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STATISTICS ON SELECTED SERVICE SECTORS IN THE EU

A synthesis of quantitative results of pilot surveys on audiovisual services, hotels and travel agencies and transport

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Y. Franchet
Directeur général

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Theme
Distributive trades, services and transport
Series
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STATISTICAL DOCUMENT

A great deal of additional information on the European Union is available on the Internet.
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Preface

This publication has been commissioned by Eurostat, unit D2 "Distributive trades and services", headed by Mr. Marco Lancetti. It reports on the main statistical findings of pilots surveys in the European Union on three important service sectors: Audiovisuals, Hotels and Travel Agencies and Transport.

The purpose of the pilot surveys has been twofold, namely supplying preliminary data for the surveyed sectors and gaining methodological experiences and thus preparing the way for regular data collection in the frame work of a regulation on structural business statistics. The first purpose is fulfilled with this publication and the methodological experiences of the pilot surveys have been valuable input for the preparation of the above-mentioned regulation. The Council regulation concerning structural business statistics has been adopted in December 1996. In the period up to reference year 1999 the implementation of the regulation will lead to a substantial improvement in terms of data availability on service sectors in the European Union.

The report was prepared under a contract with Statistisches Bundesamt, Germany, Instituto Nazionale di Statistica, Italy, Statistics Netherlands and Statistics Denmark. It contains statistics on audiovisuals, hotels and travel agencies and transport originating from pilot surveys on these sectors organised by Eurostat and executed in collaboration with the National Statistical Offices.

The development of European business statistics on the service sectors has been supported by DG XXIII "Enterprise Policy, Distributive Trades, Tourism and Cooperatives". The views expressed in the publication are those of the authors and do not necessarily reflect the opinion of the European Commission.

Luxembourg, February 1997

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Introduction

1.1 Introduction

The Council Decision of 18 June 1992 establishing a two-year programme for the development of European statistics on services (92/326/EEC) in Article 3 provides for the "carrying out of pilot surveys of service enterprises". In line with the action plan, these pilot surveys are intended to "supply preliminary data for the sectors covered and prepare the way for regular data collection based on the methodology". In this context, priority should be given to "those activities which are most dynamic and to those which are least covered by existing statistics". Therefore, Eurostat and the Member States have given priority to pilot surveys on business services[1], audiovisual services, hotels and travel agencies and transport services.

1.2 Employment 1970-1993

One of the main features in the economic development of Europe in the last twenty-five years has been the growing importance of the services sector. This can be illustrated by the development of employment in market services compared to the overall economy.

In 1970 employment in market services in the countries which today constitute the European Union comprised approximately 1/3 of total employment, cf. table 1.1. In countries like Italy, France and Germany, which traditionally have well-developed manufac-turing industries, market services constituted 30% of total employment. On the other hand market services in the Netherlands and Sweden accounted for more than 40%.

Since then, employment in market services have risen in all countries, and in 1990 employment in market services constituted more than 40% of total employ-ment in all Member States except Denmark, cf. table 1.1. In the United Kingdom and Sweden employment in marked services now makes up more than half of total employment.

The development in market services has not been the same in all countries. Denmark, Finland and Spain have experienced the smallest growth rates, and also in countries like Belgium, Germany, Portugal and France growth have been relatively small.

[1] The results of the first pilot survey have been published in Eurostat: Business Services in Europe (1995)

Table 1.1: Share of market services in total economy by no. of persons employed, 1970-93

Country	1970	1980	1985	1990	1993
B	36.5	42.1	45.3	47.9	48.7[1]
DK	34.5	34.1	34.1	35.6	36.2
D	30.4	34.1	35.8	37.9	40.6
E	n/a	37.4	36.3	38.4	40.8
F	30.2	35.2	37.2	40.5	40.9
IRL	n/a	n/a	32.2	32.1	n/a
I	29.0	34.0	40.2	42.3	43.5
L[3]	35.7	43.7	48.5	51.9	54.2[1]
NL	41.5	47.3	50.7	53.3	55.5
P	n/a	23.8	24.9	28.0	27.3[1]
UK	36.8	41.8	46.4	51.0	57.1
A	n/a	n/a	36.6	39.5	41.2
FIN	n/a	32.1	33.4	36.1	35.7
S	42.1[2]	45.5[2]	48.51[2]	51.6	55.1

[1] 1992
[2] National data.
[3] Number of employees.
Source: Eurostat, National Accounts

On the other hand the share of market services in the United Kingdom have risen with more than 50%, and market services in the UK constitutes now the largest relative share, cf. table 1.1.

There seems to be no correlation between the growth rates and the initial size of market services. For instance did Italy, the Netherlands and Sweden experience the same absolute increase in the share of market services although they were in rather different situations at the beginning of the period.

These data however do not consider the fact that for instance the public sector in the European countries have developed differently. In Denmark the relatively small sector of market services is influenced by the relative large public sector.

1.3 Gross value added 1970-1993

Also when measured by gross value added at factor costs, market services' share of total economy has increased rapidly. Actually, market services is more important in the total economy when value added instead of employment is considered, cf. table 1.2.

In 1990, market services comprised more than 40% in all countries for which data were available, and in eight Member States the share had actually risen to more than 50%, cf. table 1.2.

Table 1.2: Share of market services in total economy by gross value added (factor costs) 1970-93

Country	1970	1980	1985	1990	1993
B	43.0	47.3	50.7	53.7	56.1
DK	43.8	42.9	44.6	46.4	46.8
D	35.6	41.9	44.8	46.6	50.1[1]
GR	39.0	37.8	37.3	39.6	44.8
E	37.5	42.3	44.0	44.6	48.8
F	40.4	44.2	46.4	49.7	50.8[1]
IRL	35.4	37.6	38.0	41.8	42.4
I	40.1	44.1	48.2	50.5	52.8
L	33.4	46.6	57.7	54.6	59.9[2]
NL	43.5	48.8	50.4	55.2	58.2
P	n/a	38.8	40.0	41.2	n/a
UK	40.9	41.4	43.6	49.8	53.8
A	n/a	n/a	n/a	n/a	n/a
FIN	n/a	35.2	37.0	39.3	42.5
S	45.4	50.5	52.1	54.6	60.0

[1] Gross value added at market prices
[2] Estimated from national data
[3] National data
Source: Eurostat, National Accounts

As was the case with the share of employment, the correlation between growth in and initial size of market services is not straightforward. In 1990 three of the four countries which in 1970 had the relatively largest sectors of market services also were in the lead. But Denmark which in 1970 had the second largest market services sectors experienced the smallest growth of all countries in the period, and market services in 1993 in Denmark is smaller than in most other countries, cf. table 1.2.

This situation is repeated when looking at the countries with the smallest sectors of market services in 1970. Luxembourg experienced the highest absolute and relative growth of all Member States and in 1990 market services in Luxembourg relatively, is one of the largest, namely due to the substantial growth in the financial sector, cf. table 1.2. Ireland, for which market services in 1970 constituted a relatively small share of total economy had in 1990 the smallest sector of all Member States.

It can be concluded, that in 1990 market services was the most important sector in the European economy, and as the growth of the sector has continued after 1990, this position has been further strengthened in the first years of the 1990'es.

1.4 The subsectors of market services

As mentioned in the introduction, this publication contains analysis of the subsectors audiovisual services, hotels and travel agencies, air transport, transport by railways and freight transport by road based on the pilot surveys carried out by the Member States and Eurostat. As these subsectors are not normally surveyed in many countries, it is not possible to disaggregate the national accounts data to such a detailed level.

In this section market services is broken down to the most detailed level at which country comparisons is possible: (distributive) trade (NACE, rev.1 51 and 52), Hotels, restaurants and communications (NACE 55 and 64), Transport (NACE 60-63), Finance (NACE 65-67) and Other market services, including audiovisual services. Other market services is primarily business services which have been the fastest growing part of the European economy for several years[2].

1.4.1 Number of persons employed

Measured by the number of persons employed the two most important sectors in market services are (distributive) Trade and Other market services, as they constitute the two biggest subsectors in all Member States with only a few percentages in difference, cf. table 1.3. This pattern is broken in the Southern part of Europe, Spain and Portugal where the Trade sector is considerably larger than Other

[2] Eurostat: Business Services in Europe, Eurostat 1995.

market services. The reverse pattern can be observed in the Netherlands where Other market services exceeds Trade with more than 6 percentages points.

Transport is one of the sectors, which will be examined in details by the results of the pilot survey in a following chapter in this publication. In the countries where it has been possible to isolate transport from Hotels etc., transport's share of the total economy variates between 2.9% in Portugal and 5.4% in Denmark, cf. table 1.3. In the majority of countries the transport sector constitutes between 4.5% and 5.4% of the total economy.

Table 1.3: No. of persons employed in market services, by sector (% of total economy) 1992

Country	Trade	HORECA and communication	Transport	Finance	Other market services
	Sectors in market services				
B	**16.1**	4.8	4.5	3.8	19.6
DK	**12.2**	3.8	5.4	4.0	10.4
D	**15.0**	------ 8.9[1] ------		3.2	12.6
GR	n/a	n/a	n/a	n/a	n/a
E	16.3	7.6	4.4	2.5	9.3
F	14.2	5.4	3.8	2.8	14.7
IRL[2]	13.5	7.0	3.4	3.5	4.9
I	17.4	5.5	5.1	1.9	13.3
L[2,3]	15.4	----- 11.4[1] ------		10.0	16.8
NL	18.0	----- 9.5 ------		3.5	24.0
P[2]	14.4	4.7	2.9	1.7	6.7
UK[2]	16.5	10.9	4.0	4.1	16.8
A	15.2	------ 17.1 -------		3.3	5.3
FIN	13.1	4.9	5.4	2.7	9.3
S	18.0	----- 13.2[1] ------		3.2	19.7

[1] Estimation: market services minus distributive trades minus financial services minus other market services.
[2] 1991
[3] Number of employees

Source: Eurostat, National Accounts

1.4.2 Gross value added

Measured by gross value added at factor costs, the importance of the different subsectors in market services changes.
Gross value added in Other market services is - except for two countries - larger than the other sectors, and the difference to the second most important sector, distributive trade, is mostly considerable, cf. table 1.4. In the Netherlands and Germany value added in other market services even exceed the total of the four other subsectors.

Table 1.4: Gross value added (factor costs) by sector (% of total economy) 1993

Country	Trade	HORECA and communication	Transport	Finance	Other market services
	sectors in market services				
B	16.2	5.5	7.8	4.9	21.7
DK	13.6	3.5	7.2	1.8	20.6
D[1]	10.8	3.7	3.4	5.0	26.2
GR	13.7	------- 7.0 -------		3.0	21.1
E[1]	15.5	10.4	4.2	7.7	16.9
F[1]	12.4	5.5	4.2	4.2	23.9
IRL	10.6	------- 8.1 -------		8.0	15.5
I	15.9	5.0	5.9	5.2	20.7
L[1]	15.9	2.8	10.4	14.7	14.1
NL	13.4	4.4	5.3	5.1	30.0
P[1]	14.2	6.7	4.9	7.4	9.2
UK	12.0	5.4	5.5	6.5	24.4
A	n/a	n/a	n/a	n/a	n/a
FIN	9.3	4.1	6.3	4.1	18.6
S[2]	8.3	4.3	6.1	4.1	16.5

[1] 1991 data
[2] Gross value added at market prices
Source: Eurostat, National Accounts

In the countries in which Transport can be separated, the share of Transport in total economy differs between 3.4% in Germany and 10.4% in Luxembourg, cf. table 1.4. Overall, the transport sector shows the largest share of the total economy in the Northern European countries.

EU pilot on

Audiovisual services

2.1 Introduction

In view of recent developments characterised by changing the modern national economies into information, leisure and media societies, great importance is attached to the audiovisual sector. Its growth poten-tial is judged to be considerable, and it is obvious that in particular private radio and television enterprises have seen a substantial increase, due to the fact that a considerable number of such enterprises have been authorised in many countries in the past few years as a consequence of the ongoing deregulation of this sector. Other enterprises producing televisual works or trading film rights can benefit indirectly from that trend.

2.1.1 Methods and definitions

In most EU countries, the audiovisual sector is not included in regular enterprise-based surveys. Nevertheless, in many cases some information is available either from register-based business statistics, e.g. VAT registers (Denmark and Sweden), or from cross-sector surveys providing for various sectors of the economy some basic data without detailed breakdown, e.g. turnover or employment. In addition, some countries include particularly the cinema sector in special surveys. However, the collected data are in many cases relevant for cultural- rather than economic statistics (e.g. attendance to cinemas, number of seats and screens, entrance fees, etc.). For most countries, the pilot survey type of enterprise approach was therefore rather new.

The population to be surveyed consisted of the enterprises whose principal or sole activity was one of the following according to NACE Rev. 1:

- Radio and television activities (92.20). The turnover of Radio and television activities mainly consists of public licence fees and advertising receipts. As for pay TV channels the main part of turnover comes from subscribers.

- Motion picture and video production (92.11). The enterprises belonging to this subsector often specialise in the production of either televisual works, motion pictures, or advertising and institutional films. In the last few years especially the production of televisual works has been of increasing importance.

- Motion picture and video distribution (92.12). In Motion picture and video distribution three activities can be distinguished: motion picture distribution services, video tape distribution services and purchasing of rights enterprises. Video tape libraries do not belong to this subsector.

- Motion picture projection (92.13). The cinema projection subsector has changed in recent years as so-called multiplex-cinemas have been established. Turnover in this subsector is characterised by "box office" receipts, advertising receipts and sales of sweets, drinks, ice-cream, etc.

A model questionnaire was developed for the purposes of the pilot study. This questionnaire covered the following variables:

- general characteristics (e. g. legal status, year of business start-up)
- main activity
- operating incomes and operating costs
- breakdown of turnover
- breakdown of purchases of goods and services
- exports and imports
- fixed production (self-produced tangible and intangible investments)
- investments (tangible and intangible)
- employment.

The questionnaire was characterised by a detailed breakdown of the variables 'turnover' and 'purchases of goods and services'. A special concept was also included for the variable 'employment'. Regarding other variables, the questionnaire comprised a specific breakdown for the audiovisual sector, too.

The Methodological Manual of Statistics on Service Enterprises served as a reference framework for the study. In addition, explanatory notes on variables specifically used in the branch of audiovisuals were available. In line with the Methodological Manual all Member States chose the enterprises to serve as survey units. This was necessary in view of the list of variables as, in principle, only enterprises have at their disposal the account data required for answering the detailed questions on the breakdown of turnover and the breakdown of purchases of goods and services. Generally speaking, taking the enterprise as a unit of observation and description did not cause great problems for the statistical institutes and the respondents in carrying out the survey.

2.1.2 Participation and forms of conduct

All EU Member States participated in the pilot survey of audiovisual services. Some of them carried out independent surveys while others (e. g. France) integrated the pilot study into existing surveys. The basis for Finland's and Sweden's contributions to the pilot study were the results of a pilot survey of audiovisual services carried out in Finland in 1992 incl. other sources and an existing source in Sweden.

In some Member States, the survey was conducted in the form of a sample survey, in others as an exhaustive survey. Depending on the situation prevailing in the individual countries, mixed forms of surveys were used as well. In the majority of participating countries questionnaires were mailed to the enterprises, sometimes followed by telephone or personal interviews if mail was not successful. For Greece the survey was conducted by specially trained staff from the statistical office interviewing accountants from the enterprises in the respective branches. While in some Member States the survey was conducted on a voluntary basis, in others the questions to enterprises were compulsory. In general, existing registers of the national statistical offices could serve to obtain the addresses of the enterprises and, if required, to draw a sample. However, in Germany and Greece other sampling frames had to be used. Though for various reasons, some countries having at their disposal registers of the above type also seemed to face problems in gaining exact information about the survey population.

According to the contract regulations, the participating countries should survey a sample within the audiovisual service sector of 600 or 1 200 enterprises depending on the size of the Member State.

Generally the national pilot surveys were carried out in 1993 covering the reference year 1992 but some exceptions have occurred.

The above short remarks show clearly that the framework conditions under which the pilot survey was conducted in the countries differed widely. The priorities the countries set in achieving the individual objectives of the study partly differed too. Thus, for instance, some countries participating in the study concentrated particularly on examining methodological issues, i.e. on evaluating and testing the questionnaire, the methodology and definitions proposed by Eurostat. An important aim of some other countries was to check the quality of the register used in the survey, while others focused on gaining quantitative information. This situation has affected the comparability of the quantitative results of the pilot study. Problems will arise particularly for the comparison with other sectors of the same national economy and for the international comparison of the audiovisual sector.

Another aspect influencing the interpretation of data in this area is the government impact through the political framework conditions (e.g. market access, forms of regulation or restrictions, promotion, financing, programme content) and government financial support for the audiovisual sector. These framework conditions, which are set by the governments of the individual countries especially for Radio and television activities, probably have a considerable impact on the number of enterprises and on the major economic variables. Since these framework conditions differ greatly among the countries, the international comparability of quantitative data in this subsector can be limited. A similar, though less complicated, situation will be found in the area of Motion picture production, which is considerably influenced by the governments through many different forms of financial and other support.

2.2 Quantitative results

In the following, the audiovisual sector will be briefly described on the basis of some general variables using grossed or total results from the pilot study or from other sources which are available in 12 out of 15 EU-countries. Grossed or total results were not available for Belgium, Germany and Italy. The reasons were low response rates (Belgium) and missing registers so that the total population of enterprises in this sector is unknown (Germany).

The following description obviously only refers to those countries for which grossed up or total data from the Pilot study or other sources are available. In text and tables the totals of these countries is then referred to as Total.
When analysing the data it is very important to bear in mind that all existing data were used even if the

contents were *not completely* matching. Therefore the general notes should be considered thoroughly. Furthermore, international comparison of the data should be made with some restrictions.

Because of confidentiality no data from Radio and television activities in Austria can be published. No data for distribution and frequently no data for Radio and television activities are given for Ireland. Data about distribution and projection for the United Kingdom and Finland are condensed. Therefore it is often not possible to aggregate data on an overall level. Furthermore, the data concerning the United Kingdom are results from the pilot survey grossed up based on the old UK VAT register which was the most accurate data source at the time of sample selection. The problem is that information directly obtained from the Inter Department Business Register (IDBR) shows some fundamental differences for comparable variables like number of enterprises and turnover. Preliminary work in CSO would suggest that estimates using the old register are considerably in excess of those on the new. If this is confirmed, this has implications for the quality of aggregate results.

2.2.1 Number of enterprises

In the ten participating Member States with complete data there are almost 22 000 enterprises in the audiovisual sector and half of them are allotted to Motion picture and video production (NACE 92.11), cf. table 2.1. In all countries except for Greece, Portugal and the United Kingdom the major part of the enterprises concerned are classified under this subsector too.

It should be noted that the number of enterprises in this subsector is influenced by temporary enterprises set up specifically for the duration of a given film project and by micro enterprises often not producing any film during a year. Thus the fluctuation of enterprises (births and deaths) can be relatively significant.

Measured by number of enterprises, Radio and television activities (NACE 92.20) is the second largest subsector within audiovisuals. The subsector contains nearly one third of the total number of enterprises in the participating Member States and it consists of a few large nation-wide TV enterprises dominating the market. In addition, each country has a largely differing number of (mainly local) radio stations. This number is especially outstanding in the United Kingdom, Greece and Portugal and in these countries Radio and television activities is the most important subsector within audiovisuals measured by the number of enterprises.

In the countries with separate figures for all subsectors in audiovisuals, the smallest subsector is Motion picture and video distribution (NACE 92.12). The only exceptions are Luxembourg and Sweden, but in Sweden films for rent are part of the distribution subsector.

Table 2.1: Number of enterprises, 1992

eurostat

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK	389	794	65	309	1 557
GR	543	118	10	221	892
E	507	1 286	336	646	2 774
F	876	2 370	189	686	4 121
L	18	70	9	7	104
NL	110	2 611	40	144	2 905
P	93	83	35	69	280
FIN	124	353	--- 114 -----		591
S	93	955	529	160	1 737
UK	4 353	2 436	--- 200 -----		6 989
Total(10)	**7 106**	**11 076**	**--- 3 769 -----**		**21 951**
IRL	22	83	n/a	79	n/a
A	n/a	296	25	184	n/a
Total	**n/a**	**11 455**	**---- n/a -----**		**n/a**

Data from Finland and the United Kingdom concerning NACE 92.12 and 92.13, are combined in all tables. All UK data are grossed up based on the old VAT register. The Swedish data concerns Standardised Classification of all Economic Activities, 1969. In the Swedish data films for rent, which are not part of audiovisuals, are included in "motion picture and video distribution".
Greek data concerning NACE 92.11 and 92.12 are from the region of Attica.

The majority of enterprises active in audiovisuals are located in the United Kingdom and France. These two countries cover about 50% of all enterprises in audiovisuals in the participating Member States. The Netherlands have 13% of all enterprises in audiovisuals but nearly 24% of the production enterprises. Measured by the number of production enterprises, the Netherlands therefore are the most important country as far as production of motion picture and video production is concerned.

2.2.2 Number of persons employed

There are more than 250 000 persons employed[1] in audiovisuals in the nine Member States with complete data and 60% are working in Radio and television activities, cf. table 2.2. Therefore this subsector is the most important in audiovisuals measured by number of persons employed, even though the number of enterprises is higher in Motion picture and video production (hereafter Production). The reason is that the Radio and television activities is dominated by one or few large nation-wide TV enterprises.

In all countries 50% or more of the persons employed are working in Radio and television activities. In France and the Netherlands only 50% are employed in this subsector. On the other hand in Finland, Greece and Portugal approximately 80% of the total employment in audiovisuals are employed in Radio and television activities.

Totally almost a quarter of the persons employed are working within Production. This subsector therefore is the second largest in audiovisuals as far as the number of persons employed is concerned, cf. table 2.2. Also in most of the individual countries in the pilot survey, Production is the second largest subsector. The only exception from this pattern is Portugal where Motion picture and video projection (hereafter Projection) is larger than Production. Therefore in general, Production contains relatively many but small enterprises.

Table 2.2: Number of persons employed, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK	5 832	1 528	212	1 335	8 907
GR	7 440	1 053	254	654	9 401
E	24 338	8 695	1 235	4 321	38 589
F	27 936	21 004	988	6 172	56 100
NL	9 660	7 530	490	1 350	19 030
P	6 234	538	137	950	7 859
FIN[1]	5 876	706	---- 443 ----		7 025
S	6 624	1 756	830	1 697	10 907
UK[2]	58 246	18 316	--- 17 947 ---		94 509
Total(9)	**152 186**	**61 126**	**--- 39 015 ---**		**252 327**
IRL	2 646	353	n/a	677	n/a
A	n/a	1 491	125	1 631	n/a
Total	**n/a**	**62 970**	**---- n/a ----**		**n/a**

See table 2.1 for general notes.

[1] Full-time equivalent (average 1992).
[2] Number of permanently employed persons.

In all countries where this distinction is possible Motion picture and video distribution (hereafter Distribution) is the smallest subsector within audiovisual services, measured by number of persons employed.

More than one third of the persons employed in audiovisual services in the participating Member States are employed in the United Kingdom, cf. table 2.2. France and Spain follow with shares of 1/5 and 1/6. Altogether nearly 3/4 of the number of persons employed in audiovisuals are working in these three countries. This is not surprising considering the country size of the eight other Member States in this survey.

2.2.3 Number of employees

In the 9 participating Member States with complete data 261 000 are working as employees[2]. And in

[1] For the statistical coverage of the labour factor in the audiovisual sector, one problem should particularly be emphasised. Persons who take part in the production of a motion picture or televisual work may do this either as self-employed persons, under an employment contract (wage and salary earners) or as a freelancer on a fee basis. In addition, at least some persons seem to participate in projects without any financial compensation just out of interest or to learn, e.g. as volunteers in radio and television activities, while in other countries similar activities are performed by wage and salary earners. This has an impact firstly on the total number of persons employed, as freelancers are not part of the persons employed, and secondly on the structure of the operating costs of an enterprise, because payments made to freelancers are part of purchases of services, and not registered as wage and salaries, which, in turn, has an effect on the gross value added of the individual enterprise.

[2] Figures on number of employees for UK are not comparable with the figures of UK on persons employed. The data on number of persons employed concern only persons with permanent employment at a fixed time of the year. On the other hand, the number of employees are based on the average number of employees during one year and the variable

general this pattern does not differ from the number of persons employed, why the same considerations are valid for number of employees as well.

Table 2.3: Number of employees, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projection (92.13)	Total
DK	5 821	1 440	211	1 254	8 726
GR	6 368	842	245	366	7 821
E	24 198	8 281	1 132	4 022	37 633
F	27 499	18 913	855	5 677	52 944
L[3]	586	106	9	46	747
NL	8 070	6 240	490	1 310	16 110
P	5 780	464	120	901	7 265
FIN[1]	5 865	610	---- 397 ----		6 872
UK[2]	70 752	31 910	---- 20 447 ----		123 109
Total(9)	**154 939**	**68 806**	**---- 37 482 ----**		**261 227**
IRL	n/a	323	n/a	608	n/a
A	n/a	1 246	117	1 492	n/a
Total	**n/a**	**70 375**	**---- n/a ----**		**n/a**

See table 2.1 for general notes.

[1] Full-time equivalent (average 1992).
[2] Average number of employees 1992.
[3] Number of permanent employees.

In all countries with complete data most employees are working in the subsector Radio and television activities followed by Production, cf. table 2.3. The only exception is Portugal where projection is larger than the production subsector. In all Member States for which separate figures are available Distribution is the smallest subsector in audiovisual services.

Most of the employees in the participating countries for which complete data are available are working in the UK, followed by France and Spain. Together these 3 countries employ 80% of the total number of employees. This result is valid also for all subsectors where seperate data are available.

also includes temporary employed persons. This has also an impact on the aggregate figures.

2.2.4 Employment per enterprise

In this section the size of the enterprises in the different countries and subsectors of audiovisuals will be examined. This will be done by looking at the number of persons employed compared to the number of enterprises.

Analysing the audiovisual sector through ratios instead of absolute numbers, enables the comparison of the Member States, because the disturbing effects due to different country sizes is reduced.

In Portugal the enterprises in audiovisuals are significantly larger compared to the other Member States with complete data. On the other hand the smallest enterprises are placed in Denmark, cf. table 2.4.

Table 2.4: Number of persons employed per enterprises, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projection (92.13)	Total
DK	15.0	1.9	3.3	4.3	5.7
GR	13.7	8.9	25.4	3.0	10.5
E	48.0	6.8	3.7	6.7	13.9
F	31.9	8.9	5.2	9.0	13.6
L[3]	32.6	1.5	1.0	6.6	7.2
NL	87.8	2.9	12.3	9.4	6.6
P	67.0	6.5	3.9	13.8	28.1
FIN[1]	47.4	2.0	----- 3.9 -----		11.9
S	71.2	1.8	1.6	10.6	6.3
UK[2]	13.4	7.5	---- 89.7 -----		13.5
Total(10)	**21.5**	**5.5**	**---- 10.4 -----**		**11.5**
IRL	120.3	4.3	n/a	8.6	n/a
A	**n/a**	**5.0**	**5.0**	8.9	n/a
Total	**n/a**	**5.5**	**n/a**	**n/a**	**n/a**

See table 2.1 for general notes.

[1] Persons employed, full-time equivalent (average 1992).
[2] Number of permanently employed persons.
[3] Permanent employees.

In all countries for which data are available, except for the United Kingdom and Greece the largest enterprises are within Radio and television activities.

This can be explained by the fact, that this subsector is influenced by political determined framework conditions and therefore in most countries dominated by a few large nation wide TV enterprises.

In the other three audiovisual branches the number of persons employed per enterprise usually is less than 10, cf. table 2.4.

It is difficult to make any general conclusions concerning the size of the enterprises in audiovisuals in the Member States.

In countries like Denmark, the Netherlands, Finland and the United Kingdom the smallest enterprises on average are within Production. On the other hand in Spain, France, Luxembourg, Portugal and Sweden Distribution contain the smallest enterprises on average in audiovisuals. Only in Greece the smallest enterprises on average are situated in Projection, cf. table 2.4.

Although taking into consideration the previously mentioned reservations, there seems to be no correlation between size of the country and the size of the enterprises in audiovisuals.

2.2.5 Part-time employment

It is of no surprise that most part-time employees are working in France, considering that it is by far the largest of the countries for which data on part-time employment are available.

Unlike most other countries in the pilot survey, most of the part-time employees in the Danish audiovisual sector are working in Projection, cf. table 2.5. Also in Portugal relatively many of the part-time employees are working in this subsector.

Table 2.5: Number of part-time employees, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	522	126	9	1 107	1 764
GR	334	91	10	88	523
E	1 007	2 036	54	778	3 875
F	8 237	9 121	63	1 882	19 303
NL	1 979	2 294	44	968	5 285
P	192	34	14	229	469
S[2]	934	223	236	366	1 759
Total(7)	**13 205**	**13 925**	**430**	**5 418**	**32 978**
IRL	250	93	n/a	272	n/a
A	n/a	90	75	918	n/a
Total	n/a	**14 108**	n/a	**6 608**	n/a

See table 2.1 for general notes.

[1] Persons employed (part-time).
[2] Persons employed (part-time) 1990.

On the other hand relatively many of the part-time employees in Greece and Sweden are employed in Radio and television activities. In Spain, France and the Netherlands most of the part-time employees are working in Production. The distribution of part-time employment is very heterogeneous in the seven EU-countries for which complete data are available. The only common feature amongst the seven Member States, except Sweden, is that fewest of the part-time employees are working in Distribution. And the Swedish data include also films for rent in Distribution, although this activity is not part of audiovisuals and therefore Swedish figures cannot be compared completely with data from the other countries.

2.2.6 Part-time employment as share of total employment

Because of the different country sizes it can be of value to investigate the extent of part-time employees relative to the number of employees. In Portugal, Greece and also Spain the extent of part-time employment is almost neglectable and substantially lower than in the other participating Member States, cf. table 2.6.

In France and the Netherlands approximately one third of the number of employees in audiovisuals are working part-time.

In Projection and Production the extent of part-time employment is particularly high compared to the other subsectors in audiovisuals. In Production the large average figure is caused by France and to a lesser degree also the Netherlands, cf. table 2.6. In Projection in Denmark, nearly 90% of the employees are working part-time, but also in the Netherlands and Austria the vast majority are working part-time in this subsector.

Table 2.6: Number of part-time employees/number of employees (pct.), 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	9.0	8.8	4.3	88.3	20.2
GR	5.2	10.8	4.1	24.0	6.7
E	4.2	24.6	4.8	19.3	10.3
F	30.0	48.2	7.4	33.2	36.5
NL	24.5	36.8	9.0	73.9	32.8
P	3.3	7.3	11.7	25.4	6.5
Total(6)	**15.8**	**37.9**	**6.4**	**37.3**	**23.9**
IRL	n/a	28.8	n/a	44.7	n/a
A	n/a	7.2	64.1	61.5	n/a
Total	**n/a**	**36.8**	**n/a**	**39.9**	**n/a**

See table 2.1 for general notes.

[1] Persons employed (part-time).

2.2.7 Summary of demographic data

As a short summary from these demographic data the following can be concluded. Most enterprises are located in Production. These enterprises are however rather small, and the biggest enterprises are situated in Radio and television activities. The number of persons employed and employees are concentrated also in this subsector in audiovisuals, and the smallest subsector is Distribution. The ranking between Projection and Production varies, but in nine out of twelve countries Production is larger than Projection. The exceptions are Ireland, Austria and Portugal.

2.2.8 Turnover

Complete data about annual turnover covering all sub-sectors of audiovisuals are available for 10 Member States, and altogether an annual turnover of ECU 38 154 million was achieved in 1992, cf. table 2.7.

The highest turnover was obtained in Radio and television activities which as mentioned earlier is the subsector within audiovisuals with the largest enterprises measured by employment. On aggregate nearly 3/4 of the total turnover in the 10 EU Member States is generated in this subsector.

In Sweden Radio and television activities comprises relatively little (56%) of the turnover in audiovisuals. On the other hand this subsector is creating more than 80% of total turnover in Luxembourg, Finland and the United Kingdom.

On the overall level and usually also in the individual countries, Production is the second largest subsector with 6-17% of turnover, but in France and the Netherlands the share of Production in audiovisuals is higher than 25%.

The relative importance of Distribution and Projection varies, but in more than half the countries the two subsectors together generate less turnover than Production. Usually both subsectors together contribute with 10-15%, but in the United Kingdom and Luxembourg only 4% of the national turnover in audiovisuals are generated in the two smallest subsectors. On the other hand, in Sweden and Spain the two subsectors produce respectively 1/4 and 1/5 of annual turnover in audiovisuals, but it has to be born in mind that in Sweden films for rent are counted as part of Distribution.

Table 2.7: Turnover (mill. ECU), 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK	476.4	120.2	47.5	62.1	706.2
GR	304.2	70.7	14.5	24.9	414.3
E	2 385.5	586.0	454.5	297.5	3 723.6
F	5 563.2	2 478.4	451.0	550.7	9 043.4
L	420.4	26.1	16.7	3.1	466.3
NL	939.0	384.2	111.2	61.5	1 495.9
P	252.0	39.6	12.7	28.6	332.8
FIN	508.7	59.0	---- 59.8 -----		627.4
S	530.0	165.0	147.1	110.2	952.3
UK	16 707.6	2 840.5	--- 844.0 ----		20 392.1
Total(10)	**28 086.9**	**6 769.8**	**--- 3 297.6 ----**		**38 154.4**
IRL	180.5	19.8	n/a	24.9	n/a
A	n/a	184.5	26.4	60.8	n/a
Total	**n/a**	**6 974.0**	**---- n/a ----**		**n/a**

See table 2.1 for general notes.

As mentioned Radio and television activities also had the largest employment share. In order to compare the "productivity" of the different subsectors in audiovisuals, we then consider instead turnover per person employed. It turns out that the highest turnover per person employed usually is obtained in Distribution.

Thus Distribution seems to be most productive in the sense that turnover per person employed is higher than in the other subsectors. A better measure of efficiency or productivity however is gross value added per person employed, which will be used instead below.

2.2.9 Gross value added

Data on gross value added[3] are available only for ten countries in the EU, and only eight of these were able to provide complete data. The total gross value added in audiovisuals in these eight Member States was nearly 16 000 million ECU in 1992, cf. table 2.8. On average this correspond to 44% of total turnover and in most countries gross value added at market prices constitutes between 40% and 50% of total turnover.

Radio and television activities contribute with the largest part of gross value added in market prices. In almost all countries for which complete data are available, the share varies between 60% and 80%, cf. table 2.8. Only Luxembourg with 84% slightly differs from this general picture.

The second most important subsector in audiovisuals in these countries is Production. But because of the dominance of Radio and television activities, the subsector only makes up between 8% (Luxembourg) respectively 11% (Portugal) and 27% (France).

Table 2.8: Gross value added (mp) (mill. ECU), 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	250.6	56.0	22.2	27.2	356.0
GR	139.4	25.6	3.4	7.7	176.2
E	719.4	232.7	115.0	99.8	1 166.9
F	2 862.0	1 246.9	241.1	214.6	4 564.5
L	84.1	8.3	5.9	1.3	99.6
NL	436.1	196.1	50.6	38.7	721.4
P	250.1	35.9	10.0	18.9	314.9
UK	6 554.7	1 574.6	--- 399.6 ----		8 529.0
Total(8)	**11 296.5**	**3 376.1**	**--- 1 255.9 ----**		**15 928.4**
IRL	n/a	9.1	n/a	11.5	n/a
A	n/a	112.2	3.7	29.5	n/a
Total	**n/a**	**3 497.4**	**--- n/a ---**		**n/a**

See table 2.1 for general notes.

[1] Gross value added at factor costs.

[3] Gross value added at market prices is calculated by using the variables turnover, changes in stocks of goods and services, fixed production and purchases of goods and services. In the audiovisual sector a special problem arises for the variable purchases of goods and services. This problem of correctly covering the purchases of goods and services has to be considered in the context of correct coverage of intangible investments. After evaluating the national final reports, it seems that in the individual countries there are no general rules as to whether acquired film rights are treated as purchases, or evaluated as investments. Moreover, even within an enterprise there seem to be individual decisions in individual cases as to whether a specific film right is considered as intermediate consumption or intangible investment. Thus expenditure on film rights are a problem that has an impact particularly on the variable "intangible investments" or "purchase of goods and services", and thus indirectly on gross value added.

In Ireland Projection contributes more to gross value added than Production. In the other countries Production is more important in terms of gross value added than Distribution and Projection put together.

Comparing only Projection and Distribution both subsectors contribute approximately the same to gross value added in audiovisuals, except for Austria where gross value added in Projection is 8 times higher than in Distribution.

2.2.10 Labour costs

Altogether the amount of labour costs in the ten Member States was ECU 8 000 million, of which 5 870 million (73%) was related to Radio and television activities, cf. table 2.9.

Both on the overall level and in the different Member States except for Sweden, Radio and television activities and production makes up more than 90% of the total labour costs in audiovisuals, cf. table 2.9.

Labour costs are highest in Radio and television activities followed by Production and if separate figures are available by Projection. Radio and television activities contribute between 56% (France) and 91% (Portugal).

For comparisons the ratio labour costs per employee is more efficient than absolute figures, and in all countries except for France, this ratio is highest in Radio and television activities. In France labour costs per employee are highest in the distribution subsector of audiovisuals. The lowest costs per employee are usually in Projection while Production and Distribution costs are in between.

Because the extent of part-time employment in general was smaller in Radio and television activities, it cannot be concluded that the level of wages and salaries is higher in this subsector compared to the other.

Table 2.9: Labour costs (mill. ECU), 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK	217.2	34.6	3.7	12.2	267.8
GR	105.8	8.7	2.8	4.1	121.4
E	912.9	146.7	31.7	57.1	1 148.3
F	1 067.1	660.0	41.8	126.6	1 895.5
L	35.6	4.0	0.3	0.7	40.6
NL	307.7	100.2	13.6	16.7	438.3
P	123.9	5.9	1.3	5.7	136.8
FIN	217.7	19.8	----- 10.2 -----		247.6
S	298.2	54.0	21.0	30.8	404.0
UK	2 584.2	533.8	--- 183.4 ----		3 301.4
Total(10)	**5 870.3**	**1 567.7**	**--- 563.7 ----**		**8 001.7**
IRL	n/a	4.3	n/a	5.9	n/a
A	n/a	43.8	2.4	13.6	n/a
Total(12)	**n/a**	**1 615.7**	**--- n/a ----**		**n/a**

See table 2.1 for general notes.

Luxembourg, France and Finland show highest average labour costs per employee in the audiovisual sector. In Luxembourg the labour costs per employee are 54 350 ECU[4] in the other two countries approximately 36 000 ECU. On the other hand labour costs per employee in audiovisuals in Greece are only 15 500 ECU.

Also between the different subsectors in audiovisuals, there is a large variation in labour costs per employee. Radio and television activities in Luxembourg shows the highest labour costs per employee (60 750 ECU). The lowest labour costs per employee are found in the subsector of Projection in Portugal. Here labour costs per employee are 6 300 ECU.

[4] For Luxembourg the ratio labour costs per employee was calculated by using permanent employees as denominator. For the ohter countries the denominator usually includes both temporary and permanent employees. Figures for Luxembourg are therefore overestimated and not completely comparable with other countries.

2.2.11 Tangible investments

Tangible investments cover real estates, transport equipment and installation and equipment. Intangible investments like investments in motion pictures, in televisual or video works or in software are not included. In audiovisuals intangible investments are important and therefore it is problematic, that they have to be ignored, but there are some problems with the international comparability (see note on gross value added in section 2.2.9).

Complete investments data for all subsectors of audiovisuals concerning investments are available for 7 Member States. Unfortunately intangible investments are included in the Danish, Portuguese, and British data.

The total amount spent by audiovisual enterprises on investments in the seven Member States were ECU 1 270 million. Of that, ECU 810 million, or 64% were invested in Radio and television activities, while ECU 217 million (17%) were spent in the production subsector.

In all countries with almost complete figures, except for Denmark, investments in audiovisuals were highest in Radio and television activities. In Denmark more money was spent on investments in Production, namely 45% compared to 27% in Radio and television activities, probably due to the inclusion of intangible investments.

The largest investments in audiovisuals were in France, Spain and the United Kingdom. The investments in these three countries comprise almost 85% of the total investments in the seven EU Member States. France contributes most to the investments in Radio and television activities, while Spain dominates the other subsectors.

Table 2.10: Tangible investments (mill. ECU)[5], 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	6.3	10.4	4.6	2.0	23.3
GR	19.3	5.4	1.0	0.5	26.1
E	159.0	89.0	27.6	76.6	352.2
F	312.2	55.9	2.6	57.4	428.1
NL	42.6	11.4	1.8	5.7	61.5
P[1]	66.9	5.5	2.8	6.1	81.2
UK[1]	203.8	39.0	--- 54.7	----	297.4
Total(7)	**810.1**	**216.6**	**-- 243.3**	**----**	**1 270.0**
L	n/a	n/a	n/a	n/a	6.7
IRL	n/a	1.4	n/a	3.1	n/a
A	n/a	8.3	0.1	35.9	n/a
Total	**n/a**	**n/a**	**---- n/a**	**----**	**n/a**

See table 2.1 for general notes.

[1] Total of tangible and intangible investments.

2.2.12 Summary of economic figures

Before analysing some specific ratios of variables it can be concluded that in terms of turnover, gross value added, labour costs and tangible investments Radio and television activities is the most important within audiovisuals in all EU countries for which data are available.

In most cases this subsector makes up more than 50% of audiovisuals. In terms of turnover, gross value added and labour costs, Production is the second most important subsector, while Distribution and Projection stay behind in changing order. For investments no clear conclusion can be drawn on the ranking of the subsectors Production, Distribution and Projection.

2.2.13 Gross value added per person employed

Gross value added per person employed is an indicator of productivity, if value added is measured in factor costs. These conditions are not fulfilled in this survey since value added is measured in market

[5] The data concerning investments in Denmark, Portugal and the United Kingdom also contains intangible investments.

prices. In the following however, this will be disregarded, and therefore gross value added per person employed will be regarded as synonomous with productivity.

Table 2.11: GVA (mp)/ persons employed, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	42 977	36 623	104 496	20 375	39 963
GR	18 743	24 332	13 352	11 726	18 740
E	29 561	26 761	93 137	23 086	30 240
F	102 448	59 365	244 028	34 770	81 364
NL	45 143	26 037	103 170	28 655	37 907
P	40 117	66 857	73 002	19 842	40 070
UK[2]	112 536	85 969	---- 22 267 ---		90 245
Total(7)	**80 269**	**57 409**	**---- 34 641 ---**		**67 530**
IRL	n/a	25 695	n/a	16 946	n/a
A	n/a	75 245	29 424	18 091	n/a
Total	**n/a**	**57 663**	**---- n/a ---**		**n/a**

See table 2.1 for general notes.

[1] Gross value added at factor costs.
[2] Number of permanently persons employed.

Productivity in audiovisuals is highest in France (and the UK): gross value added per persons employed in these Member States varies between ECU 80 000 and ECU 90 000 respectively, cf. table 2.11. On the other side in Greece the productivity apparently is lower, because value added per person employed is less than 1/4 of the level in France. One reason of course is the overall lower price level in this country, underestimating value added[6].

In the four other participating Member States with almost complete figures, gross value added per person employed varies between ECU 30 000 and ECU 40 000.

Even though the variation in audiovisuals on an overall level seems to be rather high it is even larger in some subsectors. For example in Distribution gross value added per person employed in France is almost twenty times higher than in Greece. Also in Denmark and the Netherlands the productivity in Distribution is high, cf. table 2.11. But again the different price levels in the countries in this pilot survey should be considered when stating these conclusions.

Distribution is apparently the most productive subsector in audiovisuals. Except for Greece, in all other countries with separate figures for the four subsectors gross value added per person employed is highest in Distribution.

In all countries with separate figures except for Portugal, the Radio and television subsector is the second most efficient in audiovisuals.

On the other hand, gross value added per person employed in all but one country is lowest in Projection, cf. table 2.11. In this subsector the differences between the Member States are much lower than in the other three subsectors. The highest value of France (ECU 34 770) is only three times larger than the lowest value of Greece (ECU 11 726).

2.2.14 Labour costs/gross value added

The ratio labour costs/gross value added varies from 0.39 in the United Kingdom to 0.98 in Spain, cf. table 2.12. The data from Spain are strongly influenced by special circumstances in Radio and television activities.

Labour costs relative to gross value added can be interpreted as an indicator of the labour intensity in the production process. But labour costs, of course, overestimate labour intensity in sectors or branches in which the number of self-employed is particularly low, as for instance Radio and television activities.

[6] It would probably be more appropriate in stead of ordinary exchange rates to use the Purchasing Power Parities (PPP) when countries with fairly different price levels are compared. In principle this calculation uses the price of a fixed basket of goods to adjust exchange rates.

Table 2.12: Labour costs/GVA (market prices), 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	0.87	0.62	0.17	0.45	0.75
GR	0.76	0.34	0.81	0.54	0.69
E	1.27	0.63	0.28	0.57	0.98
F	0.37	0.53	0.17	0.59	0.42
L	0.42	0.48	0.05	0.54	0.41
NL	0.71	0.51	0.27	0.43	0.61
P	0.50	0.16	0.13	0.30	0.43
UK	0.39	0.34	---- 0.46	----	0.39
Total(8)	**0.47**	**0.44**	**---- 0.40**	**----**	**0.46**
IRL	n/a	0.48	n/a	0.52	n/a
A	n/a	0.39	0.66	0.46	n/a
Total	**n/a**	**0.44**	**---- n/a**	**----**	**n/a**

See table 2.1 for general notes.

[1] Gross value added at factor costs.

No clear conclusions can be drawn based on table 2.12, except that labour costs per unit of gross value added in most countries is lowest in the distribution subsector. In this subsector the payments to the other production factors including payments to the self-employed is highest.

In four countries the ratio of labour costs to gross value added is highest in Radio and television activities.

2.2.15 Tangible investments/labour costs

A high value of investments compared to labour costs indicates that the production process is rather capital intensive. But it has to be born in mind that investments in a given year is a poor measure given the longivity of investments. Therefore it would have been more appropriate to consider investments flows through a longer period of time which has not been possible in this once-off pilot survey.

The employment of the factor labour is measured here by the labour costs because the potential alternative variables, number of persons employed or number of employees, have many disadvantages, especially in areas with heterogeneous labour conditions like the subsectors of audiovisuals.

The relation between tangible investments and labour costs varies considerably from country to country and also between the different subsectors within audiovisuals.

The ratio investments/labour costs is lowest (0.09) in the United Kingdom and Denmark (in Denmark the ratio in principle is even smaller because the intangible investments are included too), cf. table 2.13. In Portugal the ratio is 0.59 implying a much higher level of investments, which is valid for almost all sub-sectors in audiovisuals.

Table 2.13: Tangible investments/labour costs, 1992

Country	Radio/ television activities (92.20)	Motion picture/ video prod. (92.11)	Motion picture/ video distrib. (92.12)	Motion picture projec tion (92.13)	Total
DK[1]	0.03	0.30	1.23	0.16	0.09
GR	0.18	0.62	0.35	0.11	0.22
E	0.17	0.61	0.87	1.34	0.31
F	0.29	0.08	0.06	0.45	0.23
NL	0.14	0.11	0.13	0.34	0.14
P[1]	0.54	0.93	2.17	1.07	0.59
UK[1]	0.08	0.07	----	0.30 ----	0.09
Total(7)	**0.15**	**0.15**	**----**	**0.49 ----**	**0.17**
L	n/a	n/a	n/a	n/a	0.17
IRL	n/a	0.31	n/a	0.52	n/a
A	n/a	0.19	0.05	2.64	n/a
Total	**n/a**	**0.15**	**n/a**	**n/a**	**n/a**

See table 2.1 for general notes.

[1] Total of tangible and intangible investments.

In many countries Projection, compared with the other subsectors in audiovisuals, demands most invest-ments. But also Distribution has high investments compared to labour costs. Only in Greece another subsector demands more investments per unit of labour costs, namely Production.

EU pilot on

Hotels and Travel agencies

3.1 Introduction

Hotels and travel agencies play an important role in the market services, and its growing importance has led to increased attention in this sector.

The growing focus has on the other hand revealed that sufficient statistical data in this area does not exist. Therefore a increased demand for statistical information concerning both the economic performance and the definitions of the constituting structural features of this sector has emerged. The last part is very important if consistent data between different countries should be compared.

The pilot surveys concerning the Hotel subsector and Travel agencies should be considered in this light, and their aims were partly gathering of statistical data partly to apply and successively develop the leading Methodological Manual on service enterprises defined by Eurostat.

3.1.1 Methods and definitions

The hotel subsector and travel agencies have been covered very differently in the various EU Member States.

The absence of enterprise registers for some of the subsectors of HORECA/TA led to the implementation of sample surveys based on existing registers for the hotel sector and travel agencies only. These data have been raised to universe levels.

The population to be surveyed consisted therefore of the enterprises whose principal or sole activity was one of the following according to NACE Rev.1 (in brackets):

- Hotels and similar establishments (NACE-class: 55.1). The hotel sector is divided into hotels with restaurant (55.11) and hotels without restaurant (55.12). Therefore all statistical units whose main activity is to provide accommodation and related services or, according to Horeca/Ta manual, "which are in the business of offering collective shelter" have been included.
- Travel agencies and tour operators activity (63.30) is a special class of NACE group 63.3, concerning activities of travel agencies, tour operators and tourist assistance activities such as tourist information and tourist guide activities. Travel agencies offer "services to clients (reservations, ticketing, etc.) and act as agents for enterprises (transport, accommodation, etc.), all offered separately on the market; they book and market the full range of tourist industry products across the multiplicity of producer firms and to breadth of the market and playing a full production role".

The model questionnaire, defined for the objectives of the pilot survey, has been developed according to national requirements, considering the specific national features of the hotel and travel agency sub-sectors.

According to the Methodological Manual, Horeca/Ta chapter, the enterprise is the most important statistical unit in the sector. Furthermore the enterprise is the only relevant statistical unit if account data are required.

However the Methodological Manual also underlines the importance of the local units in gathering particular variables.

Therefore two different questionnaires were proposed by Eurostat for data collection in the hotel subsector and one questionnaire in the travel agency subsector.

The questionnaire on hotel enterprises covered the following variables:

- general characteristics of the enterprise (e.g. legal status, year of business start-up)
- main activity of the enterprise
- operating income and operating costs[1].
- breakdown of turnover and purchases of goods and services
- export and imports
- fixed production
- investments
- employment

The questionnaire on local units has the aim of gathering specific information on the structural

[1] Income, turnover, costs, labour costs, goods and services expenses, stocks of goods.

characteristics of the activity of the single establishment and it is divided into the following sections:

- general characteristics of the local unit and the ownership of premises
- co-operation with other enterprises
- capacity
- installations and facilities
- prices

There is only one questionnaire for the travel agencies though travel agencies and tour operators activities are different. The questionnaire for this sector was similar to the one used for hotel enterprises.

3.1.2 Participation and forms of conduct

All EU Member States, except Finland participated in the pilot survey of the hotels and travel agencies. In every participating Member State, except Belgium, the survey was carried out by the National Statistical Institute under contract to Eurostat.

Many countries defined the survey as a completely independent one, especially in the case of travel agencies. The data required for hotels are mainly collected using existing statistical information. The list of the participating countries and the level of the information already available are summarised in table 3.A.

Table 3.A: The participating countries and availability of statistical data

Country	New surveys		Existing data	
	Hotel sector	Travel agencies	Hotel sector	Travel agencies
B	YES	YES	n/a	n/a
DK	YES	YES	Enterprises, accomm.	Trips sold by length and value
D		YES	local units, employment labour cost	NO(8)
GR	YES(1)	YES(1)	Monthly data	NO
E	YES(7)	YES	YES	NO
F	-		YES	YES
IRL	(4)	(4)	Enterprises, employment	Enterprises, employment
I	YES	YES	Enterprises, rooms, category	Enterprises, rooms, category
L	(5)	YES(6)	Enterprises, Employment turnover	Enterprises, Employment turnover
NL	YES	(3)	YES	YES
A	YES	YES	Employment turnover (2)	Employment turnover (2)
P	YES	YES	Employees, labour costs, turnover	Employees, labour costs, turnover
S	-	YES	Turnover, employment accomm.	Turnover, employment
UK	YES	YES	Turnover, labour costs, stocks, accomm.	Turnover, labour costs, purchases of goods-serv.

1 Part of the Greek plan for the development of regional statistics;

2 Five-yearly intervals full survey;

3 Survey included in regular National surveys. Travel agencies is part of the universe of statistical units which are interviewed for National purposes; and the pilot survey was mainly carried out using existing survey;

4 Survey carried out as part of the Statutory Annual Service Inquiries which CSO undertakes each year;

5 Survey carried out as part of the standard survey on HORECA sector for 1991;

6 This survey took the form of a Census;

7 Survey conducted as a part of regular production statistics on HORECA sector.

8 The only available data comes from the 1987 Census and from a voluntary four-yearly survey on structural costs.

Sweden and Germany carried out a pilot survey for travel agencies only, since the hotel subsector was adequately covered by existing statistics.

In the Netherlands the survey was conducted within the system of annual production statistics of Statistics Netherlands. The pilot surveys therefore were carried out to complete the information needed. Furthermore the CBS pilot survey concerning the hotels was under the old activity classification SBI-1974, class 6741 (Standard Classification of Industrial Activities).

France defined a double questionnaire, composed by one general framework in respect to the exhaustive survey, and by a restricted questionnaire for the sample survey. Both were carried out as part of the annual enterprises surveys.

Luxembourg sent out a special questionnaire to travel agencies and airline offices and conducted the survey in the form of a census.

In Greece, the pilot survey concerning the hotel subsector has been carried out as part of the Greek Action Plan for the development of response statistics, covering local units rather than enterprises.

The pilot survey for Italy refers to both subsectors. It takes the form of a sample survey involving local units too. Moreover, it is linked to the annual standard inquiry on enterprises which only indirectly refer to the Central Business Register[2].

In Ireland the pilot survey on hotels and travel agencies has been carried out as part of the Statutory Annual Service Inquires. The inquiry concerning travel agencies refers to 1992 as statistical year and is conducted as a census of all enterprises from the 1988 census of services frame.

In Austria a new pilot survey was conducted, although inquiries both at the enterprise and local unit levels were already available.

Answering questionnaires is a statutory requirement in all Member States with the exception of United Kingdom, Denmark, Austria and Germany.

The response rate varies both between countries and between subsectors. In the hotel subsector the number of filled questionnaires ranges from 79% in Spain to 48% in Denmark. In practice, the number of valid responses is reduced by the number of questionnaires with incorrect answers. In fact, the effective sample (calculated without the non accepted responses) is in all countries about 50% less than the original sample.

Difficulties were encountered by some countries in determining the reference universe, as only a few of them have business registers with full coverage of all enterprises. The sources from which the reference statistical unit is extracted differ among the various countries.

The choice of the reference statistical unit and the corresponding classification method is strictly conditional to the existence and structure of existing statistical sources for service activities. The General Framework provides a systematic grouping distinguishing:

i. official source of statistical information;
ii. non-official source of statistical information;
iii. Registers and lists of production units.

The first group includes Luxembourg (travel agencies only) and Ireland. The survey in Luxembourg takes the form of a census and it is carried out using the National Administrative Registers (TVA) as the basic source. In Ireland, the source used for extracting the sample is the 1987 census of businesses for both the hotel sector and travel agencies

The use of non-statistical sources is adopted in Italy and Greece. In Greece, the reference universe for the hotel sector is the Registers of the Chambers of Hotels (1992) and the Registers kept by the Tourism Statistics Division which are more updated than the Company Census Register of 1988. The 1992 Olympic Airways Register has been used in travel agencies. In Italy the annual directory "Hotels in Italy", supplemented with the information from other sources were used concerning the hotel subsector. In travel agencies the official list published by the Ministry of Tourism and Entertainment has been used as the basic source.

Denmark, France, Portugal, Great Britain, Netherlands and Spain used the Central Business Register of Enterprises as the sampling frame for the pilot survey.

The coverage of activities were different in the various Member States.

In Austria, the current updated Register of Enterprise and Establishment has been used as the basis, and the

[2] At the time the pilot survey were carried out, 1991 Census data were not available. The existing Enterprise Register (SIRIO) was only inclusive of those statistical units employing at least ten employees. As a consequence, a more updated register, coming from existing surveys on local units and sussessively updated with the Public Tourism Policy Authority register "Hotels in Italy", bas been chosen as the reference register for the sample survey. Successively when 1991 Census results have been available, two independent entterprise surveys have been designed and undertaken (regarding those statistical units including until 19 employees and 20 or more employees, respectively). The results for Italy are, only successively, made completely coherent with enterprise results and can therefore be considered as a complementary inquiry to the annual standard survey on enterprises.

hotels in the basic population in the Östat Register has previously been classified according to NACE Rev.1.

Ireland and Spain had to adapt their internal registers for the hotel subsector and travel agencies to NACE standard in order to carry out the pilot surveys. In Ireland, returns are coded to NACE Rev.1 to enable production of NACE based results in the future.

Denmark, Luxembourg and France directly followed NACE Rev.1, as they disposed registers fully consistent with NACE Rev.1 classification.

Also in Sweden the classification accuracy had been improved so that different activities within the travel agency subsector can be separately identified and are coherent with NACE standard. For the hotel subsector, Swedish Statistical Office refers to SNI 1969 (Standard Classification of all Economic Activities) and, in particular, to group 632, divided into the two subgroups, 63.201 for hotels and boarding houses and 63.302 for camping and other short stay accommodation.

In Portugal, the reference universe was FCEE, based on NACE/73 making it impossible to get a representative sample at NACE Rev.1 four digits level; therefore, no distinction was made between hotels with or without restaurant and between travel agencies and tour operators.

In Great Britain, businesses were classified according to their VAT code (VTC), based on the 1968 Standard Industrial Classification (SIC(68))[3]. Travel agencies were classified according to VTC 7092 and were sampled from a group also including, VTC 7091 (shipping agents and forwarding agents). They were consistent with NACE Rev.1 63.30 heading only.

The Netherlands referred to SBI 6741 standard and the survey was based on the old NACE system. The distinction between hotels with and without restaurant therefore had been taken from NACE and used in the questionnaires.

[3] Hotels are classified to VTC 8841 along with Motels and other residential establishments, which fall outside the scope of hotel sector as classified by Eurostat for the Pilot Survey. Hence, VTC 8841 includes the following NACE sectors: 55.11, 55.12, 55.23/3.

Table 3.B: The classification system

Country	The hotel sector		Travel agencies	
	Statistical unit	Classification system	Statistical unit	Classification system
B	E/L	Nace/Rev.1	E	Nace/Rev.1
DK	E/L	Nace/Rev.1	E	Nace/Rev.1
D	E/L	Nace/Rev.1	E	Nace/Rev.1
GR	L	Nace/Rev.1	L	Nace/Rev.1
E	E	Nace/Rev.1	E	Nace/Rev.1
F	E	Nace/Rev.1	E	Nace/Rev.1
IRL	E	Nace/Rev.1	E	Nace/Rev.1
I	L	Nace/Rev.1	L	Nace/Rev.1
L	E/L	Nace/Rev.	E/L	Nace/Rev.1
NL	E/L	SBI - 1974	E	Nace70=Sbi74
A	E/L	Nace/Rev.1	E	Nace/Rev.1
P	E/L	Cae (Nace/Rev.1)	E	Cae (Nace/Rev.1)
S	E/L	SNI - 1969	E	Nace/Rev.1
UK	E/L	VTC	E	VTC

E: Enterprise
L: Local unit

Greece and Italy follow NACE Rev.1 in both sub-sectors, in spite of the non statistical nature of the adopted registers.

The present chapter provides an analysis of the main pilot surveys results on hotels and travel agencies. They were carried out in 1993, with 1992 intended as the reference year for data collection but some exceptions have occurred.

3.2 Quantitative results

The aim of the following section is to investigate the structure of the hotel sector and travel agencies.

The data covers all participating countries except Belgium, Greece and Portugal (which did not provide raised data) and Ireland, whose data breakdown is not adequate to the purposes of the present report. The following description refer to those countries for which grossed up data are available.

Sample designs and reference statistical units are not completely homogenous between participating countries, cf. Table 3.B. Data quality for many variables should be very carefully considered: In some cases this is however not sufficient, and therefore data concerning these countries have been excluded. This constraint is particularly relevant for the breakdown of specific variables by employment size classes.

To improve the study of the hotel subsector, the breakdown of a subset of variables by employment size class is adopted but comparability problems may arise. The definition of the employment size classes are not homogeneous for all participating countries, since the number of employees on a part-time basis are not included in the size classes in all Member States.

The breakdown of the variables by employment size classes has not been adopted for travel agencies. This is due to the large inconsistency of the sample estimates.

3.2.1 Number of enterprises

Information concerning the number of enterprises in the hotel subsector and travel agencies are available for 9 Member States. Furthermore two countries were able to provide data on the hotel subsector alone. The hotel subsector consisted of almost 155 000 enterprises in 1992 in the 11 surveyed Member States, whereas close to 20 000 enterprises were operating in travel agencies in the 9 Member States for which data were available, cf. Table 3.1.

Table 3.1: Number of enterprises, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	1 256	327	1 583
E	10 983	2 613	13 596
F	29 332	2 569	31 901
I[1]	35 371	5 679	41 050
L	304	78	382
NL	1 918	1 538	3 456
A	18 913	722	19 635
S	1 801	976	2 777
UK	12 571	5 302	17 873
Total (9)	**112 449**	**19 804**	**132 253**
D	35 303	n/a	n/a
GR[1]	6 857	n/a	n/a
Total	**154 609**	**n/a**	**n/a**

Source: EU-pilot survey
1. Number of local units.

Even though the large countries dominate both subsectors in absolute levels, the number of enterprises in the hotel subsector in Austria is relatively large.

Not surprisingly, there is a slight tendency towards larger hotel subsectors in the southern parts of Europe indicating the importance of the tourism sector especially in these part of Europe. .

More than 40% of the enterprises in the hotel subsector are situated in Italy and France, which is considerable especially when comparing with the situation in Spain and the United Kingdom.

In the travel agency subsector the United Kingdom and Italy have the largest representation of enterprises of the participating Member States. They comprise more than half the total number of enterprises in travel agencies. However in the Italian pilot survey the statistical unit were the local unit instead of the enterprise which means that the number of units in Italy is overvalued.

3.2.1.1 Breakdown of number of enterprises

The number of enterprises in the hotel subsector can be broken down by employment size classes in all countries except Greece and the United Kingdom.

Almost 85% af all enterprises in the hotel subsector in the nine participating EU Member States have less than 10 employees (or persons employed), cf. table 3.2. Furthermore since less than 1% of the enterprises have more than 100 employees, enterprises in the hotel subsector can be characterized as relatively small.

Table 3.2: Number of enterprises in the hotel subsector, broken down by size classes, 1992

Country	0-9	10-49	50-99	100+	Total
DK	1 007	221	17	11	1 256
D	27 367	7 213	502	221	35 303
E	8 505	1 865	407	206	10 983
F	26 104	3 025	146	57	29 332
I[1]	31 001	4 056	228	86	35 371
L[2]	239	60	1	4	304
NL	1 362	420	95	41	1 918
A	16 855	1 898	77	83	18 913
S	1 361	350	60	30	1 801
Total	**113 801**	**19 108**	**1 533**	**739**	**135 181**

Source: EU-pilot survey
1. Number of local units.
2. Number of employees.

This domination of small enterprises is characteristic for all of the participating Member States, although some differences exist. In Austria and France almost 90% of the enterprises in the hotel sector have less than 10 employees. On the other hand only 71% of the enterprises in the Netherlands have less than 10 employees.

On average only 2% of the enterprises in the hotel subsector have 50 employees or more. In the Netherlands these enterprises comprise 7% of all enterprises, compared to less than 1% in both Austria and France, cf. table 3.2.

Altogether there seems to be no correlation between the countries geographical position and the structure of enterprises in the hotel sector.

3.2.2 Number of persons employed

Information concerning the number of persons employed in the hotel subsector and travel agencies are available for 8 of the participating Member States. Germany have provided data concerning the hotel subsector only.

The total number of persons employed in these eight Member States were almost 1.3 million in 1992, of which more than 3/4 were in the hotel subsector, cf. table 3.3.

Since this share is lower than its share of the number of enterprises (85%), the enterprises on average seems to be larger in the subsector of travel agencies.

It is interesting that the number of persons employed in the hotel subsector in Austria equals almost 3/5 the level in France and Italy and 2/3 the level in Spain. This seems to confirm that the Austrian hotel subsector is relatively large, considering that Austria is one of the smaller Member States.

Table 3.3: Number of persons employed, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	19 716	5 081	24 797
E	160 918	20 951	181 869
F	186 227	32 229	218 456
I[1]	185 894	36 490	222 434
L	3 049	376	3 425
NL	32 718	19 930	52 648
A	107 952	6 859	114 811
UK	314 526	149 520	464 046
Total (8)	**1 011 000**	**271 436**	**1 282 486**
D	330 265	n/a	n/a
Total	**1 341 265**	**n/a**	**n/a**

Source: EU-pilot survey

The United Kingdom is the Member State with most persons employed in travel agencies. But in this subsector the United Kingdom also had the largest share of the enterprises.

Comparing the number of enterprises with the number of persons employed gives an indication of the size of the enterprises. In general in both sectors the enterprises in Luxembourg and Spain were relatively small. On the other hand the average size in travel agencies in France was relatively large.

3.2.3 Number of employees

The number of employees includes all persons who work for an employer and who receive compensation in the form of wages, salaries, etc. Therefore part-time, seasonal and temporary workers are also included in the variable. The following data are annual averages calculated on the basis of quarterly data.

Complete data concerning the number of employees in hotels and travel agencies are available for 9 of the participating EU Member States. The total number of employees in these countries were just over 1 million, of which more than 3/4 were working in the hotel subsector, cf. table 3.4. In Austria and Luxembourg the domination of the hotel subsector is even higher, with approximately 90% of the total number of employees in 1992.

The number of employees in the United Kingdom covers 1/3 of the total number of employees in the hotel subsector in the 9 Member States. In travel agencies the British share of the number of employees is even higher (56%).

Table 3.4: Number of employees, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	10 286	4 072	14 358
E	79 812	20 690	100 502
F	153 192	29 823	183 015
I[1]	136 618	30 369	166 987
L	2 769	336	3 105
NL	30 236	9 590	39 826
A	87 774	6 753	94 527
S	24 977	7 115	32 092
UK	281 586	137 083	418 669
Total	**807 250**	**245 771**	**1 053 081**

Source: EU-pilot survey

The high proportion of employees in the United Kingdom can of course to a certain extent be explained by the fact that this country is one of the largest in the pilot surveys.

However in the hotel subsector the number of employees in the United Kingdom is approximately equal to the level in France and Italy together. In travel agencies, the number of employees in the United Kingdom is 70% higher than the number of employees in Italy, France and Spain taken together.

3.2.3.1 Breakdown of the number of employees in the hotel subsector

There are 9 Member States which have been able to provide a breakdown of the number of employees in the hotel subsector.

In these countries enterprises with 100 employees or more employ almost 1/5 of all employees. Considering enterprises with 50 employees or more the share increases to nearly 1/3, cf. table 3.5. As mentioned enterprises with more than 50 employees comprised less than 1/40 of all enterprises in the hotel subsector. Therefore the importance of the largest hotels is far higher than indicated by their number alone.

Table 3.5: Number of employees in hotels, broken down by employment size classes, 1992

Country	0-9	10-49	50-99	100+	Total
DK	1 917	4 666	1 161	2 542	10 286
D[1]	105 405	128 361	33 516	62 983	330 265
E[1]	21 350	52 393	49 599	37 576	160 918
F	69 982	51 322	9 950	21 939	153 193
I	62 844	45 084	16 394	12 296	136 618
L	862	1 145	74	688	2 769
NL	4 235	9 153	6 266	10 582	30 236
A	31 732	35 962	5 369	14 711	87 774
S	2 207	7 479	3 827	11 464	24 977
Total	**300 534**	**335 565**	**126 156**	**174 781**	**937 036**

Source: EU-pilot survey
1. Number of persons employed.

Compared to other sectors the largest enterprises in the hotel subsector are less important though. On average in all sectors in the economy enterprises with more than 50 persons employed comprised 3/4 of all the persons employed in the total EUR(12) in 1990. Half the persons employed in EUR(12) were working in enterprises with more than 100 persons employed[4].

In that sense the hotel sector can be described as dominated by micro and small enterprises. This pattern can be found in all participating Member States, although in Sweden and the Netherlands 46% and 35% of all employees are working in enterprises with 100 employees or more.

3.2.4 Employment per enterprise

In this section the number of persons employed in each country is evaluated relative to the number of enterprises. In that way differences in for instance country-size can be neutralized, which enables us to compare each country in a more meaningfull way.

In the 8 Member States with complete data covering both the hotel subsector and travel agencies the average number of persons employed per enterprise was 9.1 and 14.4 respectively, cf. table 3.6.

Enterprises within the travel agency subsector therefore are larger compared to the hotel sector. The variation around these average figures, are substantial however. For instance in the hotel subsector in the United Kingdom enterprises on average have 25 persons employed. On the other hand hotels in France, Italy and Austria employ 5-6 persons. However it should be born in mind, that the statistical unit in the Italian pilot survey was the local unit rather than the enterprise. Therefore the total number of units have been overestimated, which of course will tend to lower the average size of each hotel.

However there are some indications in the table that enterprises in the hotel subsector in the southern part of Europe on average are smaller than in the North, even though this conclusion is not valid on Spain.

Table 3.6: Number of persons employed relative to the number of enterprises, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	15.7	15.5	15.7
E	14.7	8.0	13.4
F	6.3	12.5	6.8
I[1]	5.3	6.4	5.4
L	10.0	4.8	9.0
NL	17.1	13.0	15.2
UK	25.0	28.2	26.0
A	5.7	9.5	5.8
Total(8)	**9.1**	**14.4**	**9.9**
D	9.4	n/a	n/a
Total	**9.2**	**n/a**	**n/a**

Source: EU-pilot survey.
1. Number of persons employed relative to the number of local units.

As mentioned the average number of persons employed in travel agencies is nearly 15 in the 8 participating Member States in the pilot survey. But the high average figure for travel agencies can to a large extent be explained by the relatively many and large travel agencies in the United Kingdom.

3.2.5 Part-time employment

In this section the extent of part-time employment in the two subsectors will be examined. The working hypothesis is that a high level of part-time employment can be considered as a proxy for relatively large seasonal and other fluctuations affecting the subsectors.

Complete data concerning the total number of part-time employees are available for 7 participating Member States. In hotels and travel agencies nearly 300 000 employees are working part-time, of which 86% in the hotel subsector, cf. table 3.7.

4 Eurostat. Enterprises in Europe, third report vol. II p. 48.

Table 3.7: Number of part-time employees, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	6 844	1 341	8 185
E	58 900	6 999	65 899
F	32 185	2 452	34 637
I	59 164	4 568	63 732
NL	10 562	470	11 032
A	11 374	498	11 872
UK	74 979	26 653	101 632
Total	**254 008**	**42 981**	**296 989**

Source: EU-pilot survey.

Surprisingly, the large countries have the highest number of part-time employees, and especially in travel agencies the United Kingdom have a very large influence on the total.

In order to analyse the real extent of part-time employment it is however necessary to consider the total employment in combination with part-time employment. This will be done in the following section.

3.2.5.1 Part-time employment relative to total employment

The ratio of part-time employees relative to number of persons employed for both sectors can be calculated for 7 Member States.

In the hotel sector 25% of the persons employed are part-time employees, whereas in travel agencies only 16% are part-time employees, cf. table 3.8.

In Spain, Denmark, Italy and the Netherlands approximately 1/3 of the persons employed are part-time employees. On the other hand only 1/9 of the persons employed in the hotel sector in Austria are part-time employees.

Table 3.8: Number of part-time employees/-number of persons employed, 1992 (shares)

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	0.35	0.26	0.33
E	0.37	0.33	0.36
F	0.17	0.08	0.16
I	0.12	0.09	0.11
NL	0.32	0.02	0.21
A	0.11	0.07	0.10
UK	0.24	0.18	0.22
Total	**0.25**	**0.16**	**0.23**

Source: EU-pilot survey.

In travel agencies Denmark and Spain have relatively many part-time employees compared to number of persons employed.

The extent of part-time employment in the both subsectors seems to be larger in Spain and Denmark, while it is relatively smaller in France and especially Austria. Therefore the seasonal fluctuations seems to be less profound in France and Austria compared to the other Member States.

3.2.6 Summary of demographic data

At this stage it can be concluded, that the hotel subsector in generel is much larger than travel agencies. Furthermore especially the Member States in the southern parts of the European Union have rather large hotel subsectors.

It was also stated that most enterprises in the hotel subsector were small, since nearly 85% of the enterprises had less than 10 employees.

Concerning the number of persons employed one striking feature in the hotel subsector was the relative large number of persons employed in Austria. In travel agencies more than half the persons employed were working in the United Kingdom

It was shown that the enterprises in travel agencies in generel were larger than in the hotel subsector, although this to a large extent could be explained by the situation in the United Kingdom.

The hotel subsector uses part-time employees more often than travel agencies. And it is in particular widespread in Spain and Denmark, while the opposite is true for countries like France and Austria. One explanation could be that a large part of the hotels in these countries are being used also in the winter as skiing resorts, thereby reducing the seasonal variations.

3.2.7 Turnover

Data on annual turnover in the hotel subsector and travel agencies in 1992 are available for 9 participating Member States. Germany were able to provide data for the hotel subsector only.

Annual turnover in these 9 Member States were ECU 92 billion in the hotel subsector and travel agencies in 1992, of which 54% in travel agencies, cf. table 3.9. Turnover in travel agencies therefore is relatively larger compared to the hotel subsector, especially considering the distribution of enterprises and employment between the two subsectors.

25% of total turnover in the hotel subsector was created in Germany, which is 50% higher than in the other large countries France, Italy and the United Kingdom.

Annual turnover in the Austrian hotel subsector was approximately half the level in these three countries, and it almost equaled annual turnover in the hotel subsector in Spain. Also measured by turnover, the Austrian hotel subsector is relatively large.

Table 3.9: Turnover (mill. ECU), 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	742	964	1 706
E	5 463	5 444	10 907
F	9 907	6 418	16 325
I	9 489	10 324	19 813
L	151	165	316
NL	1 382	1 937	3 319
A	4 816	2 276	7 092
S	1 555	3 522	5 077
UK	9 382	18 481	27 863
Total(9)	**42 887**	**49 531**	**92 418**
D	14 255	n/a	n/a
Total	**57 142**	**n/a**	**n/a**

Source: EU-pilot survey.

The most important country in travel agencies is the United Kingdom in which 37% of total turnover is created. Although this a very high share it should be considered that more than half the number of persons employed in travel agencies are working in the United Kingdom.

Eight Member States were able to provide data on both the number of persons employed and annual turnover. In the hotel subsector in these Member States turnover per person employed were approximately ECU 41 000 in 1992. In the United Kingdom it was approximately ECU 30 000, whereas in France and Italy it was more than ECU 50 000.

In travel agencies turnover per person employed in general were higher (ECU 165 800) compared to the hotel subsector and also the country differences are higher than in the hotel subsector. The lowest turnover per person employed was found in the Netherlands (ECU 97 000), whereas Luxembourg had the highest (ECU 439 000).

Turnover however should not be used as a measure of productivity or efficiency since this variable does not consider real production or value added.

3.2.7.1 Breakdown of turnover by employment size-classes

In the hotel subsector turnover can be divided into employment size-classes in 8 Member States. Enterprises with less than 10 employees created 30% of total annual turnover in the hotel subsector in 1992. On the other hand enterprises with more than 100 employees created almost 22% of annual turnover in the hotel subsector, cf. table 3.10.

There are thus no differences in the distribution of respectively annual turnover and number of employees regarding the smallest and largest size-classes. Therefore although the relation between turnover and number of employees gives no direct information concerning efficiency or productivity, it seems as no advantages due to economies of scale can be found in the hotel subsector.

Table 3.10: Turnover in hotels by employment size classes (mill. ECU), 1992

Country	0-9	10-49	50-99	100+	Total
DK	195	297	74	176	742
D	4 052	5 144	1 508	3 551	14 255
E	647	1 611	1 320	1 885	5 463
F	4 674	3 061	624	1 548	9 907
I	2 119	4 119	1 852	1 399	9 489
NL	267	370	271	474	1 382
A	2 033	1 860	238	685	4 816
S	365	527	185	478	1 555
Total	**14 352**	**16 989**	**6 072**	**10 196**	**47 609**

Source: EU-pilot survey.

In Spain and the Netherlands the largest enterprises create more than 1/3 of total annual turnover in the hotel subsector, whereas in Italy and Austria the largest enterprises comprise less than 1/6 of annual turnover.

Spain (and to a lesser degree the Netherlands) is also the country in which micro enterprises with less than 10 employees create the smallest share of annual turnover in the hotel subsector. On the other hand almost half the annual turnover in the hotel sector in France is created by enterprises with less than 10 employees.

3.2.8 Gross value added

Gross value added is a better measure of efficiency in that it takes into account direct production process costs[5].

Because of various problems of consistency etc., only 7 Member States could provide data on gross value added. The overall gross value added in these 7 Member States were ECU 19.6 billion in 1992, of which 3/4 were in the hotel subsector, cf. table 3.11.

Table 3.11: Gross Value Added at market prices (mill. ECU), 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	549	79	628
E	2 955	705	3 660
I	6 496	3 334	9 830
L	76	11	87
NL	767	303	1 070
A	2 928	320	3 248
S	797	279	1 076
Total	**14 568**	**5 031**	**19 599**

Source: EU-pilot survey.

Since most of the large Member States are not included in the table, it is not surprising that Italy comprises almost half the total gross value added in the hotel subsector and travel agencies.

3.2.9 Labour costs

The total labour costs in hotels and travel agencies in the 9 Member States with available data were ECU 18 billion in 1992 of which 3/4 in the hotel subsector, cf. table 3.12.

In the Netherlands, the United Kingdom and Sweden a relative smaller share of labour costs (2/3) were in the hotel subsector. In most other Member States the share of labour costs in the hotel subsector were between 80% and 90% of total labour costs of the two subsectors.

[5] Cf. Methodological Manual, ch. General Framework, p.51.

In the hotel subsector labour costs are highest in France followed by Italy and the United Kingdom. In travel agencies on the other hand labour costs are highest in the United Kingdom followed by Italy and France.

This is however not surprising considering that these Member States also had the largest number of employees.

Therefore labour costs should be compared to the number of employees in order to give an indication of differences in wage levels between the Member States.

On average the costs of one employee is approximately ECU 17 000 in the two subsectors. Employees in travel agencies are on average a little more expensive compared to the hotel subsector, but the differences at the overall level are rather small. But between the various countries the differences are much larger.

In both sectors, the cheapest labour costs per employee can be found in the United Kingdom. In the hotel subsector the highest labour costs per employee can be found in Spain, Denmark and Sweden. In travel agencies the wage level seems to be highest in Sweden, Italy and France.

Table 3.12: Labour costs (mp) (mill. ECU), 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	265	63	328
E	2 150	458	2 608
F	3 131	856	3 987
I	2 816	924	3 740
L	42	8	50
NL	444	218	662
A	1 428	175	1 603
S	597	257	854
UK	2 793	1 344	4 137
Total	**13 666**	**4 303**	**17 969**

Source: EU-pilot survey.

3.2.9.1 Breakdown of labour costs by employment size classes.

In 7 Member States it is possible to provide information concerning labour costs broken down by employment sizeclasses. On average enterprises with 100 employees or more constituted almost 1/4 of total labour costs in the hotel subsector, cf. table 3.13. In Spain and the Netherlands the large enterprises comprise almost 40% of total labour costs, compared to approximately 20% in the other Member States.

Table 3.13: Labour costs in hotels broken down by employment size classes, 1992

Country	0-9	10-49	50-99	100+	Total
DK	50	115	31	69	265
E	174	580	544	852	2 150
F	1 240	1 074	222	595	3 131
I	415	1 214	658	529	2 816
NL	54	123	94	173	444
A	454	612	84	278	1 428
Total	**2 387**	**3 718**	**1 633**	**2 496**	**10 234**

Source: EU-pilot survey.

3.2.10 Labour costs relative to number of employees, broken down into size classes

In this section the ratio of labour costs to the number of employees will be broken down into employment size-classes in order to investigate if labour costs are the same for all types of enterprises.

In general labour costs per employee increases with the size of the enterprise. On average, labour costs per employee in the largest size-class (100+) is more than twice the level in the size-class 0-9 employees, cf. table 3.14. But actually it is only in France and especially Italy that this difference is significant. In the other 4 Member States the differencies are quite smaller.

Table 3.14: Labour costs per employee in hotels by employment size class (000 ECU), 1992

Country	0-9	10-49	50-99	100+	Total
DK	24.5	24.6	26.7	27.1	25.8
F	17.7	20.9	22.3	27.1	20.4
I	6.6	27.8	43.8	35.2	20.6
NL	12.8	13.4	15.0	16.3	14.7
A	14.3	17.0	15.7	18.9	16.3
Total	**13.0**	**21.5**	**27.8**	**26.5**	**19.3**

Source: EU-pilot survey.

In more general terms, labour costs in Italy and France therefore is highly influenced by the size of the enterprises, whereas in Denmark and also to a certain degree in the other countries, labour costs is more equal between the different sizeclasses.

Even though labour costs per employee in Denmark on average is larger than the other Member States, Italy have the highest labour costs per employee in the two largest sizeclasses.

3.2.11 Tangible investments

Complete data concerning tangible investments in the hotel sector and travel agencies are available for 8 Member States. Furthermore Sweden was able to provide investments data for respectively travel agencies and the hotel subsector.

In these 8 Member States total investments in 1992 were ECU 6.7 billion, of which more than 85% in the hotel subsector, cf. table 3.15.

In the hotel subsector investments were highest in Italy followed by France and the United Kingdom. In travel agencies more than half the total investments were from the United Kingdom. In France, Italy and Spain more than 90% of investments are made in the hotel subsector. On the other hand in the United Kingdom and the Netherlands the hotel subsector comprise respectively 70% and 77% of total investments.

Table 3.15: Tangible investments (mill. ECU), 1992

Country	Hotels (55.1)	Travel Agencies (63.30.1)	Total
DK	88	2	90
E	1 146	93	1 239
F	1 193	78	1 271
I	1 619	123	1 742
L	26	1	27
NL	158	48	206
A	783	17	800
UK	943	415	1 358
Total(8)	**5 956**	**777**	**6 733**
S	167	n/a	n/a
Total	**6 123**	**n/a**	**n/a**

Source: EU-pilot survey.

3.2.12 Gross value added per person employed

Gross value added per person employed is an indicator of productivity, and it is available for 6 Member States.

Apparently productivity is higher in travel agencies compared to the hotel subsector, since the overall gross value added per person employed in the two subsectors are appoximetaly ECU 66 700 and ECU 27 000 in 1992, cf. table 3.16. But a closer inspection of the table reveals that this almost exclusively is caused by high productivity in travel agencies in Austria and especially Italy. The consequence of excluding all data from these two Member States is firstly that the overall productivity decreases and secondly that the differences in productivity between the two sectors narrows to almost nothing.

Table 3.16: Gross value added per person employed (ECU), 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	27 845	15 548	25 326
E	18 363	33 671	20 126
I	34 945	91 242	44 193
L	24 926	29 255	25 401
NL	23 443	15 203	20 324
A	27 123	46 654	42 531
Total	**26 989**	**71 214**	**33 600**

Source: EU-pilot survey.

Table 3.17: Labour costs/gross value added, 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	0.48	0.80	0.52
E	0.73	0.65	0.71
I	0.43	0.28	0.38
L	0.55	0.73	0.57
NL	0.58	0.72	0.62
A	0.49	0.54	0.49
S	0.75	0.92	0.79
Total	**0.53**	**0.42**	**0.50**

Source: EU-pilot survey.

3.2.13 Labour costs/gross value added

Comparing labour costs with gross value added gives an indication of cost-efficiency in the way that it shows whether gross value added is sufficient for paying first of all the production factor labour but also the self-employed.

Therefore this ratio should be considered together with for instance the ratio of number of persons employed to number of employees. This is because relatively many self-employed other things equal means lower labour costs.

Complete data concerning labour costs and gross value added were available for 7 Member States. The overall level of the ratio of labour costs to gross value added were 0.53 and 0.42 in the hotel subsector and travel agencies respectively, cf. table 3.17.

Considering that the number of self-employed in general is higher in the hotel subsector compared to travel agencies, then the relative higher labour costs in the hotel subsector seems to indicate that the level of wages and salaries in the hotel sector is too high compared to gross value added.

In Sweden and Spain labour costs in general comprise a larger share of gross value added. On the other hand in Italy labour costs make up a smaller share.

3.2.14 Tangible investments/labour costs

Even though investments should be considered through a period of time instead of just one year, the ratio of tangible investments to labour costs can give a rough indication of whether the production proces is capital or labour intensive.

In general the ratio of investments to labour costs is highest in the hotel subsector, cf. table 3.18. This pattern can be found in all Member States.

Table 3.18: Tangible investments/labour costs 1992

Country	Hotels (55.1)	Travel Agencies (63.30)	Total
DK	0.33	0.03	0.27
E	0.53	0.20	0.47
F	0.38	0.09	0.32
I	0.57	0.13	0.47
L[1]	0.62	0.13	0.54
NL	0.36	0.22	0.31
A	0.55	0.10	0.50
UK	0.34	0.31	0.33
Total(8)	**0.45**	**0.19**	**0.39**
S	0.28	n/a	n/a
Total	**0.43**	**0.19**	**n/a**

Source: EU-pilot survey.
[1] Tangible investments are not anounts.

In Luxembourg and Austria investments in general are relatively higher compared to the Netherlands, France and the United Kingdom.

Only in the United Kingdom and to a lesser degree the Netherlands the ratio of investments to labour costs in travel agencies are relatively large compared to the hotel subsector.

EU-pilot survey on the Transport sector

4.1 Introduction

Transport has been an important part of the European economies for many years. The globalisation of the economy and especially the increasing integration of the European economies will lead to a future growth in the transport sector.

The increasingly specialized production means that it has to be transported from the producers (subcontractors) to other producers and finally to the consumers. Therefore transport is playing an integral part of the different economies.

The transport sector is currently being deregulated, especially within transport via railways and scheduled air transport, but also freight transport by road is concerned. The liberalising of the European transport market is expected to increase efficiency and thus lead to growing activity of the sector.

The growing need for transportation means that focus has been attributed to the transport sector and in particular on energy consumption related to transport activites and the environmental consequences. However, these issues are not the subject of this pilot survey. Instead focus will be attached at various business statistics variables.

4.1.1 Methods and definitions

In the EU countries, a mixture of two types of surveys has been used for the transport sector: enterprise-based surveys and register-based surveys. All countries used the first category of surveys for freight transport by road. With regard to transport via railways and scheduled and non-sceduled air transport, surveys of the second type were carried out in several countries (e.g. United Kingdom). A combination of both types of surveys were also used (e.g. Italy and Denmark regarding Air transport).

The population to be surveyed consisted of the enterprises whose principal or sole activity was one of the following according to NACE Rev. 1:

- Transport via railways (60.10). The activities of Transport via railways mainly consists of passenger and freight transportation by railways. It should be noted that city underground, tramways and funicular railways are excluded. These activities are included in NACE Rev.1 class 60.21 (Other scheduled passenger land transport).
- Freight transport by road (60.24). The enterprises belonging to this subsector are specialised in the transportation of goods with road vehicles, including rental services of freight vehicles with operator. This class is quite heterogeneous, depending on the type of goods transported (e.g. furniture, dry bulks, liquid bulks) and the type of vehicles used for the transportation. Freight transport by road is strongly international orientated.
- Scheduled air transport (62.10) and Non-scheduled air transport (62.20). Enterprises in these classes mainly carry out passenger and freight transportation with aircraft and rental services of aircraft with personnel respectively. A sharp distinction between these classes is not always possible, because especially the major scheduled airlines run charter flights as well. In recent years, the larger charter companies have started scheduled flights. In the following, the total of the two classes will be called Air transport.

For the three NACE Rev. 1 classes a model questionnaire was developed for the purposes of the pilot study. Each questionnaire had the same structure and covered the following variables of the enterprise:

- general characteristics (e.g. legal status, control by non-residents, domestic local units and establishments abroad)
- main activity
- income (operating, financial and extraordinary)
- costs and expenses (operating, financial and extraordinary)
- breakdown of net turnover
- exports and imports
- investments and leasing
- transport equipment
- traffic and transport performances
- employment
- regional data

The questionnaire was characterised by a detailed breakdown of the variables 'turnover' and 'costs and expenses'. Some Member States adapted the questionnaire to the specific situation of their country. Special attention was given to the specification of the gross-net path of turnover that means the treatment of subcontracting.

The Methodological Manual of Statistics on Service Enterprises (chapters 'General Framework' and 'Transport') served as a reference framework for the study. In addition, some explanatory notes on variables (e.g. subcontracting and delineation of turnover of transport via railways) were available. In line with the Methodological Manual all Member States chose the enterprise to serve as the survey unit. This was necessary as, in principle, only enterprises have at their disposal the data required for answering the detailed questions on some financial variables, quantities of energy consumption, transport equipment and performances. Generally speaking, taking the enterprise as the observation and statistical unit did not cause great problems for the statistical institutes in carrying out the survey.

4.1.2 Participation and forms of conduct

Except Austria and Finland, all Member States participated in the pilot survey on transport services. Sweden only participated in the survey on freight transport by road (hereafter Road transport). In some countries the survey was integrated in a regular survey (e.g. France and Sweden), while in other countries the regular survey had to be supplemented with an additional questionnaire (e.g. Italy and Portugal). Despite the great importance of the services sectors in general, some countries had no appropriate statistical coverage of the transport services in view. As a consequence, they had to develop a specific new survey (Belgium, Denmark, Ireland, Italy and United Kingdom).

In all Member States, the survey for Road transport was conducted in the form of a sample survey. On the other hand, the survey in transport via railways (hereafter Railway transport) was carried out as an exhaustive survey in all countries. In Air transport both forms of survey were used, depending on the number of enterprises in the population in the participating countries. In some countries the model questionnaires were discussed with professional organisations before they were fixed in a definite form. In the majority of the countries questionnaires were mailed to the enterprises, sometimes after contacting them about their willingness for co-operation. If the mail questionnaire was not successful, sometimes telephone or personal interviews followed. In Belgium the survey was conducted by staff from the University of Antwerp, the executive institute, interviewing financial staff of the enterprises in the subsectors. Specially trained staff from the statistical institute conducted the survey in Greece.

While in some Member States the survey was conducted on a voluntary basis, in others the questions to enterprises were compulsory. In general, existing registers of national statistical offices could serve to obtain the addresses of the enterprises and, if required, to draw a sample. However, in Germany, Greece (Road transport) and Ireland (Air transport) other sampling frames had to be used, in this case administrative registers. Some countries, having at their disposal a business register, also seemed to face problems in gaining exact information about the survey population, because of the absence of an up-to-date register (e.g. Italy regarding Road transport)

According to the contract regulations, the participating countries should draw a sample within the three transport subsectors of in total 360 to 2400 units depending on the size of the Member State. The countries used various stratification criteria, the most common being the size-class of the enterprises. Some also used regional criteria. As to the size of the enterprises, some countries concentrated at the higher size-classes, in particular in Air transport.

Generally the national pilot surveys were carried out in 1994 and 1995 covering the reference year 1993, but some exceptions occurred.

These short remarks clearly show that the framework conditions under which the pilot survey was conducted in the countries differed widely. The priorities the countries set in achieving the individual objectives of the study partly differed too. Some countries participating in the study concentrated particularly on examining methodological issues, i.e. on evaluating and testing the questionnaire, the methodology and definitions proposed by Eurostat (for instance Germany). Others, already having regular-based surveys and an up-to-date business register, were especially interested in gaining quantitative information. This situation has affected the comparability of the quantitative results of the pilot study. For this reason, problems will arise particularly for the comparison with other sectors within the same national economy and for the international comparison of the transport subsectors.

Another aspect influencing the interpretation and comparability of data is the government impact through the political framework conditions, such as market access and forms of (de)regulation, and government financial support for the transport subsectors. In nearly all Member States, Railway transport has been characterised by one or few large state-owned enterprises. In some countries (e.g. Italy) a process of market access has already begun, and it is expected also to happen in other Member States in the future. This process will lead to changes in the market and financial structure of the industry. As a result, the differences in pace of this process in the countries will influence the international comparability of the data. Also in Road transport, the Member States have different political framework conditions, appearing from among others different transport licence systems. In general, these differences could affect the comparability of data. Government financial support plays an important role in Railway transport and for some countries also in Air transport. The differences in the extent of financial support may disturb a comparison of the results between countries.

The calculation of data for Denmark and Sweden was subject to a specific problem, namely the division of the data concerning Scandinavian Airline Systems over the three owner countries, Denmark, Sweden and Norway. All data on SAS are allocated on the basis of the share ownership ratio of the countries (2/7, 3/7 and 2/7 respectively).

4.2 Quantitative results

The enterprises in the three subsectors of transport which have been evaluated through the pilot surveys are operating under very different frame conditions in the Member States. The subsectors of Railway and Air transport either are or have been until very recently characterized by a monopoly situation with one typically state owned enterprise. On the other hand Road transport is typically characterized by many smaller enterprises.

Regardless of these differences the three subsectors in the following will be analyzed together in order to draw up similarities and disparities between them.

4.2.1 Number of enterprises

In the 10 EU Member States with separate data on number of enterprises for all subsectors, the total were 338 000 enterprises of which more than 337 000 were situated within Road transport, cf. table 4.1.

This illustrates the different frame conditions which were mentioned above, Road transport being characterized by the existence of many enterprises, whereas only very few enterprises are operating in the other two subsectors.

Railway transport is operated by just one enterprise in six of the thirteen Member States for which data are available. In some Member States several other enterprises are found, but they are mostly regionally operating.

Table 4.1: Number of enterprises, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	1	2 733[1]	5	2 739
DK	14[1]	9 772	11	9 797
E	7	132 870	28	132 905
F	15	36 441	125	36 581
I	29	86 485	100	86 614
L	1[2]	349[2]	4	354
NL	1	8 365	166	8 532
P	1	6 105	41	6 147
S	19	14 222	111	14 352
UK	1	40 083	49	40 133
Total(10)	**89**	**337 425**	**640**	**338 154**
D	56	n/a	33	n/a
GR	1	n/a	1	n/a
IRL	2	n/a	n/a	n/a
Total	**157**	**n/a**	**n/a**	**n/a**

In all tables the total concern different numbers of countries in the three subsectors. German data on Railway and Air transport include only the largest enterprises (sample data). This goes also for Danish data on Air transport. Greek data concern in all tables the year 1992. In Belgium, enterprises with legal status of sole proprietorship or partnerships have been excluded in Road transport.

[1] 1994 data

[2] 1992 data

Source: pilot survey data 1993

Railway transport therefore is characterized by a monopoly or near monopoly situation in almost every Member State in this pilot survey. Though in Italy certain sections of the railway network have been conceded to railway enterprises other than the national (state-owned) railway enterprise. In Germany the number of enterprises in Railway transport comprises almost 2/3 of the total number of enterprises in Railway transport in the 10 Member States with complete data.

In Air transport the number of enterprises in general is also small, although the fact that in only one country there is a complete monopoly perhaps can be taken as an indication of the ongoing liberalization in this subsector.

In Road transport nearly 40% of the enterprises are originating in Spain, while another 25% are placed in Italy. These two countries therefore comprise nearly two thirds of the enterprises in Road transport in the 9 EU Member States with complete data concerning the transport sector.

Even though 4 out of the 5 countries with a monopoly in Railway transport are rather small, in general there seems to be no correspondance between country size and the number of enterprises. For instance Sweden and Denmark both have relatively many enterprises compared to France and especially Spain.

Neither in Air transport there seems to be any correlation between country size and the number of enterprises. Most enterprises are found in the Netherlands, but also in France and Sweden relatively many enterprises are registered, cf. table 4.1.

In Road transport most enterprises are situated in Spain, and in Denmark more enterprises are operated than in Belgium and the Netherlands. Therefore no correlation between country size and the number of enterprises seems to be the case in this sub-sector either.

This is perhaps surprising since the larger the country, measured by area and population, the higher the demand for these services should be expected. And in a free market this should lead to more enterprises because of the competition. However, the data should be analyzed with caution since not all Member States have included the small regional enterprises in the survey, because of their marginal importance for employment, turnover etc. In the United Kingdom, for instance, enterprises with round trips are excluded from the survey.

The number of enterprises in Road transport in Belgium is small, but the survey data do not include enterprises owned by self-employed drivers. Therefore the total number of active enterprises in Belgium should have been about 7 300 if the 4 600 self-employed drivers were taken into account.

4.2.2 Number of persons employed

Complete data concerning the number of persons employed in the transport sector are available for 10 EU Member States. Approximately 2.1 million persons employed are working in the transport sector in these countries of which nearly 60% in Road transport. In Railway transport 30% of the total number of persons employed are working.

In general the country distribution of the number of persons employed is not surprising considering the different country sizes. However some interesting differences exists when the sector distribution in the different participating Member States are compared.

Table 4.2: Number of persons employed, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	43 504	41 155	10 610	95 269
DK	11 587[1]	35 363	7 533	54 483
E	47 442	240 871	31 891	320 204
F	192 805	261 108	61 448	515 361
I	158 296	220 157	22 437	400 890
L[2]	3 464	3 329[3]	1 867[3]	8 660[3]
NL	27 032	92 710	29 110	148 852
P	20 413	26 535	10 944	57 892
S	18 817[3]	56 518	9 965[3]	85 300
UK	121 052	246 469	69 734	437 255
Total(10)	**640 948**	**1 224 215**	**255 539**	**2 124 166**
D	369 048	n/a	52 429	n/a
GR	12 658[2]	n/a	11 135[2]	n/a
IRL	4 237	n/a	n/a	n/a
Total	**1 030 355**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
[3] Number of employees
Source: pilot survey data 1993

In Italy relatively few persons employed are working in Air transport. On the other hand the situation in the Netherlands is the opposite.

In Spain 3/4 of the persons employed are working in Road transport. Also in Sweden, Denmark and the Netherlands Road transport contains relatively many of the total number of persons employed in these countries. The relatively low number of persons employed in Road transport in Belgium is due to the exclusion of the self-employed from the data.

In Italy and France Railway transport comprise a relatively large share of the two countries total number of persons employed, especially compared to Spain and the Netherlands.

In Germany the number of persons employed in Railway transport is more than the level in France and Italy together.

4.2.3 Number of employees

In Railway transport the number of employees corresponds to number of persons employed. In Air transport the difference is only marginal, as only the Dutch data show a small deviation. The reason is that enterprises with a legal status of sole proprietorship or partnership obviously do not occur in these kind of activities, implying no self-employed can be observed in the data. Therefore in the following only Road transport will be analysed.

Complete data covering all three subsectors of transport have been provided by 9 Member States. In these countries approximately 1.72 mio. employees are working, of which 854 000 employees (or 50%) in Road transport, cf. table 4.3.

Table 4.3: Number of employees, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	43 504	37 980	10 610	92 094
DK	11 587[1]	22 594	7 532	41 713
E	47 442	113 510	31 891	192 843
F	192 805	232 211	61 419	486 435
I	158 296	99 582	22 437	280 315
L[2.]	3 464	3 329	1 867	8 660
NL	27 032	84 420	28 071	139 523
S	18 817	49 118	9 965	77 900
UK	121 052	211 470	69 734	402 256
Total(9)	**623 999**	**854 214**	**243 526**	**1 721 739**
D	369 048	n/a	52 417	n/a
GR	12 658[2]	n/a	11 135[2]	n/a
IRL	4 237	n/a	n/a	n/a
Total	**1 009 942**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
Source: pilot survey data 1993

Compared to the number of persons employed, relatively few employees are working in Italy and Spain. Therefore relatively many self-employed are situated in these two countries. Overall more than 120 000 self-employed persons are working in Road transport in Italy and Spain, which means that almost all enterprises in this subsector in Spain are owned by self-employed persons. In Italy not only almost all enterprises are owned by self-employed persons, but also at least 34 000 unpaid family workers have been involved in the activities, as the difference between number of persons employed and number of employees is higher than the number of enterprises.

In Denmark also relatively many enterprises are owned by self-employed persons, whereas in Sweden a different structure can be found, since 7 400 self-employed drivers and unpaid family workers were active in 14 200 enterprises.

4.2.4 Number of persons employed per enterprise

The structure described in the last section is reflected also in the ratio persons employed/enterprises. In countries like Denmark, Spain and Italy with relatively many self-employed persons, the enterprises are small, cf. table 4.4. But also in Sweden, in which half the enterprises had a legal status other than sole proprietorship or partnership, the enterprises are small.

The average number of persons employed per enterprise is largest in Railway transport, and this is the case in all countries. Only in Denmark and Greece the average number of persons employed per enterprise in Air transport is similar to Railway transport. In Greece Air transport only contains one enterprise.

Table 4.4: Number of persons employed per enterprise, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	43 504	15	2 122	35
DK	828[1]	4	685	6
E	6 777	2	1 139	2
F	12 854	7	492	14
I	5 458	3	224	5
L[3]	3 464	10[2]	467[2]	24[2]
NL	27 032	11	175	17
S[2]	990	4	90	6
UK	121 052	6	1 423	11
Total(10)	**7 241**	**4**	**399**	**6**
D	6 590	n/a	1 589	n/a
GR[3]	12 658	n/a	11 135	n/a
IRL	2 119	n/a	n/a	n/a
Total	**6 563**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] Number of employees per enterprise
[3] 1992-data
Source: pilot survey data 1993

4.2.5 Labour costs

The total labour costs in the surveyed transport subsectors in the seven countries for which data for all subsectors are available were ECU 52.5 billion in 1993, cf. table 4.5.

More than 80% of the labour costs was related to either Railway or Road transport. Considering the higher number of employees in Road transport compared to Railway transport, it is interesting that labour costs in these two subsectors are approximately at the same level.

This indicates that the level of part-time employment is higher and/or the level of wages and salaries lower in Road transport compared to Railway transport.

Also in Air transport labour costs seems to be rather high compared to the number of employees.

Table 4.5: Labour costs (mio. ECU), 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	2 078	1 145	404	3 627
DK	381[1]	992	473	1 846
E	1 310	2 487	1 352	5 149
F	6 676	5 810	3 117	15 603
I	6 689	3 342	1 232	11 263
NL	852	2 521	1 075	4 448
UK	3 400	6 129	1 075	10 604
Total(7)	**21 386**	**22 426**	**8 728**	**52 540**
D	13 368	n/a	2 615	n/a
GR	190[2]	n/a	290[2]	n/a
IRL	111	n/a	n/a	n/a
L[2.]	139	78	n/a	n/a
S	n/a	1 116	465	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
Source: pilot survey data 1993

In Denmark, Spain and the Netherlands labour costs in Air transport are relatively higher, in that approximately 1/4 of total labour costs in these countries can be attributed to this subsector.

In Road transport in the United Kingdom, the Netherlands and Denmark labour costs comprise 54-58% of the total labour costs in the surveyed transport subsectors.

Italy and Belgium on the other hand are the countries in which labour costs in Railway transport are relatively high (57-59% of total labour costs in these countries).

Germany were not able to provide complete data for all surveyed subsectors of transport, but in Railway transport labour costs in Germany comprises more than 60% of the total of labour costs in the 7 countries with complete data for all subsectors.

4.2.6 Tangible investments

Complete data concerning tangible investments in the transport sector are available for 7 Member States and these countires a total of almost ECU 30 billion was invested in 1993 cf. table 4.6. In principle investments should only be considered through a period of several years due to the substantial fluctuations in this variable, but this has however not been possible.

Almost 3/4 of the total investments in the 7 EU Member States with complete data was made in either Railway or Air transport. This is of course not surprising because of the high capital demands in these subsectors compared to Road transport.

Investments are highest in the United Kingdom and Italy followed by France. Investments in these three countries make up almost 3/4 of the total in EU(7).

Table 4.6: Tangible investments (mio ECU), 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	872	374	663	1 909
DK	145[1]	543	914	1 602
E	975	524	297	1 796
F	3 822	959	1 191	5 972
I	2 542[3]	3 246[3]	2 132	7 920
NL	1 094[2]	746	614	2 454
UK	1 550	1 329	4 852[4]	7 731
Total(7)	**11 000**	**7 721**	**10 663**	**29 384**
D	6 036	n/a	764	n/a
GR[2]	111	n/a	56	n/a
IRL	23	n/a	n/a	n/a
L[2]	22	28	n/a	n/a
S	n/a	328	38	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
[3] Total investments
[4] Owned and financial leased aircrafts.
Source: pilot survey data 1993

In Railway transport investments are significantly higher in Germany compared to the other 10 Member States with seperate data on investments in this subsector.

Data concerning investments in Road transport are available for 9 Member States, and the level in Italy comprises 40% of this total. This is a very high share, but there was given no explanation for this in the national report. The reason then seems to be what could be called seasonal fluctuations rather than the implementation of a big investment program in the Italian subsector of Road transport.

Investments in the subsector of Air transport were available for 10 EU Member States, of which investments in the United Kingdom comprised more than 40%. This very high share can at least to some extent be explained by the fact that the British data also contain owned and financial leased aircrafts, as explained in the table notes.

4.2.7 Turnover

Total turnover in the 7 EU Member States for which complete data are available were ECU 140.2 billion in 1993, cf. table 4.7. France, the United Kingdom and Italy contributed with more than 70%. But in France subcontracting has been included in the turnover and the intermediate consumption, resulting in an overestimation of turnover in comparison with Member States which calculated turnover and intermediate consumption exclusive of subcontracting.

In all countries Road transport had the highest turnover of the three subsectors. The share varied between 54% (in France) and 73% (in Italy) and with 60% as the average level in the 7 EU Member States with complete data.

Considering Railway transport, turnover in Germany and France make up more than 2/3 the total of the 11 EU Member States with data concerning turnover in Railway transport. Apart from Belgium and France Railway transport comprised approximately 10% of total turnover in the transport sector in all countries with complete data. The relative high share in Belgium is primarily explained by the exclusion of enterprises with legal status of sole proprietorship or partnership in Road transport.

Table 4.7: Turnover (mio. ECU), 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	1 693	3 938	1 499	7 130
DK	526[1]	2 856	1 692	5 074
E	993	11 432	4 062	16 487
F	8 022	20 564	9 600	38 186
I	3 904	20 700	3 773	28 377
NL	984	6 481	4 446	11 911
UK	3 983	19 714	9 354	33 051
Total(7)	**20 105**	**85 685**	**34 426**	**140 216**
D	8 918	n/a	9 717	n/a
GR[2]	73	n/a	696	n/a
IRL	103	n/a	n/a	n/a
L[2]	49	365	n/a	n/a
S	n/a	4 824	1 792	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
Source: pilot survey data 1993

In Road transport the level of turnover in France, Italy and the United Kingdom approximately is the same, altogether comprising 2/3 of total turnover in the 9 EU Member States with seperate data on Road transport.

This pattern is repeted also for Air transport, except that Italy in the top-3 is replaced by Germany in this subsector. The rather large subsector of Air transport in the Netherlands, which has been mentioned previously is also reflected in the data on turnover. Actually Air transport in the Netherlands is larger than in Spain and Italy, when measured by turnover, even though the latter two countries are much larger. In countries with complete seperate data on turnover, Air transport on average comprises 1/4 of total turnover in the transport sector. The outliers are Italy (13%) and the Netherlands (37%).

Turnover can not be analyzed properly without also considering the input of production factors. Therefore for instance turnover should be analysed together with the level of employment.

On average turnover per person employed in transport is approximately ECU 71 000 in 1993 in the 7 EU Member States with complete data. Apart from Spain and Denmark with average turnover per person employed at respectively ECU 51 000 and ECU 93 000 the remaining 5 countries varied between ECU 71 000 and ECU 80 000.

The variation between the different subsectors is quite substantial. On average turnover per person employed in Air transport is more than 4 times higher than in Railway transport.

In all subsectors turnover per person employed is lowest in Spain, and highest in either Denmark or France or both.

Turnover is however not a sufficient measure of for instance productivity or efficiency. Furthermore it should be noticed that in several countries turnover was confronted with methodological problems. The major problem concerns estimation of the value of subcontracting as a deduction of turnover, which could not be solved in all Member States. Therefore it is more appropriate to consider gross value added at factor costs instead, cf. the following section.

4.2.8 Gross value added

In this section gross value added at factor costs, broken down by country and subsector, will be examined. Complete data on gross value added covering all subsectors are available for 5 EU Member States.

Gross value added in these 5 Member States was almost ECU 60 billion in 1993 of which 55% was created in Road transport, cf. table 4.8. The second largest subsector in transport, as far as gross value added at factor costs is concerned is Railway transport comprising 28% of total gross value added in transport in the 5 Member States.

Therefore Road transport is the most important subsector of the transport sector, if importance is measured by gross value added as well as number of persons employed, which was shown is section 4.2.2.

In Railway transport Germany is the most important EU Member State, in that its share of total gross value added in this subsector is more than 40%. This is significantly higher than its share of number of persons employed and turnover and also marginally higher than its share of labour costs in this subsector.

Table 4.8: Gross value added at factor costs, mio. ECU 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	2 061	1 685	414	4 160
E	2 130	6 600	884	9 614
F	7 556	7 851	3 045	18 452
NL	1 233	3 613	1 720	6 566
UK	3 234	12 467	4 204	19 905
Total(5)	**16 214**	**32 216**	**10 267**	**58 697**
DK	n/a	1 691	n/a	n/a
D	14 906	n/a	5 169	n/a
GR[1]	124	n/a	291	n/a
IRL	177	n/a	n/a	n/a
I	4 867[2]	n/a	n/a	n/a
L[1]	168	124	n/a	n/a
S	n/a	2 256	477	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1992-data
[2] Estimation (data on subsidies, duties and taxes of concessionary railways were not available)
Source: pilot survey data 1993

In Road transport the United Kingdom, followed by France and Spain have the highest gross value added. In the United Kingdom the share is more than 1/3, while the other two countries comprise about 1/5 of total gross value added in Road transport. This is a remarkable result, considering that the three Member States all had approximately the same number of persons employed in this subsector.

In Air transport the dominant Member States are Germany and the United Kingdom followed by France. Their shares of total gross value added in this subsector are respectively (approximately) 1/3, 1/4 and 1/5.

Considering that in this subsector the number of persons employed in the United Kingdom were 1/7 and 1/3 higher than in respectively France and Germany, productivity seems to be relatively higher in Germany.

This can however be a result of differences in the price and costs level between these Member States, and therefore productivity alternatively could be measured as gross value added relative to labour costs, see a later section of this chapter.

Air transport in the Netherlands seems also to be relatively productive compared to other Member States. For instance gross value added is more than twice the level in Spain even though the number of persons employed in the latter Member State is higher than in the Netherlands.

4.2.9 Gross value added per person employed

Complete data on gross value added relative to persons employed (productivity) are available for 5 EU Member States[1]. The average productivity in these five countries is about ECU 38 700, but the variation around this average is considerable, cf. table 4.9. Productivity is lowest in Spain followed by France. In the other Member States with complete data, productivity is at approximately the same level, which is around 50% higher than in Spain.

Gross value added in Air transport is higher than the average in the other subsectors.

In Railway transport productivity in most Member States is between ECU 40 000 and ECU 50 000. Greece have the smallest productivity of all Member States, and its level is only marginally higher than 1/4 of the average of the 10 EU Member States with data on productivity in Railway transport. Also in the United Kingdom and to a lesser extent Italy, productivity is much smaller than the average.

On the other hand in Road transport the United Kingdom has the highest productivity of all Member States. Also in Denmark, Road transport seems to be a rather productive branch.

As mentioned in the previous section productivity in Spain and France was lower than in the United Kingdom. And it appears from table 4.9 that productivity in these countries actually is lower than the average calculated in the pilot survey.

[1] Productivity is defined as gross value added per person employed, but in principle gross value added should be measured in fixed prices.

Table 4.9: Gross value added at factor costs per person employed (ECU), 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	47 375	40 943	39 020	43 666
E	44 897	27 401	27 719	30 025
F	39 190	30 068	49 554	35 804
NL	45 613	38 971	59 086	44 111
UK	26 716	50 582	60 286	45 523
Total(5)	**37 547**	**36 513**	**50 628**	**38 694**
DK	n/a	47 818	n/a	n/a
D	40 390	n/a	98 590	n/a
GR[1]	9 796	n/a	26 134	n/a
IRL	41 775	n/a	n/a	n/a
I	30 746[2]	n/a	n/a	n/a
L[1]	48 499	n/a	n/a	n/a
S	n/a	39 916	47 868	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1992-data
[2] Estimation (data on subsidies, duties and taxes of concessionary railways were not available)
Source: pilot survey data 1993

In Air transport Germany is the Member State in this pilot survey with the largest productivity of all. Productivity in the United Kingdom and the Netherlands is also relatively large, while on the other hand Air transport seems to be much less productive in Greece and Spain. It is interesting, that Greece is the only country in which only one enterprise is registered.

However as mentioned in the previous section, these results should be taken with precautions as they could be caused by differences in the price and costs levels. Therefore for instance the analysis could be supplemented with ratios of labour costs to gross value added. This will be done in the following section.

4.2.10 Labour costs relative to gross value added at factor costs

Complete data on labour costs and gross value added for all subsectors of transport are available for 5 of 13 the Member States in this pilot survey.

In these 5 Member States labour costs on average comprise 2/3 of gross value added, cf. table 4.10. In United Kingdom and Spain labour costs make up a little more than 50% of gross value added. On the other hand the ratio of labour costs to gross value added is approximately 85% in Belgium and France.

Labour costs relative to gross value added can be interpretated as an indicator of the labour intensity in the production process. But labour costs will tend to overestimate labour intensity in the subsectors in which the number of self-employed are particularly low as for instance Railway and Air transport compared to Road transport.

The ratio of labour costs to gross value added is significantly lower in Road transport compared with the other subsectors of transport, and in particular Railway transport. But labour costs will tend to underestimate labour intensity in the subsectors in which the number of self-employed are particularly high as for instance Road transport.

In Air transport the labour intensity is significantly lower compared to the other subsectors, but considering the capital requirements this is expected.

Data on the labour intensity in Railway transport are available for 10 EU Member States, and it varies between 0.62 in Spain and 1.53 in Greece, cf. table 4.10. In 8 out of 10 of the participating Member States it is above 0.80.

In Road tranport labour intensity on average is lower, but as explained previously this is primarily due to the relative many self-employed in this subsector. The labour intensity varies between 0.38 (in Spain which had relatively many self-employed) and 0.74 (in France in which the number of self-employed was relatively small).

Because of the differences in the number of self-employed persons, it is very difficult to draw any firm conclusions from the table. But since the relative number of self-employed are approximately the same in the United Kingdom and France, the lower labour intensity in the former country is a real indication of lower labour intensity.

Table 4.10: Labour costs/Gr. value added, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	1.01	0.68	0.98	0.87
E	0.62	0.38	1.53	0.54
F	0.88	0.74	1.02	0.85
NL	0.69	0.70	0.63	0.68
UK	1.05	0.49	0.26	0.53
Total(5)	**0.88**	**0.56**	**0.68**	**0.67**
DK	n/a	0.59	n/a	n/a
D	0.90	n/a	0.51	n/a
GR	1.53[1]	n/a	1.00[1]	n/a
IRL	0.63	n/a	n/a	n/a
I	1.37[2]	n/a	n/a	n/a
L	0.83[1]	0.63[1]	n/a	n/a
S	n/a	0.49	0.97	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1992-data
[2] Estimation (data on subsidies, duties and taxes of concessionary railways were not available)
Source: pilot survey data 1993

Apart from labour intensity, the ratio of labour costs to gross value added can be seen as the need for subsidies, because the consequences of a high ratio is that a smaller amount is left for the remuneration of the other production factors. In this case operating subsidies to the subsector can be neccessary.

4.2.11 Investments relative to labour costs

Measuring investments relative to labour costs gives an indication of capital intensity in the production process. But investments because of their longivity should not be considered in just one year, but rather through a longer period of time. However this will be disregarded in the following, as the pilot survey was at once-off survey.

Even though labour costs in many ways can be said being a more accurate measure of labour input, one problem is that differences between countries and/or subsectors in the extent of self-employment hamper the analysis. If in one subsector the extent of self-employment is relatively more pronounced, then capital intensity will be overestimated.

Complete data on both investments and labour costs for all subsectors of transport could be found in 7 out of 13 EU Member States. The average ratio of investments to labour costs is 56%, but with a considerable variation between countries and subsectors. In Spain and France investments compared to labour costs in transport apparently is relatively low, while investments on the other hand were quite high in especially Denmark but also, although to a lesser extent, in the United Kingdom and Italy, cf. table 4.11.

In Road transport investments seems to be lower compared to the other subsectors, and baring in mind the relatively many self-employed persons in Road transport, investments in this subsector is even smaller compared to the input of labour.

On the other hand investments compared to labour costs in Air transport are at a substantial level. Especially in the United Kingdom, but also in Denmark and Italy investments are high, which is partly because investments in the United Kingdom and Italy include owned and financial leased aircrafts and total investments respectively, cf. table 4.11.

In Railway transport the Netherlands has the highest investments, but again the variable covers total investments instead of just tangible investments. Apart from that the explanation is an intensive investment programme which started in the beginning of the 1990-decade.

In Luxembourg and Ireland investments in Railway transport apparently are relatively lower than in other EU Member States.

In Road transport the level of investments compared to labour costs are relatively high in Italy, which is partly because of intangible investments are also included in the variable on investments. In most other Member States investments are quite low, even though as explained a substantial part of the labour input is not included in labour costs. Therefore investments on an overall level seems rather low in Road transport compared to the other subsectors. Thus Road transport seems to be rather labour intensive at least compared to other subsectors of transport.

Table 4.11: Investments/Labour costs, 1993

Country	Railway transport (60.10)	Road transport (60.24)	Air transport (62.1-62.2)	Total
B	0.42	0.33	1.64	0.53
DK	0.38[1]	0.55	1.93	0.87
E	0.74	0.21	0.22	0.35
F	0.57	0.17	0.38	0.38
I	0.38[3]	0.97[3]	1.73[3]	0.70
NL	1.28[3]	0.30	0.57	0.55
UK	0.46	0.22	4.51[4]	0.73
Total(7)	**0.51**	**0.34**	**1.22**	**0.56**
D	0.45	n/a	0.29	n/a
GR	0.58[2]	n/a	0.19[2]	n/a
IRL	0.21	n/a	n/a	n/a
L	0.16	0.36	n/a	n/a
S	**n/a**	0.29	0.08	n/a
Total	**n/a**	**n/a**	**n/a**	**n/a**

See table 4.1 for general notes.
[1] 1994-data
[2] 1992-data
[3] Total investments
[4] Owned and financial leased aircrafts
Source: pilot survey data 1993

In Air transport the level of investments in general are high, although the character of the capital needs (expensive aircrafts with a relatively long life-cycle), means that investments in some countries are rather low. Of course this argument also goes for Railway transport, because investments in new trains and equipment are costly and therefore weights heavily in the budget.

ES Clasificación de las publicaciones de Eurostat

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- 0 Diversos (rosa)
- 1 Estadísticas generales (azul oscuro)
- 2 Economía y finanzas (violeta)
- 3 Población y condiciones sociales (amarillo)
- 4 Energía e industria (azul claro)
- 5 Agricultura, silvicultura y pesca (verde)
- 6 Comercio exterior (rojo)
- 7 Comercio, servicios y transportes (naranja)
- 8 Medio ambiente (turquesa)
- 9 Investigación y desarrollo (marrón)

SERIE

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- B Estadísticas coyunturales
- C Cuentas y encuestas
- D Estudios e investigación
- E Métodos
- F Estadísticas breves

GR Ταξινόμηση των δημοσιεύσεων της Eurostat

ΘΕΜΑ

- 0 Διάφορα (ροζ)
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- 2 Οικονομία και δημοσιονομικά (βιολετί)
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- 4 Ενέργεια και βιομηχανία (μπλε)
- 5 Γεωργία, δάση και αλιεία (πράσινο)
- 6 Εξωτερικό εμπόριο (κόκκινο)
- 7 Εμπόριο, υπηρεσίες και μεταφορές (πορτοκαλί)
- 8 Περιβάλλον (τουρκουάζ)
- 9 Έρευνα και ανάπτυξη (καφέ)

ΣΕΙΡΑ

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- B Συγκυριακές στατιστικές
- C Λογαριασμοί και έρευνες
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- F Στατιστικές εν συντομία

IT Classificazione delle pubblicazioni dell'Eurostat

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- 6 Commercio estero (rosso)
- 7 Commercio, servizi e trasporti (arancione)
- 8 Ambiente (turchese)
- 9 Ricerca e sviluppo (marrone)

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- A Annuari e statistiche annuali
- B Statistiche sulla congiuntura
- C Conti e indagini
- D Studi e ricerche
- E Metodi
- F Statistiche in breve

FI Eurostatin julkaisuluokitus

AIHE

- 0 Sekalaista (vaaleanpunainen)
- 1 Yleiset tilastot (yönsininen)
- 2 Talous ja rahoitus (violetti)
- 3 Väestö- ja sosiaalitilastot (keltainen)
- 4 Energia ja teollisuus (sininen)
- 5 Maa- ja metsätalous, kalastus (vihreä)
- 6 Ulkomaankauppa (punainen)
- 7 Kauppa, palvelut ja liikenne (oranssi)
- 8 Ympäristö (turkoosi)
- 9 Tutkimus ja kehitys (ruskea)

SARJA

- A Vuosikirjat ja vuositilastot
- B Suhdannetilastot
- C Laskennat ja kyselytutkimukset
- D Tutkimukset
- E Menetelmät
- F Tilastokatsaukset

DA Klassifikation af Eurostats publikationer

EMNE

- 0 Diverse (rosa)
- 1 Almene statistikker (mørkeblå)
- 2 Økonomi og finanser (violet)
- 3 Befolkning og sociale forhold (gul)
- 4 Energi og industri (blå)
- 5 Landbrug, skovbrug og fiskeri (grøn)
- 6 Udenrigshandel (rød)
- 7 Handel, tjenesteydelser og transport (orange)
- 8 Miljø (turkis)
- 9 Forskning og udvikling (brun)

SERIE

- A Årbøger og årlige statistikker
- B Konjunkturstatistikker
- C Tællinger og rundspørger
- D Undersøgelser og forskning
- E Metoder
- F Statistikoversigter

EN Classification of Eurostat publications

THEME

- 0 Miscellaneous (pink)
- 1 General statistics (midnight blue)
- 2 Economy and finance (violet)
- 3 Population and social conditions (yellow)
- 4 Energy and industry (blue)
- 5 Agriculture, forestry and fisheries (green)
- 6 External trade (red)
- 7 Distributive trades, services and transport (orange)
- 8 Environment (turquoise)
- 9 Research and development (brown)

SERIES

- A Yearbooks and yearly statistics
- B Short-term statistics
- C Accounts and surveys
- D Studies and research
- E Methods
- F Statistics in focus

NL Classificatie van de publikaties van Eurostat

ONDERWERP

- 0 Diverse (roze)
- 1 Algemene statistiek (donkerblauw)
- 2 Economie en financiën (paars)
- 3 Bevolking en sociale voorwaarden (geel)
- 4 Energie en industrie (blauw)
- 5 Landbouw, bosbouw en visserij (groen)
- 6 Buitenlandse handel (rood)
- 7 Handel, diensten en vervoer (oranje)
- 8 Milieu (turkoois)
- 9 Onderzoek en ontwikkeling (bruin)

SERIE

- A Jaarboeken en jaarstatistieken
- B Conjunctuurstatistieken
- C Rekeningen en enquêtes
- D Studies en onderzoeken
- E Methoden
- F Statistieken in het kort

SV Klassifikation av Eurostats publikationer

ÄMNE

- 0 Diverse (rosa)
- 1 Allmän statistik (mörkblå)
- 2 Ekonomi och finans (lila)
- 3 Befolkning och sociala förhållanden (gul)
- 4 Energi och industri (blå)
- 5 Jordbruk, skogsbruk och fiske (grön)
- 6 Utrikeshandel (röd)
- 7 Handel, tjänster och transport (orange)
- 8 Miljö (turkos)
- 9 Forskning och utveckling (brun)

SERIE

- A Årsböcker och årlig statistik
- B Konjunkturstatistik
- C Redogörelser och enkäter
- D Undersökningar och forskning
- E Metoder
- F Statistiköversikter

DE Gliederung der Veröffentlichungen von Eurostat

THEMENKREIS

- 0 Verschiedenes (rosa)
- 1 Allgemeine Statistik (dunkelblau)
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- 4 Energie und Industrie (blau)
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- 6 Außenhandel (rot)
- 7 Handel, Dienstleistungen und Verkehr (orange)
- 8 Umwelt (türkis)
- 9 Forschung und Entwicklung (braun)

REIHE

- A Jahrbücher und jährliche Statistiken
- B Konjunkturstatistiken
- C Konten und Erhebungen
- D Studien und Forschungsergebnisse
- E Methoden
- F Statistik kurzgefaßt

FR Classification des publications d'Eurostat

THÈME

- 0 Divers (rose)
- 1 Statistiques générales (bleu nuit)
- 2 Économie et finances (violet)
- 3 Population et conditions sociales (jaune)
- 4 Énergie et industrie (bleu)
- 5 Agriculture, sylviculture et pêche (vert)
- 6 Commerce extérieur (rouge)
- 7 Commerce, services et transports (orange)
- 8 Environnement (turquoise)
- 9 Recherche et développement (brun)

SÉRIE

- A Annuaires et statistiques annuelles
- B Statistiques conjoncturelles
- C Comptes et enquêtes
- D Études et recherche
- E Méthodes
- F Statistiques en bref

PT Classificação das publicações do Eurostat

TEMA

- 0 Diversos (rosa)
- 1 Estatísticas gerais (azul-escuro)
- 2 Economia e finanças (violeta)
- 3 População e condições sociais (amarelo)
- 4 Energia e indústria (azul)
- 5 Agricultura, silvicultura e pesca (verde)
- 6 Comércio externo (vermelho)
- 7 Comércio, serviços e transportes (laranja)
- 8 Ambiente (turquesa)
- 9 Investigação e desenvolvimento (castanho)

SÉRIE

- A Anuários e estatísticas anuais
- B Estatísticas conjunturais
- C Contas e inquéritos
- D Estudos e investigação
- E Métodos
- F Estatísticas breves

European Commission

Statistics on selected service sectors in the EU — A synthesis of quantitative results of pilot surveys on audiovisual services, hotels and travel agencies and transports

Luxembourg: Office for Official Publications of the European Communities

1997 — vi, 48 pp. — 21 x 29.7 cm

Theme 7: Distributive trades, services and transport (orange)
Series C: Accounts and surveys

ISBN 92-828-0194-2

Price (excluding VAT) in Luxembourg: ECU 7

This publication is the result of three pilot surveys carried out by Member States in cooperation with Eurostat, the statistical office of the European Commission.

The publication consists of a descriptive analysis of audiovisual services, hotels and travel agencies and transport in 15 Member States of the European Union. The main variables studied are structural and demographic variables (number of enterprises, employment (number of employees and full/part-time employment), economic variables (turnover, gross value-added, labour costs and investments) and special indicators (turnover broken down by type of clients and by domestic/exports markets), illustrated with graphs and tables. The pilot surveys cover the years 1992-93.

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