about the configuration of load capacity/maximum permissible weight and the type of transport, which are most frequently used during the survey period.

Main figures: Not available

# PORTUGAL

# SAMPLING REGISTER USED FOR THE SURVEY

# Name of register:

# Name of organisation who maintains the register:

National Organisations:

- D.G.R.N. (Direcção Geral de Registo e Notariado)
- D.G.T.T. (Direcção Geral de Transportes Terrestres)
- D.G.V. (Direcção Geral de Viação)

# Frequency of update: Continuously

Frequency of access to draw the samples: Once a year

Arrangements for accessing the register:

# Information obtained from the register:

19 variables for hire/reward and 8 variables for own account. All the information and stratification of the vehicles is obtained from the register.

# Procedure for reminders:

A first written reminder is sent on day 15 of month m+1 (for the surveys of month m); a second written reminder is sent two weeks after the first reminder, if the questionnaire is still not received.

# SAMPLING METHODOLOGY

# Statistical unit: Tractive vehicle

## Types of units excluded:

All vehicles with gross weight equal or inferior to 3500 kg, vehicles not used for the transport of goods, such as agricultural and military vehicles, fire engines and vehicles belonging to the public administration.

# Time unit: 1 week

# Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

The sample is stratified according to the following variables:

- First two digits: - Third digit:	Region (Norte, Centro, Lisboa, Alentejo and Algarve) Type of vehicle (Lorry or Road Tractor)			
- Forth digit:	Gross weight class (Lorry):	3501 – 10000 kg		
-		10001 – 16000 kg		
		16001 – 19000 kg		
		19001 – 22000 kg		
		22001 – 26000 kg		
		over 26000		
	Gross weight class (Road Ti	ractor): 3501 – 7000 kg		
		over 7000		
- Fifth digit:	Type of transport (Own Account, Hire or Reward)			

# Simplifying assumptions used in recording journey data sent to Eurostat:

### Single stop: None

*Multi stop:* The origin and the destination, such as the distance corresponds to the longest journey, the weight is the sum of each basic transport operation. Calculation of tkm (A2.6): For each single transport operation we multiply the weight by the kilometer and divide by 10, then we sum all the single transport operations of the same journey. Example:

OriginDesti	nation		NSTR	Weight (100kg)	Distance (km)
A		В	161	10	50
А		С	161	12	100
А		D	161	16	150
Recording A	42:				
A2.3 A2.4	A2.2	A2.5	A2.6		
A D	38	150	10*50/10 + 1	2*100/10 + 16*150/10	

*Collection/delivery:* Yes, we consider type 3 journeys, when the transport operators tell us that they made many stops and they can't describe where exactly they stopped and how many kgs did they unload or load in each stage. They only describe the main good carried and where they started and finished the journey. Example:

OriginDestination	NST	R	Weight (100 kg)	Distance (km)
A	В	141	200	350
А	С	147	50	100
Recording A2:				
A2.3 A2.	4	A2.2	A2.5	A2.6
A B		250	350	200*350/20 + 50*100/20

Other variables: None

Main figures *	Year 2001	Year 2002
Total number of relevant goods vehicles in the country	37 698	39 099
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 290	8 805
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	1 662	1 803
Number of cases classified as non-respondents	822	608
Number of cases where sample register information was wrong and response could not be used	2 880	3 476
Number of questionnaires used in analysis	2 926	2 918

\* Hire or Reward transport only.

# **SLOVENIA**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Register of 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:

The Ministry of Interior transmits part of the register with all motor goods vehicles once a quarter (31 December, 30 April, 31 July and 30 October) in compliance with the Annual Programme of Statistical Surveys. Before each quarterly sampling, the Register of Motor Vehicles is matched with the Business Register of Slovenia.

#### Information obtained from the register:

*Register of Motor Vehicles:* Identifier of the owner, name of the owner, address of the owner, type of the owner, license number, type of vehicle, body type, unladen weight, maximum permissible laden weight, made in year, date of registration, number of axles and type of fuel used.

Business Register: Main activity of the operator.

Used in stratification: Type of the owner, unladen weight and maximum permissible laden weight.

#### **Procedure for reminders:**

*First reminder* - 10 days after the observation *Second reminder* - 23 days after the observation *Third reminder* - telephone call 30 day after the observation

# SAMPLING METHODOLOGY

## Statistical unit: Tractive vehicle

# Types of units excluded:

Agricultural, military and public service vehicles. Vehicles with load capacity below 1000 kg (2001–2003); with load capacity below 1500 kg (since 2004).

# Time unit: 1 week

#### Time units of quarter 1 of 2004 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: 1.50 - 4.99; 5.00 - 9.99; 10.00 and more tonnes, road tractors). The allocation regarding the type of ownership was equal with corrections for different levels of non-response between legal entities and natural persons. The allocation regarding the loading capacity of vehicles was equal (in each group we selected the same number of vehicles).

#### Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Only the main type of goods carried is recorded.

*Multi stop:* Only the main type of goods carried is recorded.

Collection/delivery: Only the main type of goods carried is recorded.

*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.

Main figures: Not available

# SLOVAKIA

# SAMPLING REGISTER USED FOR THE SURVEY

#### Name of register:

- 1. Vehicle Register
- 2. Operating register

#### Name of organisation who maintains the register:

- 1. Ministry of Interior
- 2. Statistical Office of the Slovak Republic

#### Frequency of update: Permanently

#### Frequency of access to draw the samples: Yearly

#### Arrangements for accessing the register:

*Vehicle register:* The information is taken over from administrative sources, Ministry of Interior, annually. 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.

*Operating 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 taken into the sampling. The region is not a criterion for the strata.

#### Procedure for reminders:

Respondent has to send the filled questionnaire in written or electronic form to the SO SR by 8 days after the end of the surveyed week.

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

Second reminder: Sent 2 weeks after the 1<sup>st</sup> reminder.

The system of sending reminders is included in the programme, which automatically generates the reminders according to the surveyed week.

# SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

Types of units excluded: None

Time unit: 1 week

# Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

# Stratification:

Loading capacity

111	Enterprises/Business register	lorries	of less than 1.499 tonnes
211	Sole entrepreneurs/Tradesman register	lorries	of less than 1.499 tonnes
112	Enterprises/Business register	lorries	of 1.5 - 4.999 tonnes
212	Sole entrepreneurs/Tradesman register	lorries	of 1.5 - 4.999 tonnes
113	Enterprises/Business register	lorries	of 5 - 9.999 tonnes
213	Sole entrepreneurs/Tradesman register	lorries	of 5 - 9.999 tonnes
114	Enterprises/Business register	lorries	of 10 tones and more
214	Sole entrepreneurs/Tradesman register	lorries	of 10 tones and more
125	Enterprises/Business register	road tractor	
225	Sole entrepreneurs/Tradesman register	road tractor	

# Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: None. Each type of transported goods is surveyed separately.

Multi stop: None

Collection/delivery: None.

Other variables: None

Main figures	Year 2003
Total number of relevant goods vehicles in the country	108 634
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	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	2 338
Number of cases classified as non-respondents	1 609
Number of cases where sample register information was wrong and response could not be used	1 947
Number of questionnaires used in analysis	4 506

# **FINLAND (National)**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Vehicle Register

Name of organisation who maintains the register: Vehicle Administration Centre

Frequency of update: Constantly

#### Frequency of access to draw the samples: Once a quarter

#### Arrangements for accessing the register:

Statistics Finland uses a third party to make the computer runs and to fill in the information on the forms.

#### Information obtained from the register:

All together 49 variables are obtained from the register.

The following variables are used for stratification:

- 1: Type of transport (own account, hire or reward)
- 2: Type of vehicle (lorry, tractor + semi-trailer, tractor + trailer)

# Procedure for reminders:

If a vehicle owner does not respond in two weeks, a reminder is sent with a new survey period of two days. If the vehicle owner still does not respond, a second reminder is sent with a new survey period of 2 days. The days of the week are the same in the reminder as they were in the first inquiry.

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Lorries, whose gross vehicle weight is under 3.5 tonnes. Furthermore, military vehicles and vehicles that are not especially designed to transport goods such as museum vehicles, fireengines and special vehicles.

#### Time unit: 2 days

## Time unit of quarter 1 of 2004 included in the survey:

6 weeks.

Each of the 2 100 vehicles has a survey period of 2 consecutive days. Altogether 6 weeks are covered per quarter. Each quarter: 2 weeks survey period followed by 2-3 weeks not included. This is repeated 3 times per quarter.

The periods that are not included are estimated to be equal to the time periods included. The time factor to one vehicle is 45.625.

Article 1 of Commission Regulation No 642/2004 will be applied from 1. January 2006.

# 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 vehicle type (3) and type of operation (2). All together there are 6 strata. A different sampling rate is used for each of the six strata.

Strata:

- 1) Lorry without trailer, own account
- 2) Tractor with a semi-trailer coupled, own account
- 3) Lorry with a trailer coupled, own account
- 4) Lorry without trailer, hire or reward
- 5) Tractor with a semi-trailer coupled, hire or reward
- 6) Lorry with a trailer coupled, hire or reward

## Simplifying assumptions used in recording journey data sent to Eurostat:

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

*Multi stop:* 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.

Other variables: None

Main figures	Year 2002	Year 2003
Total number of relevant goods vehicles in the country	64 380	67 637
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	8 400	8 400
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	2 336	2 417
Number of cases classified as non-respondents	2 821	2 854
Number of cases where sample register information was wrong and response could not be used	334	0
Number of questionnaires used in analysis	2 909	5 186

# **FINLAND (International)**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Register of licenses for international traffic (LILU)

Name of organisation who maintains the register: County government of Oulu

Frequency of update: Constantly

#### Frequency of access to draw the samples: Twice a year

#### Arrangements for accessing the register:

The County government of Oulu sends the data to Statistics Finland by CD-Rom twice a year.

#### Information obtained from the register:

22 variables are obtained from the LILU register. These variables include contact information and information on number of licenses the firms have.

#### Procedure for reminders:

If a firm does not respond in three – four weeks, a reminder is sent with a new survey period to be reported.

#### SAMPLING METHODOLOGY

Statistical unit: Transport firm

#### Types of units excluded:

None, but the firms must have a license for international traffic

# Time unit: 1 or 2 weeks

#### Time unit of quarter 1 of 2004 included in the survey:

6 weeks. 800 firms are asked to report for a time period of one or two weeks. All together a time period of 6 weeks is included each quarter. The time periods that are not included are estimated to be equal to the periods included. The time factor to firm is 6.518 or 13.036.

#### Stratification:

The sampling is based on the number of licenses for international traffic. The firms are divided into four strata:

Strata 1, firms with 1-2 licenses (11 PERT) Strata 2, firms with 3-8 licenses (12 PERT) Strata 3, firms with 9-19 licenses (13 PERT) Strata 4, firms over 19 licenses (14 PERT)

The number of journeys will be grossed up to equal the number of border crossings by Finnish registered heavy goods vehicles in a quarter. This information comes from the customs.

# Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: None Multi stop: None Collection/delivery: None Other variables: None

Main figures	Year 2002	Year 2003
Number of statistical units (enterprises) in the country	3 944	4 533
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners (some enterprises are sampled more than once in a year)	2 800	3 200
Number of cases where no unit activity was recorded during the sampled period	1 420	1 711
Number of statistical units classified as non-respondents	1 084	1 223
Number of cases where sample register information was wrong and response could not be used	3	7
Number of questionnaires used in analysis	589	1 977

# **SWEDEN**

# SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Vehicle Register, the Commercial Traffic Register and kilometer data

# Name of organisation who maintains the register:

National Road Administration (NRA) and The Swedish Motor Vehicle Inspection Company

# Frequency of update: Daily

#### Frequency of access to draw the samples: Once a quarter

#### Arrangements for accessing the register:

The data are forwarded from the NRA and The Swedish Motor Vehicle Inspection Company to Statistics Sweden at the specified dates of deliveries. The dates are for sampling according to:

- First quarter 2004: 15 November 2003
- Second quarter 2004: 31 January 2004
- Third quarter 2004: 30 April 2004
- Fourth quarter 2004: 15 August 2004

The corresponding dates have been used 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 measurement week.

#### Information obtained from the register:

The information obtained from the Vehicle Register is most of the information registered on a specific vehicle. As an example, it can be mentioned that the identification as registration number, organisation number of the enterprise/owner of the vehicle, name and address, body code, year of first registration, vehicle in use/not in use. 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. Together with

- Total weight and the service weight of the vehicle. The difference between those two concepts - maximum load capacity-, is used in the stratification.

The information from the Commercial Traffic Register is mainly number of permits for international traffic, geographical location and name, address of the enterprise that hold the permits.

The driving distances are collected from the Swedish Motor Vehicle Inspection Company and are used in the stratification.

# Procedure for reminders:

A standard routine for reminders is used. When one week and 2 days have elapsed after the due date, reminder 1 is sent out by post. If no answer is received, reminder 2 will be sent after another week, also by post.

Telephone reminders were carried out regarding first, second and fourth quarter of 2003 as a third reminder to those still belonging to the non-response part of the survey. This procedure is one way of trying to reduce the rather high non-response (rate). Telephone reminders will also be carried out regarding the first and second quarter of 2004.

# SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Some body type codes for which transport of goods is not possible, such as ambulances, hearses, breakdown lorries. Military vehicles are not included in the 'Vehicle register'. Lorries older than 30 years are excluded.

## Time unit: 1 week

#### Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

Stratified sampling has been 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).

<u>National</u>: The sampling frame was created with information on each lorry regarding: driving distance according to the yearly inspections at the Swedish Motor Vehicle Inspection Company, county of registration, maximum load capacity. Two kinds of body codes related to Round timber transport resp. petroleum transport were created as strata with no information of counties and maximum load capacity accounted for. The first step of stratification was to divide the frame into four groups of body codes, namely:

- Round timber-lorries (code 44);
- Petroleum-transporting lorries (code 66) with data about driving distance;
- The rest with data about driving distance
- Lorries without data about driving distance.

For group 1 and 2 the second step was to divide the lorries into four groups according to their driving distance. Eight strata were created.

For group 3 above the division continued by the 8 NUTS areas in Sweden and a special group for Gotland. Every area class was divided into three groups of driving distance except Gotland that was divided into two groups. For the smallest driving group class (except Gotland) a further division was made according to maximum load. This totaled 43 strata. For the lorries without data about driving distance, group 4, no further grouping was done.

<u>International</u>: The sampling frame was created with information on each lorry where the owner has a permit for international traffic regarding number of permits of the owner. The owners with a high number of permits, 16 or more, then had to answer a questionnaire about future use of their lorries. The lorries that mostly were going to be used for international traffic were separated into a strata of their own. The others were divided by driving distance and region (groups of counties). This totaled 14 strata.

#### The entire survey totaled 57 strata.

The strata concerning national traffic are made up of five digits; the first two separates round timber lorries (code 44), petroleum-transporting lorries (code 66), lorries used for national transporting (code 88), the third digit shows region (code 00-09), the fifth digit shows classes of driving distances (code 0,1,2,3).

The strata concerning international traffic are also made up of five digits; the first two are indicating international strata (code 99), the third digit indicate region (code 01-06), and the fifth digit shows classes of driving distances (code 0,1,2,3).

Two special strata numbers are used for lorries without information about driving distances, national traffic code 88000 and international traffic 99000. The lorries that are used most in international traffic (80 % or more) according to a special survey are coded as 99999.

# Simplifying assumptions used in recording 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:* The respondent records each basic transport operation in the questionnaire. These records are then recalculated to journey level by the staff at Statistics Sweden. The method used can be described as follows: The kilometers driven for the total journey is calculated, the main type of goods (in respect of kilos) is decided and then a formula (see below) recalculate the average weight on the journey level. The exact figures in kilos are used in the calculations.

A = Tonne-kilometres for each basic transport operation is calculated and summed up

B = Kilometers driven on the journey

C = Average tonnes for the 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 kilometers 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. In the cases where the vehicle only has c/d-rounds and empty journeys during the survey week it is possible to connect the empty journeys to the c/d-rounds. If the vehicle has a mix between c/d-rounds and other kinds of journeys, not empty journeys, the connection is not possible at the moment. The information from the Swedish survey in the A2 file and the A3 file is the same regarding type 3 journeys.

*Other variables:* Regarding trailers we allow the respondent to record the most common trailer or combination of trailers used during the week for measurement. This is a change in the survey from the survey year 2002. 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. These assumptions are according to Annex A of the Regulation.

Main figures	Year 2002*	Year 2003
Total number of relevant goods vehicles in the country	56 627	56 097
Number of vehicles selected for initial sample and questionnaires dispatched to vehicle owners	13 787	12 256
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	2 388	1 965
Number of cases classified as non-respondents	3 782	3 079
Number of cases where sample register information was wrong and response could not be used	819	811
Number of questionnaires used in analysis	6 798	6 041

\* An additional sample of about 600 vehicles has been added regarding the second, third and fourth quarter of 2002.

# **UNITED KINGDOM (National)**

# SAMPLING REGISTER USED FOR THE SURVEY

# Name of register:

- 1. Driver Vehicle Licensing Agency for GB-registered vehicles
- 2. Driver Vehicle Licensing (NI) for Northern Ireland registered vehicles

# Name of organisation who maintains the register: DVLA/DVL(NI)

# Frequency of update: Ongoing

#### Frequency of access to draw the samples: Quarterly

# Arrangements for accessing the register:

Agreement with DVLA/DVLNI for extraction of weekly sample. ONS provides a specification to DVLA/DVLNI of the proportion of vehicles required in each stratum and a target sample for each week.

# Information obtained from the register:

Gross plated weight, NUTS1 region of registration, propulsion code, wheel plan code, tax class, body type code and year of first registration; name and contact details of the owner.

#### Procedure for reminders:

A reminder system is used to chase non-respondents:

*First reminder:* a letter is send 2 days after the due back date, 10 days after the end of the survey period

Second reminder. a letter is sent recorded delivery 2 weeks after the first reminder *Third reminder:* a telephone call is made 2 weeks after the second reminder

# SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

# Types of units excluded:

Vehicles weighing less than 3.5 tonnes gross 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 2004 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 t, 7.5 to 15t, 15 to 18t, 18 to 26t, over 26t
  - Articulated: 3.5 to 26t, 26 to 34t, 34 to 38t, 38 to 40t, over 40t
- 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

#### Simplifying assumptions used in recording journey data sent to Eurostat:

*Single stop:* If a vehicle is carrying more than one type of goods the larger of the two consignments determines the type of goods carried. The weight is the sum of all the consignments for the journey.

*Multi stop:* We collect data for these journeys in the form of single transport operations but can identify that they are legs of a particular 2-4 stop journey. We provide separate A2 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 journeys only the main type of goods code is used. Goods lifted is calculated as either the larger of weight of goods delivered and weight of goods collected if delivering and collecting the same goods or weight of goods delivered + weight of goods collected if delivering and collecting different goods. Tonne-kilometres are calculated as described in 6.5 of the manual.

*Other variables:* This survey collects international activity for Northern Ireland registered vehicle's activity. These journeys are coded on a consignment (goods operation) basis. On the A2 record an adjustment is made so that the total distance does not include double counting. The A3 distance is not adjusted to enable accurate estimates of tonne-kilometres for goods related variables.

Main figures	Year 2001	Year 2002
Total number of vehicles in the country	436 136	441 543
Number of vehicles selected for initial sample	20 864	20 296
Questionnaires dispatched to vehicle owners	20 801	20 296
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	2 876	2 935
Number of cases classified as non-respondents	947	941
Number of cases where sample register information was wrong and response could not be used	1 080	881
Number of questionnaires used in analysis	15 898	15 539

# **UNITED KINGDOM (International)**

#### SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Traffic area network (TAN) database

Name of organisation who maintains the register: TAN

Frequency of update: Ongoing

#### Frequency of access to draw the samples:

TAN provides ONS with an extract of the database every 2 weeks

#### Arrangements for accessing the register:

Traffic Area Offices supply hard copies of new hauliers' details

#### Information obtained from the register:

Details about firms operating heavy goods vehicles and the number of vehicles in their fleet.

#### Procedure for reminders:

A reminder system is used to chase non-respondents: *First reminder:* a letter is sent 3 weeks after the due back date *Second reminder:* a letter is sent recorded delivery 3 weeks after the first reminder *Third reminder:* a telephone call is made 4 weeks after the second reminder

#### SAMPLING METHODOLOGY

#### Statistical unit: Transport firm

#### Types of units excluded:

Vehicles that do not have to hold an operator's license. These include vehicles under the control of the armed forces, emergency services, breakdown recovery vehicle, etc.

#### Time unit:

Dependant on the firm size.

Size 1: 1 day every 4 weeks Size 3: 3 days every 12.5 weeks Size 6: 1 week every 25 weeks Size 12: 2 weeks every 50 weeks Size 24: 4 weeks every 100 weeks

#### Time unit of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The number of international trips made by the firm determines the stratum.

Size 1: 1000+ trips a year Size 3: 401-1000 trips a year Size 6: 101-400 trips a year Size 12: 25-100 trips a year Size 24: less than 25 trips a year

#### Simplifying assumptions used in recording journey data sent to Eurostat:

#### Single stop: None

*Multi stop:* No multi-stop journeys are coded in International road transport.

*Collection/delivery:* No collection / delivery journeys are coded in International road transport.

*Other variables:* For grossing purposes it is assumed the number of UK vehicles using a particular ferry route / channel tunnel is the same for inward and outward movements.

Main figures	Year 2001	Year 2002
Total number of statistical units (enterprises) in the country	3752	3 447
Number of statistical units selected for initial sample and questionnaires dispatched to vehicle owners (some enterprises are sampled more than once in a year)	4 251	4 687
Number of cases where no activity was recorded by the enterprise during the sampled period	1 682	1 954
Number of cases classified as non-respondents	310	378
Number of cases where sample register information was wrong and response could not be used	740	605
Number of questionnaires used in analysis	4 936	5 079

# **BULGARIA**

#### 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 (for the survey purposes)

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:

Vehicle registration number, make, model, type of vehicle, gross vehicle weight, chassis number, region, year of first registration, name and address of the owner.

Used in stratification: vehicle gross weight and region

#### Procedure for reminders:

The reminders are sent by mail and we have a strictly kept schedule:

*First reminder:* 1 week after the due date for the returning of the Questionnaire (or two weeks after the end of the survey week)

Second reminder: 3 weeks after the due date for the returning of the Questionnaire (or four weeks after the end of the survey week)

#### SAMPLING METHODOLOGY

#### Statistical unit: Tractive vehicle

#### Types of units excluded:

Vehicles with gross weight less than 6 tonnes are excluded from the survey; as well as regulated by the legal act vehicles, such as vehicles owned by the Ministry of Defense, Ministry of Interior etc.; special vehicles not performing goods carriages.

#### Time unit: 1 week

#### Time periods included in the survey: All (13 weeks)

#### Stratification:

The survey is conducted as a proportional stratified sample. Each one type of the motor vehicles in the population - road tractors, special vehicles and lorries are stratified into 5 strata by the vehicle gross weight (up to 7.5T; 7.5 - 14T; 14 - 17T; 17 - 25T; > 25T) as well as by 28 regions of the country. Each one quarter, proportionally stratified sample of vehicles is drawn.

# Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: Not available. Multi stop: Not available. Collection/delivery: Not available. Other variables: Not available.

# Main figures: Not available

# ROMANIA

### SAMPLING REGISTER USED FOR THE SURVEY

Name of register: Vehicles register

Name of organisation who maintains the register: Ministry of Interior

Frequency of update: Quarterly

#### Frequency of access to draw the samples: Quarterly

#### Arrangements for accessing the register:

Before the samples are drown-up, the nomenclature of vehicles is up-dated with the scrapped and new-added vehicles, as well as with the modifications announced by the owners of the vehicles.

#### Information obtained from the register.

Number of registration, category of vehicle, sub-category of vehicle, vehicle registration mark, type of vehicle (lorry, road tractor), year of manufacturing, unloaded weight, maximum permissible weight, load capacity, number of axles of vehicle, type of license (national or international transport) and type of use (own account or hire or reward).

Used in stratification: Type of vehicle, load capacity, type of license and type of use.

*Procedure for reminders*: The transport operators are contacted by phone.

#### SAMPLING METHODOLOGY

Statistical unit: Tractive vehicle

Types of units excluded: Vehicles with load capacity fewer than 3500 kg are excluded

Time unit: 1 week

Time units of quarter 1 of 2004 included in the survey: All (13 weeks)

#### Stratification:

The population of 120000 vehicles is divided into two sub-populations, according to the type of license:

For international transport sub-population (about 7500 vehicles), each vehicle is surveyed one week/year.

*For national* transport sub-population, weekly samples are drawn up quarterly according with the characteristics from point 1.6, as follow:

- a) After the type of use: own account and hire or reward
- b) After the type of vehicle and load capacity:

b.1) Lorries grouped after the load capacity into:	3500 t	o 7500 kg
	7501-	12000 kg
	12001	-17000 kg
	over 1	7000 kg
b.2) Road tractors grouped after the load capacity	into:	3500-17000 kg over 17000 kg
		<b>.</b> .

The samples on each stratum are selected at random according to Neyman formula.

#### Simplifying assumptions used in recording journey data sent to Eurostat:

Single stop: None

Multi stop: None

Collection/delivery: None

Other variables: None

Main figures: Not available

# PART B

# Summary tables

# Table 1 – Scope of surveys

Survey	Sampling base Vehicle types not covere			ered	
	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
Czech Republic	yes		yes	Vehicles < 2t LC	
Denmark	yes			Vehicles < 6t MPLW (national) Vehicles < 6t MPLW belonging to the enterprise (international)	
Germany	yes		yes	Lorries <3.5t LC	
Estonia	yes			Vehicles > 20 years	Vehicles not destined to the transport of goods
Greece	yes		yes	Vehicles <3.5t LC and < 6t MPLW	Vehicles not destined to the transport of goods
Spain	yes		yes	Vehicles <3.5t LC and < 6t MPLW	Special vehicles needing a special registration number and vehicles not destined to the transport of goods
France	yes		yes	Lorries > 32.5 t LC, tractors > 44.5 t. Vehicles < 3.5 t weight Vehicles > 15 years	Special purpose vehicles
Ireland	yes			Vehicles < 2t unladen weight	
Italy	yes	TaxvehicleregisterfromMinistryofEconomyandFinance	yes	Vehicles < 3.5 t LC Vehicles > 11 years	
Cyprus	yes			Vehicles < 3 t LC (national transport only)	
Latvia	yes				Special purpose vehicles
Lithuania		State enterprise 'Regitra'		Vehicles < 6t LC	Special purpose vehicles
Luxembourg	yes		yes	Vehicles < 3t LC	Special purpose vehicles

Survey	Sampl	ling 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	
Hungary		Ministry of Interior	yes	Vehicles < 3.5t LC	Special purpose vehicles	
Malta	yes		yes			
Netherlands		SIEV, NIWO and RDW		Vehicles < 1t LC (Hire or reward) Vehicles < 2t LC (Own account and other companies)	Vehicles not destined to the transport of goods (other companies only)	
Austria	yes		yes	Vehicles < 2t LC	Fire brigade, private household, exterritorial organisation	
Poland	yes		yes	Vehicles ≤ 3.5t MPLW Vehicles > 25 years		
Portugal	yes		yes	Vehicles < 3.5t gross weight	Vehicles not destined to the transport of goods	
Slovenia		Ministry of Interior	yes	Vehicles < 1t LC (2001-2003) Vehicles < 1.5t LC (since 2004)		
Slovakia	yes	Ministry of Interior				
Finland		National: Vehicle Administration Centre International: County government of OULU (only firms with a license are covered)	yes	Lorries < 3.5t gross weight (national transport only)	Special purpose vehicles	
Sweden		National Road Administration and The Swedish Motor Vehicle Inspection Company	yes	Vehicles > 30 years	Special purpose vehicles	

Survey	Sampl	ling base	Ve	hicle types not cov	ered
	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		National: Driver Vehicle Licensing Agency for GB- registered vehicles and Driver Vehicle Licensing for Northern Ireland registered vehicles International: Traffic area database (only firms with a license are covered)		Vehicles < 3.5t gross weight (national transport only)	Special purpose vehicles
Bulgaria		Ministry of Interior	yes	Vehicles < 6t gross weight	Special purpose vehicles
Romania		Ministry of Interior		Vehicles < 3.5t LC	

(1) Ministry of Transport or other national organisations.

#### Simplifying assumption Single stop journey Multi stop journey **Collection/Delivery** Other variables Belgium Tkm=Tonnes\*km/2 Tkm=Tonnes\*km\*2/3 None None Czech Republic Respondents can None None None record only one type of goods, i.e. goods of largest weight Denmark We assume that a In the Danish survey Tkm=0.5\*tonnes loaded None (National) laden journey of type 1 on national transport of \* journey length carries only one type of goods by road laden commodity. If more journeys are either of types of goods are type 1 (single stop) or transported and one of type 3 (collection/delivery) type of goods is dominating (more than 66%) the dominating one is used for the coding. If no type of goods is dominating the class 24 (miscellaneous) is used Journeys of Denmark We assume that a For multi stop journeys type 3 None laden journey of type 1 each transport (collection/delivery) are (international) carries only one type of operation is reported. not accepted in the commodity. If more The journey data are Danish survey of types of goods are derived from the goods international transport. Such - rare - journeys transported and one data type of goods is are reported as multi dominant (more than stop journeys or as an 66%) the dominant one artificial single stop is used for the coding. journey If no type of goods is dominant the class 24 (miscellaneous) is used If on a type 1 journey (single stop) several Germany In case of a multi-stop-These are journeys up to In case of journeys 30 km distance and journey in data set A3 where the vehicle different types of goods several points of loading the various stops operates as a shuttle are transported. the loading and/or unloading. With (points of between one point of type of goods with the and/or unloading) and the aim to reduce the loading and one point of unloading burden of statistics the uppermost weight is the load transported reported in data set A3 respondent is not asked from one point to the the single journeys next stop are reported. for details of all the stops are reported as case several but the number of stops laden In journeys different types (journey type 1) or of goods are transported, empty journeys the type of goods with (journey type 4). the uppermost weight at a time is reported We assume Estonia If more than one goods Same as for single Same as for single stop that within one journey commodity is carried, it stop is coded as "mixed only one commodity goods" type 24. is carried If mixed goods are selected, then goods loading type will be set according to this good which weight (kilograms) is bigger than others Greece n.a. n.a. n.a. n.a. None None Spain None Without points of loading and/or unloading of the

goods, Tkm

maximum

## Table 2 – Simplifying assumptions used in recording journey data

	Simplifying assumption				
	Single stop journey	Multi stop journey	Collection/Delivery	Other variables	
			tonnes*kilometres/2 Only the main type of goods is requested (but all the tonnes)		
France	None	None	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 tonnes- kilometers, 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	None	
Ireland	The data entry system can only take one goods type code so if there is more than one type of goods carried on the journey then the commodity will have to be recorded as a mixed load	The data entry system can only take one origin & destination for a journey. The origin and destination, number of collection stops & weight of goods collected and number of delivery stops & 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	The data entry system can only take one origin & destination for a journey. The origin and destination, number of collection stops & weight of goods collected and number of delivery stops & 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	None	
Italy	When in a laden journey several types of goods are transported we ask the haulier to describe only the main one	To date the staff is able to restructure the details provided by the hauliers on the questionnaire; so the original journey often is restructured into several one stop journey	We ask the respondent to describe for ex: collection rounds under a simplified scheme: total loaded distance traveled, total weight of goods collected, total weight of goods delivered, origin, final destination	For dataset A1 "the vehicle related variables" are connected to the configuration at the beginning of the first laden journey made during the survey week: no successive configurations are recorded	
Cyprus (National)	Only the commodity with the highest weight is taken into account	For the calculation of tonnes* km the sum of weight received plus the weight delivered multiplied by the distance covered is divided by 1500	For the calculation of tonnes* km the sum of weight received plus the weight delivered multiplied by the distance covered is divided by 2000	None	
Cyprus (International)	Only the commodity with the highest weight is taken into account	This type of journey does not take place in International Road transport	This type of journey does not take place in International Road transport	None	
Latvia	In this case these commodities are treated as NST/R	In this case these commodities are treated as NST/R	In this case these commodities are treated as NST/R group 24-	None	

	Simplifying assumption				
	Single stop journey	Multi stop journey	Collection/Delivery	Other variables	
	group 24- miscellaneous articles	group 24- miscellaneous articles	miscellaneous articles		
Lithuania	Only the main commodity is coded	Only the main commodity is coded	None	None	
Luxembourg	n.a.	n.a.	n.a.	n.a.	
Hungary	In the cases when more than one goods commodity is carried, only one, the most relevant is taken into consideration	A type 2 (multi-stop with less than 5 stops) journey is considered as many separate journeys as many stops are (a journey with stops at A-B-C-D is registered as A-B, B- C, C-D journeys	None	None	
Malta	None	None	None	None	
Netherlands	Sometimes a simplification is made by the enterprise. In case the weight of a national shipment is below 1 tonne, the enterprises can combine several shipments. For international transport this can be done in case a shipment is smaller than 5 tonnes	The same procedure as for single stop journeys	The place of loading is the centre in which most loadings have taken place (highest density). The place of unloading is the centre in which most unloadings have taken place (highest density). In case of an international journey with stops in more different countries, for every country at least one shipment should be given	None	
Austria	None. Transport operators are required to fill in as many lines of the questionnaire as different commodity groups are transported	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	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	None	
Poland	In column "type of carried goods" vehicle owners give only one main type of goods, which is dominant considering the weight of goods	For each place of loading can be loaded only one main type of goods which is dominant considering the weight of the goods. In the recording of type 2 journeys more than one type of goods can be carried. Goods are unloaded according to the method FIFO (first type of goods which is loaded is first unloaded)	Each single journey with more than 5 stops is classified as collection/delivery journey. The weight of goods and tonnes- kilometers are calculated according to the formulae: Weight of goods (A2.2) <= maximum load capacity Tonnes-km = $\sum(A3.2 * A3.7)/20$	We use the simplified coding of international transport (the 2- alpha part of the NUTS-codes for the EU-countries and the 2-alpha ISO -3166 codes for other countries). The simplifying assumptions are made for the configuration and the type of transport. We collect data about the configuration of load capacity/maximum permissible weight and the type of transport, which are most frequently-used during the survey period	
Portugal	None	The origin and the destination, such as the distance	We consider type 3 journeys, when the transport operators tell	None	

	Simplifying assumption			
	Single stop journey	Multi stop journey	Collection/Delivery	Other variables
		corresponds to the longest journey, the weight is the sum of each basic transport operation. Calculation of tkm (A2.6): For each single transport operation we multiply the weight by the kilometer and divide by 10, then we sum all the single transport operations of the same journey	us that they made many stops and they can't describe where exactly they stopped and how many kgs did they unload or load in each stage. They only describe the main good carried and where they started and finished the journey	
Slovenia	Only the main type of goods carried is recorded	Only the main type of goods carried is recorded	Only the main type of goods carried is recorded	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
Slovakia	None. Each type of transported goods is surveyed separately	None	None	None
Finland (National)	The commodity class of the goods that has the biggest weight is being used	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	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. Tkm are divided by 2	None
Finland (International)	None	None	None	None
Sweden	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	The respondent records each basic transport operation in the questionnaire. These records are then recalculated to journey level by the staff at Statistics Sweden. The method used can be described as follows: The kilometers driven for the total journey is calculated, the main type of goods (in respect of kilos) is decided and then a formula (see below) recalculate the average weight on the journey level. The exact figures in kilos are used in the calculations. A / B = C	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 <i>average</i> weight for the c/d as a	Regarding trailers we allow the respondent to record the most common trailer or combination of trailers used during the week for measurement. This is a change in the survey from the survey year 2002. 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. These assumptions are according to Annex A of the Regulation

	Simplifying assumption			
	Single stop journey	Multi stop journey	Collection/Delivery	Other variables
		A = Tonne- kilometres for each basic transport operation is calculated and summed up B = Kilometers driven on the journey C = Average tonnes for the journey	whole, the total kilometers 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. In the cases where the vehicle only has c/d-rounds and empty journeys during the survey week it is possible to connect the empty journeys, not empty journeys, not empty journeys, the connection is not possible at the moment. The information from the Swedish survey in the A2 file and the A3 file is the same regarding the survey in the same regarding the survey in the same regarding the same regarding the survey in the survey in the same regarding the survey in the same regarding the same r	
United Kingdom (National)	If a vehicle is carrying more than one type of goods the larger of the two consignments determines the type of goods carried. The weight is the sum of all the consignments for the journey	We collect data for these journeys in the form of single transport operations but can identify that they are legs of a particular 2-4 stop journey. We provide separate A2 records, coded as journey type 1, because our system requires that the journey to consignment relationship is a 1 to 1 relationship	As for a single stop journeys only the main type of goods code is used. Goods lifted is calculated as either the larger of weight of goods delivered and weight of goods collected if delivering and collecting the same goods or weight of goods delivered + weight of goods collected if delivering and collecting different goods. Tkm are calculated as described in 6.5 of the manual	This survey collects international activity for Northern Ireland registered vehicle's activity. These journeys are coded on a consignment (goods operation) basis. On the A2 record an adjustment is made so that the total distance does not include double counting. The A3 distance is not adjusted to enable accurate estimates of tkm for goods related variables
United Kingdom (International)	None	No multi-stop journeys are coded in International road transport	No collection / delivery journeys are coded in International road transport	For grossing purposes it is assumed the number of UK vehicles using a particular ferry route / channel tunnel is the same for inward and outward movements
Bulgaria	n.a.	n.a.	n.a.	n.a.
Romania	None	None	None	None

### Table 3 – Sampling rate in space (of vehicles, firms), 2003

Survey	Statistical unit	Number of statistical units in the population	Number of statistical units in the sample <sup>1</sup>	Sampling rate in space (%)
Belgium	Tractive unit	121 057	62 344	51.5
Czech Republic	ech Republic Tractive vehicle and transport firm		9 715	6.0
Denmark	Tractive vehicle (national)	43 504	3 536	8.1
Denmark	Enterprises (international)	1 241	2 584	208.2
Germany	Tractive vehicle	542 301	213 918	39.4
Estonia	Tractive vehicle	60 750	6 236	10.3
Greece	Tractive vehicle	n.a.	n.a.	n.a.
Spain	Tractive vehicle	327 529	42 400	12.9
France	Tractive vehicle	593 278	85 030	14.3
Ireland	Tractive vehicle	81 040	29 457	36.3
Italy	Tractive vehicle	260 687	79 991	30.7
Cyprus	prus Tractive vehicle		1 612	15.9
Latvia	atvia Tractive vehicle		6 240	5.3
Lithuania Tractive vehicle		58 718	15 016	25.6
Luxembourg	Tractive vehicle	9 480	8 036	84.8
Hungary	Tractive vehicle	316 208	61 526	19.5
Malta	Tractive vehicle and transport firm	-	-	-
Netherlands <sup>2</sup>	Transport firm (own account and hire and reward)	n.a.	114 899	n.a.
Nethenanus	Tractive vehicle (other company vehicles)	n.a.	n.a.	n.a.
Austria	Local unit	19 562	18 202	93.0
Poland	Tractive vehicle	-	-	-
Portugal	Tractive vehicle (Hire or Reward only)	39 099	8 805	22.5
Slovenia	Tractive vehicle	-	-	-
Slovakia	Tractive vehicle	108 634	10 400	9.6
Finland	Tractive vehicle (national)	67 637	8 400	12.4
Finland	Transport firm (international)	4 533	3 200	70.6
Sweden	Tractive vehicle	56 097	12 256	21.8
2	Tractive vehicle (national)	441 543	20 296	4.6
United Kingdom <sup>2</sup>	Transport firm (international)	3 447	4 687	136.0
Bulgaria	Tractive vehicle	-	-	-
Romania	Tractive vehicle	-	-	-

1) "Number of questionnaires dispatched" is indicated. 2) 2002 data

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004)

n.a.: not available (in the case of old MS)

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, 2004

Survey	Time unit	Number of time units in the year	Number of time units represented in the survey in	Time-based sampling rate (%)
			the year	
Belgium	week	52	52	1.92
Czech Republic	week	52	52	1.92
Denmark	week (national)	52	52	1.92
	week for small enterprises and half week for other enterprises (international)	104	104	0.96
Germany	half week	104	104	0.96
Estonia	week	52	52	1.92
Greece	week	52	28	1.92
Spain	week	52	52	1.92
France	week	52	52	1.92
Ireland	week		52	1.92
Italy	week	52	28	1.92
Cyprus	week (national) all journeys (international)	52	52	1.92
Latvia	week	52	52	1.92
Lithuania	week	52	52	1.92
Luxembourg	week	52	28	1.92
Hungary	week (national)	52	52	1.92
	2 weeks (vehicles involved in international transport)	26	26	3.84
Malta	3 days	121	0	0.82
Netherlands	week	52	52	1.92
Austria	week	52	52	1.92
Poland	week	52	52	1.92
Portugal	week	52	52	1.92
Slovenia	week	52	52	1.92
Slovakia	week	52	52	1.92
Finland	2 days (national)	182	84	0.55
	1 or 2 weeks (international)	52 or 26	24	1.92 or 3.84
Sweden	week	52	52	1.92
United Kingdom	Week (national) Dependant on the firm size for international transport	52	52	1.92
Bulgaria	week	52	52	1.92
Romania	week	52	52	1.92

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

Table 5 – Globa	I sampling	rates (in s	space and	in time)
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Survey	Collection unit	Sampling rate in space (%)	Sampling rate in time (%)	Global sampling rate in space and in time* (%)
Belgium	Vehicle-week	50.4	1.92	0.97
Czech Republic	Vehicle-week	-	1.92	-
Denmark	Vehicle-week (national)	8.1	1.92	0.15
Germany	Vehicle-half week	39.0	0.96	0.37
Estonia	Vehicle-week	-	1.92	-
Greece	Vehicle-week	n.a.	1.92	n.a.
Spain	Vehicle-week	13.4	1.92	0.26
France	Vehicle-week	16.1	1.92	0.31
Ireland	Vehicle-week	30.2	1.92	0.58
Italy	Vehicle-week	n.a.	1.92	n.a.
Cyprus	Vehicle-week (national)	-	1.92	-
Latvia	Vehicle-week	-	1.92	-
Lithuania	Vehicle-week	-	1.92	-
Luxembourg	Vehicle-week	84.1	1.92	1.61
Hungary	Vehicle-week	-	1.92	-
Malta	Vehicle-week part	-	0.82	-
Netherlands	Transport firm-week (own account and hire and reward)	n.a.	1.92	n.a.
Austria	Local unit-week	89.1	1.92	1.71
Poland	Vehicle-week	-	1.92	-
Portugal	Vehicle-week	22.5	1.92	0.43
Slovenia	Vehicle-week	-	1.92	-
Slovakia	Vehicle-week	-	1.92	-
Finland	Vehicle-week part (national)	13.0	0.55	0.07
Sweden	Vehicle-week	24.3	1.92	0.47
United Kingdom	Vehicle-week (national)	4.6	1.92	0.09
Bulgaria	Vehicle-week	-	1.92	-
Romania	Vehicle-week	-	1.92	-

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004) n.a.: not available (in the case of old MS)

\* 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 2003, whereas the latter to 2004. 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 %)			
	1999	2000	2001	2002
Belgium	97.4	94.2	90.0	89.2
Czech Republic	-	-	-	-
Denmark	99.2	98.4	98.8	98.3
Germany	96.8	92.9	95.9	96.8
Estonia	-	-	-	-
Greece	n.a.	n.a.	n.a.	n.a.
Spain	93.4	92.4	91.9	92.6
France	82.7	80.4	81.5	81.8
Ireland	59.5	57.1	59.7	57.4
Italy	n.a.	n.a.	n.a.	n.a.
Cyprus	-	-	-	-
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxembourg	67.9	66.8	83.2	93.0
Hungary	-	-	-	-
Malta	-	-	-	-
Netherlands	77.9	95.2	93.9	95.1
Austria	95.2	95.2	95.1	95.4
Poland	-	-	-	-
Portugal	83.7	87.6	90.1	93.1
Slovenia	-	-	-	-
Slovakia	-	-	-	-
Finland	66.6	66.5	66.3	65.1
Sweden	n.a.	74.4	74.0	72.6
United Kingdom	94.7	94.9	95.0	94.7
Bulgaria	-	-	-	-
Romania	-	-	-	-

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004) n.a.: not available (in the case of old MS)

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 %)			
	1999	2000	2001	2002
Belgium	78.6	71.0	63.9	79.6
Czech Republic	-	-	-	-
Denmark	95.5	95.2	95.3	94.5
Germany	94.3	94.1	92.8	93.0
Estonia	-	-	-	-
Greece	n.a.	n.a.	n.a.	n.a.
Spain	74.4	76.8	76.8	79.3
France	87.0	87.6	84.6	80.4
Ireland	63.3	75.1	74.5	66.3
Italy	n.a.	n.a.	n.a.	n.a.
Cyprus	-	-	-	-
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxembourg	100.0	100.0	100.0	100.0
Hungary	-	-	-	-
Malta	-	-	-	-
Netherlands	91.0	95.6	94.7	95.0
Austria	100.0	100.0	100.0	100.0
Poland	-	-	-	-
Portugal	64.2	60.3	61.4	57.6
Slovenia	-	-	-	-
Slovakia	-	-	-	-
Finland	98.4	99.3	99.4	98.9
Sweden	n.a.	92.0	92.7	91.8
United Kingdom	90.6	92.8	92.4	93.7
Bulgaria	-	-	-	-
Romania	-	-	-	-

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004) n.a.: not available (in the case of old MS)

The register quality is defined as the number of usable questionnaires 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 %			
	1999	2000	2001	2002
Belgium	2.0	2.2	3.2	Not calculated
Czech Republic	-	-	-	-
Denmark	5.7	5.5	5.2	6.3
Germany	0.90	0.90	Not calculated	Not calculated
Estonia	-	-	-	-
Greece	n.a.	n.a.	n.a.	n.a.
Spain	1.6	1.5	Not calculated	Not calculated
France	1.6	2.3	Not calculated	Not calculated
Ireland	3.5	3.9	3.5	Not calculated
Italy	1.5	1.8	1.7	Not calculated
Cyprus	-	-	-	-
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxembourg	4.7	4.6	3.9	Not calculated
Hungary	-	-	-	-
Malta	-	-	-	-
Netherlands	0.9	1.0	Not calculated	Not calculated
Austria	2.4	2.4	2.4	Not calculated
Poland	-	-	-	-
Portugal	4.5	5.9	5.8	5.5
Slovenia	-	-	-	-
Slovakia	-	-	-	-
Finland	6.6	8.0	7.2	7.9
Sweden	n.a.	4.2	4.4	4.1
United Kingdom	1.9	1.7	Not calculated	Not calculated
Bulgaria	=	-	-	-
Romania	-	-	-	-

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004) n.a.: not available (in the case of old MS)

Percentage standard error of estimate (95% confidence).

<u>Reference</u>: 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.

In the case of Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria and UK, the analysis of the standard error for 2002 was not carried out, as the analyses carried out on the data for 1999, 2000 and for some of the countries in 2001 indicate that the precision standards achieved were well within the targets proposed by Eurostat (5%).

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

Survey	Standard error (tonne-kilometres), in %			
	1999	2000	2001	2002
Belgium	1.3	1.5	2.9	Not calculated
Czech Republic	-	-	-	-
Denmark	3.8	4.2	4.2	4.4
Germany	0.7	0.7	Not calculated	Not calculated
Estonia	-	-	-	-
Greece	n.a.	n.a.	n.a.	n.a.
Spain	1.1	1.1	Not calculated	Not calculated
France	0.8	0.9	Not calculated	Not calculated
Ireland	3.1	3.1	3.8	Not calculated
Italy	1.5	1.8	1.6	Not calculated
Cyprus	-	-	-	-
Latvia	-	-	-	-
Lithuania	-	-	-	-
Luxembourg	3.1	2.9	2.4	Not calculated
Hungary	-	-	-	-
Malta	-	-	-	-
Netherlands	0.4	0.5	Not calculated	Not calculated
Austria	2.0	2.0	2.2	Not calculated
Poland	-	-	-	-
Portugal	3.8	3.5	3.7	3.7
Slovenia	-	-	-	-
Slovakia	-	-	-	-
Finland	7.9	8.7	9.4	4.1
Sweden	n.a.	3.7	3.5	3.4
United Kingdom	2.4	2.4	Not calculated	Not calculated
Bulgaria	-	-	-	-
Romania	-	-	-	-

Note: -: not applicable (new MS excluded from Reg. 1172/98 before 2004) n.a.: not available (in the case of old MS)

Percentage standard error of estimate (95% confidence).

<u>Reference</u>: 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.

In the case of Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria and UK, the analysis of the standard error for 2002 was not carried out, as the analyses carried out on the data for 1999, 2000 and, for some of the countries, in 2001 indicate that the precision standards achieved were well within the targets proposed by Eurostat (5%).