

COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMISSION REPORT TO THE COUNCIL

on experience acquired in the work carried out pursuant to
Council Directive 78/546/EEC of 12 June 1978 on statistical
returns in respect of carriage of goods by road, as part of
regional statistics

COM(83) 257 final

EXPLANATORY MEMORANDUM

The development of the common transport policy has called for a better knowledge of the scale and development of the carriage of goods by road.

Council Directive 78/546/EEC of 12 June 1978 (1) requires each Member State to compile annual statistical data on the carriage of goods by vehicles registered in its territory, and to forward to the Commission the results of the surveys together with a detailed report on the methods used.

The Commission is required under Article 7 of the Directive to examine together with Member States the statistical tables and reports submitted by the Member States, in order to ensure that the methods employed yield comparable results.

The Commission is required under Article 8 of the Directive to report to the Council on the work carried out pursuant to this Directive and to propose any amendments necessary in the light of the results obtained.

The report contains :

- i) a list of surveys carried out by Member States,
- ii) a selection of the principal results for 1979 and 1980 submitted by Member States and published by the Commission,
- iii) a description of the methods, sampling rates and response rates in the various surveys,
- iv) information on the accuracy of the results,
- v) a note on problems for further study in any future extension of the Directive.

The Commission considers, after examination in collaboration with Member States of the experience acquired to date, that the surveys carried out under the Directive can provide comparable data on the scale and development of the carriage of goods by road by means of vehicles registered in the Community.

The Commission concludes that the Directive can be implemented without amendment and that the main statistical results correspond to its objectives.

(1) O.J. N° L 168 of 26.6.1978, p. 29

Commission Report to the Council

on experience acquired in the work carried out pursuant to Council Directive 78/546/EEC of 12 June 1978 on statistical returns in respect of carriage of goods by road, as part of regional statistics (1)

Basis of the Report

1. The Commission is required under Article 8 of the Directive to submit a report to the Council before 1 January 1983 on experience acquired in the work carried out pursuant to this Directive and to propose any amendments necessary in the light of the results obtained, particularly to prevent the movement of goods between Member States being systematically subject to formalities specifically designed for the purposes of applying this Directive.

Statistics covered by the Directive

2. This Directive covers annual statistics on carriage of goods by means of commercial motor vehicles registered in a Member State within the territory of that Member State (national transport) and between that Member State and another Member State or a non-Member State (international transport). The Directive does not apply to :
 - (i) vehicles registered in a non-Member State, even in journeys to or from a Member State;
 - (ii) vehicles whose weight or dimensions exceed the normal permitted limits;
 - (iii) agricultural vehicles, military vehicles and vehicles used by public administrations and public services, with the exception of road vehicles used by the railway administrations.

Member States may refrain from applying this Directive to small vehicles (below a limit not exceeding 3.5 tonnes payload or 6 tonnes total permissible laden weight).

(1) O.J. N° L 168 of 26 June 1978, p. 29

3. Statistics of national and international transport, expressed in tonne-kilometres and/or tonnes, are broken down into carriage on own account and carriage for hire or reward according to 24 groups of goods. National transport is further broken down by region and by four classes of length of journey, and international transport by country of loading/unloading.

Transmission of survey results

4. Member States are required under Article 5 to compile annual statistical returns for 1979 onwards, and to send the data to the Commission before the end of the year following the reference year. The Minutes of the Council of Ministers of Transport in June 1978 recorded that 1979 should be regarded as a "trial" period in view of the technical difficulties involved.
5. Data in respect of 1979 was sent by six Member States before the end of 1980 and by two Member States by June 1981. Some of the data supplied by the United Kingdom and Denmark referred only to the second half of 1979, but was extrapolated to the whole year. A postal strike delayed the introduction of the survey in Ireland, which was able to supply statistics only for the last quarter of 1979; seasonal factors made it impossible to extrapolate to the whole year.
6. Data for 1980 was sent by five Member States before the end of 1981 and by three others by September 1982. The United Kingdom supplied returns of international transport which include for the first time vehicles registered in Northern Ireland moving on roll-on/roll-off vessels from British ports but still exclude traffic across the Irish Land Boundary.
7. In 1981, Greece initiated a survey of international transport and forwarded the results in June 1982. A short-term pilot survey of national transport was conducted in 1981 but revealed the vehicle register to be incomplete and out-of-date; a continuing national transport survey was introduced in March 1982.
8. In Italy, the vehicle register which it was intended to use as a sampling frame was destroyed in a bomb attack in 1979 and has subsequently not been reconstituted. In 1982 therefore, the Commission initiated formal proceedings under Article 169 of the Treaty of Rome in respect of Italy's failure to comply with this Directive.

Publication of survey results

9. The Commission is required under Article 5 to communicate the results of the surveys to Member States at the earliest possible date. The Statistical Office of the European Communities processed the 1979 data by end 1981 and circulated the detailed results for the seven Member States concerned in an internal publication to the Directorate General for Transport and to the Statistical services and the Ministries of Transport of the Member States ("Community Survey on the carriage of goods by road", Volumes 1 to 5, January 1982). The 1980 data for eight Member States was processed by end of 1982 and a similar publication was issued in January 1983.
10. As required under Article 7, the Commission has examined, in collaboration with Member States, the statistical returns and methodological reports submitted by Member States. It was agreed in June 1982 that the surveys were broadly comparable and that suitable summaries of the results could be given wider circulation, although the figures in individual cells of detailed cross-tabulations would remain subject to reservations because of sampling error. Some of the principal statistics of national and international transport in 1979 and 1980 are given in Annex 1.

Survey methods

11. Member States are required under Article 6 to forward to the Commission a detailed report on the methods used in compiling the data. The Directive does not prescribe a specific method but underlines the need to prevent the movement of goods between Member States being systematically subject to formalities specifically designed for the purpose of collecting the statistics required.
12. The Statistical Office of the European Communities has summarised these reports ("Methodology of the Community Survey of Carriage of Goods by Road", STATRA 244, February 1982) and examined the methods in collaboration with the Member States. The nine Member States which have so far submitted statistical returns, have employed a total of 17 different methods, the majority of which rely upon sample surveys using questionnaires sent by post to transport operators in respect of the transport operations carried out by individual road goods vehicles in a sample week

(sampling in space and time). The sample designs usually involve stratification (e.g. size, type and age of vehicle) for optimum efficiency in relation to survey costs. Separate surveys are conducted for own account and for hire or reward transport in two Member States (Germany and Netherlands), and for national and for international transport in five Member States (Germany, Netherlands, United Kingdom, Denmark and Greece). International transport statistics are based upon external trade statistics in Denmark, upon record cards from frontier posts in Germany and upon TIR documents in Greece; the basic source documents for these surveys were already in use prior to the Directive, as were the waybills and monthly returns used for long distance transport surveys in Germany.

13. Member States are permitted under Article 2 to adopt a survey cut-off point for small vehicles not exceeding "3.5 tonnes payload or 6 tonnes total permissible laden weight" (GVW). Subsequently, Member States agreed to adopt in principle a cut-off point of 3 tonnes payload wherever possible; detailed examinations of the park of road vehicles in France and Denmark established that : 3.5 tonnes payload = 6.9 tonnes GVW and 3.0 tonnes payload = 6.0 tonnes GVW. In practice only France and Denmark (national transport) were able to adopt this cut-off point in 1979. Other countries either included all goods vehicles or adopted a lower cut-off (e.g. Belgium with 1 tonne payload and United Kingdom with 3.5 tonnes GVW = 2 tonnes payload), except in Germany where the long distance own account transport statistics are based upon motor vehicles with a payload over 4 tonnes. In France, previous surveys which covered all goods vehicles of 1 tonne payload and over, had showed that the smaller vehicles (1 tonne but below 3 tonnes) formed 54 percent of the total numbers of goods vehicles but carried only 8 percent of the total tonnes transported and performed only 6 percent of the total tkm. In 1979, goods vehicles of this size formed 46 percent of the total numbers and 10 percent of the total carrying capacity of goods vehicles in Belgium, but carried only 4 percent of the total tonnage transported and performed only 3 percent of the total tkm (only 0.7 percent of the t and tkm in international transport). The use of different survey cut-off points in Member States is unlikely to have had a major effect upon the statistical results, especially for international transport.

14. The Minutes of the Council of Ministers of Transport in June 1978 recorded the difficulty of clearly defining "commercial motor vehicle", in view of the divergence of survey methods used in different Member States and requested that the statistical consequences in the form of double counting or omission be quantified as far as possible. The aim of the Directive, set out in Article 1, is to cover the carriage of goods by road by means of vehicles registered in Member States and the definitions in Article 2 cover "any single vehicle or coupled combination of vehicles, such as a lorry with or without trailer, or a tractor vehicle with trailer or semi-trailer". No problem arises in respect of national transport (on average over 95 percent of all road transport) or single vehicles, but one may arise when goods are carried between Member States in a coupled combination of vehicles.
15. A semi-trailer registered in one of three Member States which use the "load-carrying vehicle" survey method could in theory be hauled throughout an international journey by a tractor registered in another Member State which uses the alternative "powered vehicle" method and so be recorded in both surveys; in the contrary case, no journey would be recorded by either. A change in the composition of a combination of vehicles is not uncommon en route, for example after an unaccompanied semi-trailer movement by roll-on/roll-off ferry or piggyback train, or at a land boundary. Changes en route between Member States which use different methods of survey and of vehicle registration may lead to partial double counting (1) or partial omission (2); changes en route between Member States which use the same survey method may lead to underestimation of international transport (3). These problems are now being examined in depth with the Member States (4).

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- (1) Goods on a French registered semi-trailer hauled first in France by a French registered tractor and then in the United Kingdom by a British registered tractor will be recorded in the French survey ("international" transport) and, in part, in the British survey also ("national" transport).
- (2) Goods on a semi-trailer owned in Britain (which does not register semi-trailers) hauled first by a French registered tractor in France and then by a British tractor will be recorded, in part, in the British survey only ("national" transport).
- (3) Goods on a semi-trailer hauled by a Netherlands tractor and then by a British registered tractor will be recorded as "national" transport in both surveys.
- (4) Semi-trailers make a large contribution to road transport (in 1979 they accounted for 34 percent of the total tonnes and 57 percent of the tkm by Belgian vehicles, for 40 percent and 60 percent respectively by French vehicles; and in international transport for 70 percent of the tonnes and 74 percent of the tkm by Belgian vehicles, and 62 percent of the total tonnes crossing the German frontier).

Accuracy of the results

16. Member States are required under Article 6 to "take steps necessary to obtain sufficient results regarding the total tonnage carried in national and international transport" and to report to the Commission annually on the non-response rate and on the degree of accuracy, in the form of standard deviations or confidence intervals, of the results regarding transport "between national regions" and "between their territory and that of the other Member States".
17. Non-response is virtually nil in four surveys, is 10 percent or less in four surveys, and is about 20 percent or less in four further surveys, with the highest rate 40 percent (two surveys). In some Member States, three major categories of non-response have been identified : vehicles sold, i.e. out-of-date addresses in the register, questionnaires not returned or returned unusable, and vehicles laid-up or scrapped (causes which refer particularly to smaller and older vehicles). Treatment of non-response by most Member States by adjustment of raising factors is based on the normal hypothesis that non-respondents are not dissimilar to respondents; in France, which does not make this adjustment, the grossed-up figures are believed to be under-estimated by 15 percent.
18. Results may also be subject to some under-estimation if the selection of the vehicles is made from a relatively out-of-date register (e.g. Belgium, the register of vehicles at previous year-end) without including vehicles newly registered each month, since it is known that newer vehicles have a higher annual performance.
19. Estimates of sampling errors or standard deviations have been supplied by six Member States for several of the principal statistics of their national and/or international transport. These estimates of tonnes transported, converted where appropriate to a common 95 % confidence level, are given in Annex 2. The levels of accuracy indicated are high, even extremely high in sampling terms for the major transport flows, but may be considerably lower in respect of minor transport flows (e.g. with less important countries or regions), and particularly in respect of the most detailed results (e.g. regional traffic cross-classified by commodity). The problems of sampling error will be examined in detail in collaboration with Member States when further estimates have been received; it is unlikely that annual estimates of sampling errors will be necessary, unless the individual sampling designs or sampling rates are modified.

Need for amendments to the Directive

20. This Report evaluates the survey experience acquired since 1979 and the statistical results reported for the first "trial" year. The technical and administrative difficulties in establishing surveys under the Directive have been or are now being overcome in nine Member States, difficulties which do not call into question the Directive as such. The Commission considers on the basis of this experience that the results obtained are broadly comparable between Member States and correspond to the Council's objectives set out in the preamble to the Directive.
21. The last recital of the Directive mentions the possibility of extending the scope of the Directive by compiling data on the main flows of goods between the regions of the Community in the form of international traffic. This possibility is also envisaged in the Council Directives on statistics on carriage of goods by inland waterway (80/1119/EEC) (1) and by rail (80/1177/EEC) (2), which stipulate in Article 5 that, within two years of these Directives coming into force, i.e. by end December 1982, the Council will decide on the basis of proposals from the Commission whether to institute statistics on international traffic between regions. It is to be noted, however, that statistics for both these modes of transport are based upon complete enumeration, whereas statistics for the carriage of goods by road involve more complex methods largely by sample survey. The Commission is studying in collaboration with Member States the problems involved in introducing this extension into the surveys for the carriage of goods by road.
22. Also under study are the possibilities of compiling information on a) the carriage of goods by road in international traffic between Member States and certain European countries not listed separately in Annex III to the Directive, and on b) the carriage of goods by road vehicles registered in individual Member States "cross-trading" between other countries.

(1) O.J. N° L 339 of 15.12.1980, p.30

(2) O.J. N° L 350 of 23.12.1980, p. 23

Conclusion

23. The Commission considers, on the experience acquired to date, that the Directive can be implemented without amendment, and that the main statistical results correspond to its objectives. The Commission will examine, in collaboration with Member States, the problems involved in extending the scope of the Directive and will make proposals to the Council by January 1985.

LIST OF ANNEXES

Annex 1

- Table 1 National and international transport 1979
- Table 2 National transport 1979
- Table 3 National and international transport 1980
- Table 4 National and international transport by group of goods 1979
- Table 5 International transport by country of loading/unloading 1979
- Table 6 International transport, Intra EUR-7, by country of loading/unloading 1979

Annex 2

- Table 1 Sampling errors
- Table 2 Road goods surveys 1979, Methodology :
 - 2 (i) Type of survey, sampling and response rates
 - 2 (ii) Multistage sampling designs
 - 2 (iii) Type of vehicle, survey cut-off point and stratification

NATIONAL AND INTERNATIONAL TRANSPORT, 1979

	Country of registration of vehicle									
	EUR-7	D	F	N	B	L	UK	DK		
TOTAL	6 342	2 565	1 368	374	311	21	1 474	229		
	100	40,4	21,6	5,9	4,9	0,3	23,2	3,6		
<u>National</u>	6 195	2 528	1 338	334	286	18	1 469	222		
<u>International</u>	147	37	30	40	25	3	5	7		
of which :	100	25,0	20,7	27,3	16,9	1,7	3,2	5,1		
loaded	78	18	16	21	15	1	2	4		
unloaded	69	19	14	19	10	1	2	3		
of which with :										
EUR-7	121	27	23	38	24	2	3	4		
%	100	22,2	18,9	31,2	19,4	2,0	2,8	3,5		
Italy	12	4	5	1	1	0	1	0		
Ireland	0	0	0	0	-	.	0	0		
Third countries	13	5	2	1	0	-	0	3		

NATIONAL TRANSPORT, 1979

ANNEX 1: TABLE 2

	Country of registration of vehicle									
	EUR-7	D	F	N	B	L	UK	DK		
<u>TOTAL</u>										
Mio t	6 195	2 528	1 338	334	286	18	1 469	222		
Mio tkm	322 621	98 833	84 497	17 000	9 861	278	103 200	8 952		
Average km	52	39	63	51	34	16	70	40		
of which :										
(i) <u>Own account</u>										
Mio t	3 524	1 485	928	123	183	15	716	75		
% total	57	59	69	37	64	83	49	34		
Mio tkm	134 423	40 797	39 791	5 579	5 700	228	39 500	2 828		
% total	42	41	47	33	58	82	38	32		
Average km	38	27	43	45	31	15	55	38		
(ii) <u>Intraregional</u>										
Mio t	4 996	2 061	1 119	245	221	18	1 110	222		
% total	81	82	84	73	77	100	76	100		
Number of regions	69	22	22	7	4	1	12	1		
Average mio t per region	90	115	61	48	72	18	122	222		
Average mio tkm per region	4 676	4 492	3 841	2 429	2 465	278	8 600	8 952		

NATIONAL AND INTERNATIONAL TRANSPORT, 1980

	Country of registration of vehicle										
	EUR-8	D	F	N	B	L	UK	IR	DK		
TOTAL	mio t	2 528	1 386	395	337	19	1 376	103	195		
<u>National</u>	mio t	2 490	1 356	351	311	17	1 372	101	188		
of which :	mio tkm	98 313	88 322	17 370	10 315	278	93 900	4 490	7 850		
(i) own account	mio t	1 464	956	140	198	15	687	73	68		
	mio tkm	41 095	43 528	5 948	5 949	219	36 500	2 935	2 523		
(ii) intraregional	mio t	2 027	1 128	259	242	17	1 033	101	188		
<u>International</u>	mio t	38	30	44	26	2	4	2	7		
of which :											
loaded	mio t	19	15	23	16	1	2	1	4		
unloaded	mio t	19	15	21	10	1	2	1	3		

NATIONAL AND INTERNATIONAL ROAD TRANSPORT BY GROUP OF GOODS, 1979

Group of Goods	National (EUR-7)						International (Intra EUR-5*)		
	Total			of which own account			Total	of which own account	
	% t	% tkm	average km	% t	% tkm	average km	% t	% t	% t
1 Cereals	1,4	1,6	58	1,5	1,7	43	0,8	1,1	
2 Potatoes, etc.	1,3	2,3	92	1,5	2,9	73	3,8	6,6	
3 Live animals, sugar beet	1,3	1,3	52	0,9	1,3	57	0,4	0,8	
4 Wood, cork	1,7	2,8	86	1,6	2,9	70	3,8	6,9	
5 Textiles, etc.	0,5	1,0	101	0,5	1,0	72	2,1	2,7	
6 Foodstuffs, etc.	11,1	17,7	84	12,9	22,3	66	11,7	14,9	
7 Oil seeds	0,2	0,6	143	0,1	0,4	105	1,2	0,9	
8 Solid mineral fuels	2,2	1,6	38	1,3	0,9	27	1,5	1,5	
9 Crude petroleum	0,0	0,0	70	0,0	0,0	54	0,0	0,0	
10 Petroleum products	6,1	6,4	54	7,2	9,2	49	2,7	2,9	
11 Ferrous ores	0,6	0,5	40	0,7	0,6	32	0,5	0,5	
12 Non-ferrous ores	0,3	0,3	59	0,3	0,3	41	0,5	0,2	
13 Metal products	2,6	5,6	112	1,6	3,1	76	8,3	4,3	
14 Cement, lime, etc.	8,4	8,3	52	8,8	9,0	40	7,6	8,0	
15 Crude, manufactured minerals	42,3	15,4	19	44,5	19,1	16	16,1	23,2	
16 Fertilisers	1,1	1,5	67	1,2	1,2	40	1,3	1,2	
17 Coal chemicals	0,2	0,1	41	0,1	0,0	14	0,1	0,0	
18 Other chemicals	4,7	6,3	69	4,5	4,4	37	12,6	4,8	
19 Paper pulp	0,3	0,5	111	0,2	0,3	62	0,9	0,8	
20 Transport equipment	2,2	4,7	107	2,0	4,3	84	6,4	5,2	
21 Metal manufactures	1,0	2,0	101	1,0	1,8	70	1,5	1,4	
22 Glass, ceramics	0,5	1,2	136	0,4	0,9	84	2,0	1,7	
23 Other manufactured articles	3,0	7,8	134	2,5	5,9	91	9,5	7,6	
24 Miscellaneous	6,9	10,6	79	4,8	6,3	50	4,8	2,5	
TOTAL EUR-5*)	100 %	100 %		100 %	100 %		100 %	100 %	
	6 195	322 621	52	3 524	134 423	38	111	26	
TOTAL EUR-7									
% mio t									
% mio t									
% mio tkm									
% average km									

*) Federal Republic of Germany, France, Netherlands, Belgium, Denmark.

INTERNATIONAL TRANSPORT BY COUNTRY OF LOADING/UNLOADING, 1979

1000 t

Country of loading/unloading	Quantity loaded	Quantity unloaded
TOTAL	132 841	135 482
EUR-7	121 505	121 505
Italy	6 033	6 381
Ireland	54	211
Third countries	5 249	7 385
of which :		
Switzerland	756	2 494
Austria	843	1 377
Yugoslavia	100	129
Greece	36	79
Turkey	7	14
Spain	758	952
Portugal	89	271
Norway	160	243
Sweden	1 448	1 205
Finland	36	34
German Democratic Republic (1)	54	42
Czechoslovakia	582	29
Other Europe	231	128
North Africa	7	25
Near and Middle East	2	79
Other countries	140	284

(1) Excludes transport between Federal Republic of Germany and German Democratic Republic in vehicles registered in the Federal Republic of Germany (total transport between these two countries was 2.3 mio tonnes).

INTERNATIONAL TRANSPORT, INTRA EUR-7, BY COUNTRY OF LOADING/UNLOADING, 1979

1000 t

Country of loading	Country of unloading									
	EUR-7	D	F	N	B	L	UK	IK		
EUR-7	121 505	37 942	23 585	27 902	23 765	2 759	3 094	2 458		
D	31 946	-	7 050	15 665	6 179	919	564	1 569		
F	24 366	11 780	-	2 108	8 257	684	1 298	239		
N	27 128	14 796	3 199	-	8 119	105	530	379		
B	29 410	6 845	11 529	9 417	-	1 051	411	157		
L	2 768	1 251	538	168	811	-	-	-		
UK	2 429	622	1 087	312	294	-	-	-		
IK	3 458	2 645	182	232	105	-	291	-		

SAMPLING ERRORS, Tonnes (95 % confidence intervals)

Member State reporting *)	International transport			National transport		
	Loaded	Unloaded	Traffic relation/ type of carriage	Total	Intraregional traffic/type of carriage	
					below ...	Number of regions
Germany	± 5,9 % NIL	± 5,9 % NIL	Belgium, Netherlands, France, Italy, Denmark UK, Ireland, Luxembourg, Greece	± 0,2 %	± 2,0 % ± 4,0 %	21 regions 1 (Bremen)
France	:	:		± 2,0 %	± 7,5 % ± 10,0 % ± 20,0 % ± 24,7 %	1 (Paris) 3 regions 16 regions 1 (Limousin)
Netherlands 1976	± 4,8 % ± 61,1 % NIL	:	Belgium hire/reward Luxembourg hire/reward Other countries hire/reward	± 2,2 %	± 2,0 % ± 3,0 % ± 5,0 %	1 region 3 regions 4 regions
Belgium	± 0,2 % ± 0,6 %	± 0,2 % ± 0,5 %	Hire or reward Own account	± 0,12 %	± 1,0 % ± 1,5 %	3 regions 1 (Bruxelles)
United Kingdom	± 2,6 %	± 2,9 %		± 1,7 %	± 13,0 % ± 19,0 % ± 21,0 % ± 31,0 %	3 regions 7 regions 1 (East Midlands) 1 (Greater London)
Denmark	NIL	NIL		± 6,3 %	(i) ± 8,8 % (ii) ± 12,0 %	Hire or reward Own account

*) Reports on sampling errors received by end December 1982.

ROAD GOODS SURVEYS, 1979 METHODOLOGY : Type of survey, sampling and response rates

Country	Survey(s)	Type of transport covered	Source of documents/data		Type of statistical enumeration	Overall sampling rate %	Response rate %
Germany	A	Long distance hire/reward	Waybill	Operator	Sample	39,4	100
	B	Long distance own account	Monthly return	Operator	Sample	11,4	95
	C	Short distance (< 50 km)	Questionnaire	Operator	Sample	0,2	80
	D	International (frontier crossing)	Record card	Driver	Sample	37,4	100
France	All	All	Questionnaire	Operator	Sample	0,3	75
Italy	A	National					
	B	International					
Netherlands	A	Own account	Questionnaire	Operator	Sample	0,4	87
	B	Hire/reward within Benelux	Questionnaire	Operator	Sample	1,9	90
	C	Hire/reward outside Benelux	Questionnaire	Operator	Complete	100	100
Belgium	All	All	Questionnaire	Operator	Sample	0,6	80
Luxembourg	All	All	Questionnaire	Operator	Sample	1,9	60
United Kingdom	A	National	Questionnaire	Operator	Sample	0,1	78
	B	International (sea crossing)	Questionnaire	Operator	Sample	3,4	65
Ireland	All	All	Questionnaire	Operator	Sample	0,5	60
Denmark	A	National	Questionnaire	Operator	Sample	0,2	91
	B	International	External trade	Importer/exporter	Complete	100	100
Greece	A	National (1982)	Questionnaire	Operator	Sample	?	
	B	International (1981)	T.I.R. Carnet	Operator	Complete	100	95

ROAD GOODS SURVEYS, 1979 METHODOLOGY : Multistage sampling designs

Country	Survey	First stage			Second stage			Third stage			Overall Sampling Rate %
		Unit	Number in		Unit	Number in		Unit	Number in		
			Population	Sample		Population	Sample		Population	Sample	
Germany	A	Operator	9 031	9 031	Journey	13 216 695	5 201 135	-	-	-	39,4
	B	Operator	32 998	32 998	Journey	14 464 575	1 653 283*	-	-	-	11,4
	C	Vehicle	930 000	85 000*	Week	52	1	-	-	-	0,2
	D	Vehicle	8 725 931	3 267 782*	-	-	-	-	-	-	-
France		Vehicle	540 000	92 000*	Week	52	1	-	-	-	0,3
Italy	A										
	B										
Netherlands	A	Vehicle	110 000	24 000*	Week	52	1	-	-	-	0,4
	B	Operator	8 500	8 500	Week	52	1	-	-	-	1,9
	C	Operator	1 600	1 600	-	-	-	-	-	-	100
Belgium		Vehicle	184 130	57 978*	Week	52	1	-	-	-	0,6
Luxembourg		Vehicle	7 000	7 000	Week	52	1	-	-	-	1,9
United Kingdom	A	Vehicle	503 000	20 800*	Week	52	1	-	-	-	0,1
	B	RoRoroute	?	15	Sailing	?	??	?	?	6 358*	3,4
Ireland		Vehicle	92 000	23 000*	Week	52	1	-	-	-	0,5
Denmark	A	Vehicle	44 000	4 000*	Week	52	1	-	-	-	0,2
	B	Consignment	-	-	-	-	-	-	-	-	100
Greece	A	Vehicle	?	?	Week	52	1	-	-	-	?
	B	Vehicle	-	-	-	-	-	-	-	-	100

* Stratified sample with variable sampling fraction

ROAD GOODS SURVEYS 1979 METHODOLOGY : Type of vehicle, survey cut-off point and stratification

Country	Survey	Type of vehicle covered	Survey cut-off points			Basis of stratification						
			Vehicles excluded	Vehicles incl. ϕ		Region	Econ. Activity	Country	Frontier point	Total strata *	Vehicle	
				Payload (t)	G.W.V. (t)						Size $\frac{1}{2}$	Type
Germany	A	All	-	-	-	x12	-	-	-	-	12	
	B	Powered vehicle	> 4,0	-	-	x12	x18	-	-	-	216	
	C	Powered vehicle	\geq 1,0	-	-	-	x18	-	-	-	?	
	D	All	-	-	-	-	-	x2	x2	-	4	
France		Load carrying vehicle	\geq 3,0	-	-	-	x2	-	-	-	50	
Italy	A											
	B											
Netherlands	A	Powered vehicle	\geq 1,0	-	-	x7	x41	-	-	-	2 296	
	B	All	\geq 1,0	-	-	xop	-	-	-	-	169	
	C	All	\geq 0,5	-	-	-	-	-	-	-	-	
Belgium		Load carrying vehicle	\geq 1,0	-	-	x14	-	-	-	-	84	
Luxembourg		Load carrying vehicle	\geq 1,0	-	-	-	-	-	-	-	-	
United Kingdom	A	Powered vehicle	(>2,0=)	>3,5	-	x8	-	-	-	-	144	
	B	Powered vehicle	(>2,0=)	>3,5	-	xop	-	x5	x10	-	?	
Ireland		Powered vehicle	-	-	-	x3	-	-	-	-	9	
Denmark	A	Powered vehicle	(>3,0=)	> 6	-	x4	-	-	-	-	20	
	B	All	-	-	-	-	-	-	-	-	-	
Greece	A											
	B											

Notes : "G.V.M." = Gross vehicle weight; ϕ France includes only vehicles less than 15 years old.

$\frac{1}{2}$ = Road tractors for semi-trailers included by Germany "B" over 40 kW; by Denmark "A" over 3 t GVW.

* = Size of operator : Netherlands "B"; U.K. "B".

* = Not all strata are cross-stratified.

