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EU Services Statistics - A medium term perspective

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Abstract: Based on the growing economic weight of services all across developed economies, the document states the needs of detailed business statistics in illustrating the large range of users. A big step forward towards harmonised and comparable annual business statistics at the level of the EU was the adoption of the Regulation 58/97 concerning structural business statistics. This regulation will be complemented by a legislation laying down short-term statistics with a monthly or quarterly frequency. Despite a rather comprehensive coverage of these regulations in terms of activities (with the exception of the services coverage on the draft Regulation concerning short term statistics) there is enough space for further developing annual and short term business statistics into various directions. Part of the thoughts on further developments will deal with a refined data collection strategy , but also with the link between business statistics and business registers.

EU Services Statistics

A medium term perspective

(AJG, 23/6/1997)

1. Introduction

This document aims to provide a general overview on the situation of the EU statistics on services enterprises. Based hereon and considering the user needs, a medium term strategy (covering a term of about 5 years) for further developing services statistics is drawn up.

Account is taken on the development work on the one hand and on the possibilities of implementing the results on the other hand. The role of business registers in this context is of particular interest.

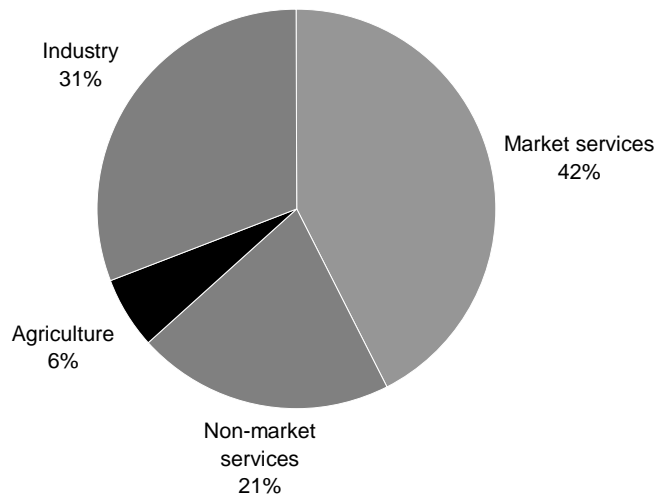## 2. The services economy

2.1. Structure and breakdown

The total scope of the services economy comprises the sections G till Q of the Nace Rev.1 nomenclature. As not being of primary interest for enterprise statistics in the services area, the sections

- L: Public administrations and defense; compulsory social security;
- P: Private households with employed persons
- and Q: Extra-territorial organizations and bodies

will not more be considered in the following observations.

In 1960 services represented 56% of total gross value added and 40% of total employment in the European Community's Member States. Since then, they have rapidly expanded to assume the leadership of the European economy with shares of more than 63% both in terms of value added and employment. In 1994 in Europe, the services sector generated 3 810 billion ECU of gross value added, or almost two thirds of the total gross value added produced in the economy. Three-quarters of this amount was attributable to market services, one quarter to non-market services.

**Breakdown of employment by branches
in Europe**[1]

Industry
31%

Market services
42%

Agriculture
6%

Non-market
services
21%

(1) EUR 15 excluding Greece, 1991

**Breakdown of value added by branches
in Europe**[1]

Industry
32%

Market services
51%

Agriculture
2%

Non-market
services
15%
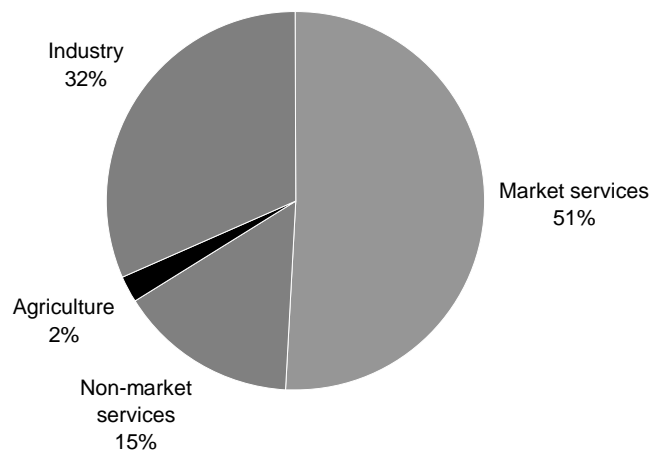
(1) EUR 15, 1994

The services sectors shows a high level of heterogeneity. It encompasses a vast and varied group of economic activities. Services are often described as opposed to primary and secondary activities. However manufactured products may also contain a service feature (e.g. after-sales service). Other definitions are based on specific characteristics of services: the non-storability, non-transportability or the simultaneity of production and consumption.

More comprehensive information on employment and turnover is available for selected market services sectors (Section G: Distributive trades, section H: Hotels and restaurants, section I: Transport, storage and communication, part of section J: Financial intermediation and section K: Business services).

Breakdown of the number of persons employed, 1995 (1)
(percentage of the covered sectors total)
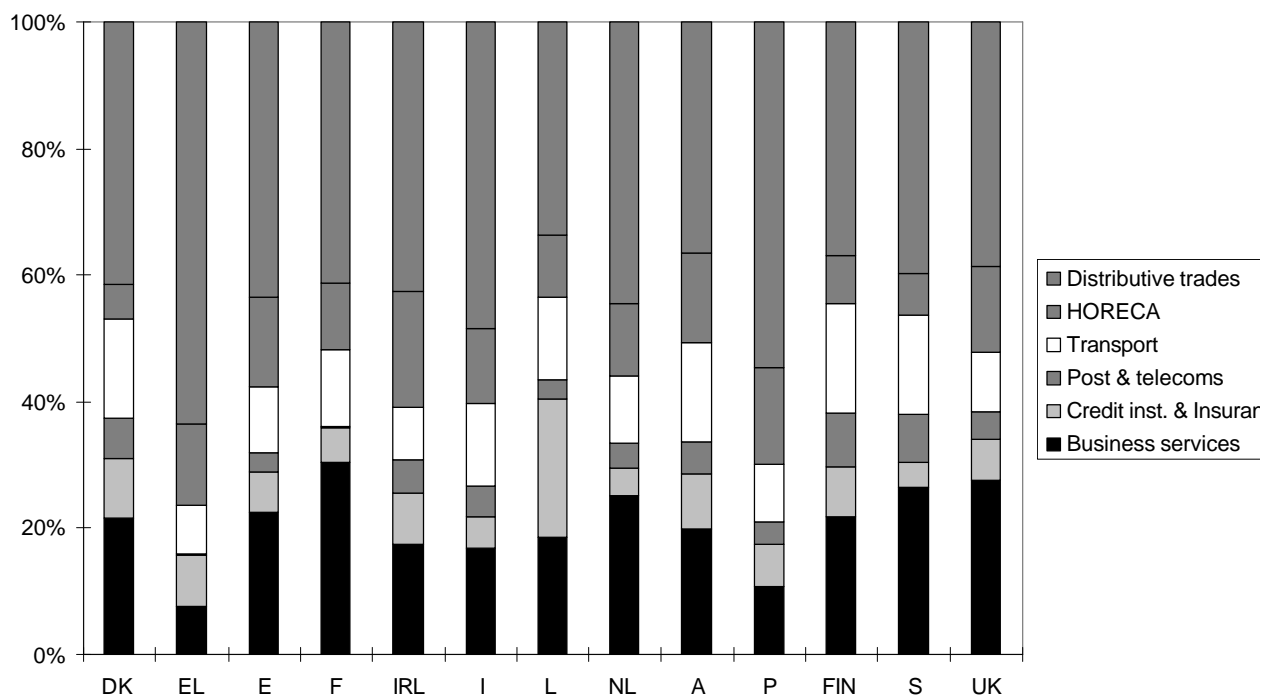
Source: •
(1) DK: number of employees full-time equivalent; E, FIN: number of employees

Based on the data from 1995 for 13 member States (excl. B and D), more than 37 million persons are employed in these services sectors. Fifteen million of these persons work in distributive trades, 8.4 million in business services and 4.3 million in the Horeca sector.

Distributive trades clearly dominate the market services sector. They give work to roughly 40 to 50% of the market services workforce in a majority of Member States. Business services are the second main work providers in market services with shares of employment of 20% to 25%. In particular Member States such as France and the United Kingdom, business services even absorb 30% of the market services workforce. In the Horeca and transport sector employment weights with an average of 12 to 15% whilst finally, communication services and financial services both employ 5 to 8% of the market services workforce.

Breakdown of turnover, 1995
(percentage of the covered sectors total)
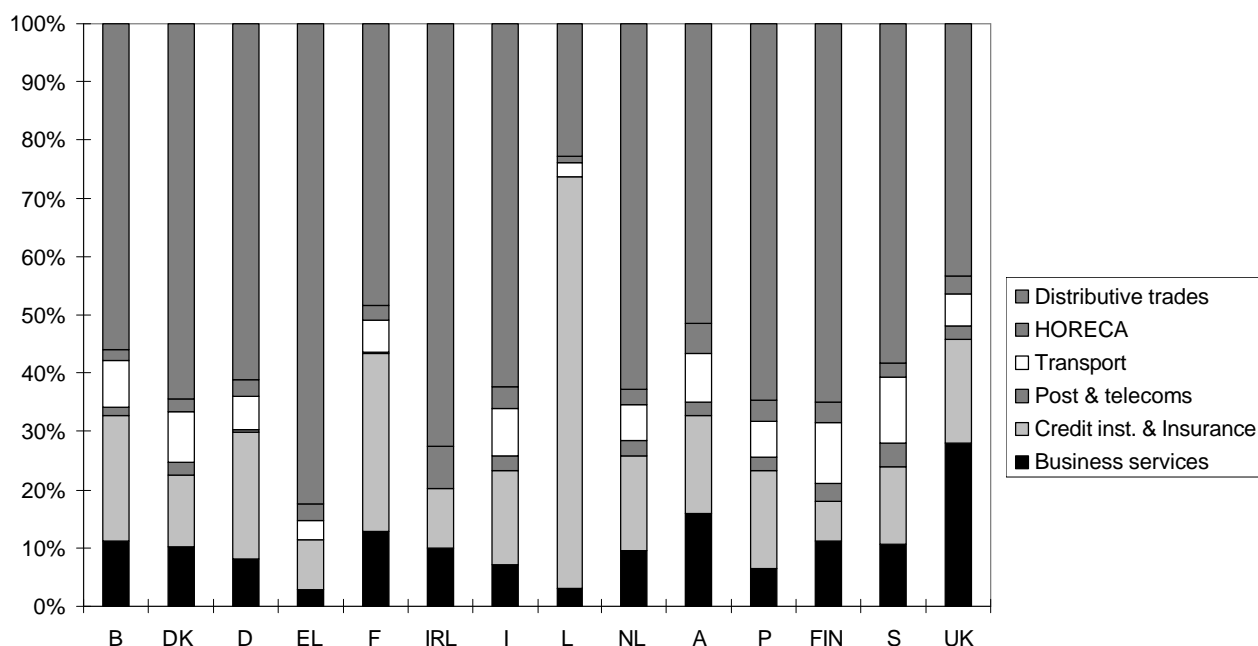
Source: •

(1) for Credit institutions: interests & commission received; for Insurance: gross premiums written.

As far as turnover of the market services is concerned, the total of the covered sectors for the available countries exceeded 6,000 billion ECU in 1995. Again, distributive trades take the lion share. In a majority of countries, the share approximates 60% of the total, which is higher than the relative weight of the sector in terms of employment or number of enterprises.

Transport services obtain between 6 to 8% of the total turnover except in Finland and in Sweden where they reach 10%. The Horeca sector represents 3 to 5% of the total. Credit institutions and insurance companies (where the comparison of corresponding data sometimes is rather problematic) represent in a majority of countries approximately 16% of the total national turnover of the market services sectors which is a largely overproportional share compared to the other indicators employment and number of enterprises.

In contrast, business services' share of the total market services turnover is generally speaking about half its share of the other indicators, at about 10 to 13%. As an exception, the United Kingdom ranks well above the average with a share of 28%. Finally, 2 to 3% of the total turnover of the covered market services can be attributed to commincation services.

2.2. Criteria for distinguishing the services sectors

With reference to the medium term strategy of developing EU statistics on services enterprises the large variety of market and non-market services can be distinguished according to a number of criteria. In Table 1 the services sectors - structured according to the Nace Rev.1 nomenclature - are evaluated according to these criteria which are e.g. the dynamic of the sectors, the clients structure or the level of internationalisation. Due to the heterogeneity of the services activities even within particular Nace sections this is not always an easy task.

Table 1: The heterogeneity of the services sectors

Distinguishing criteria

Services sectors (in terms of Nace)	Dynamic of the sector (e.g. structural changes, new products, etc.)	Clients structure (Individuals, businesses)	Impact on the competitivity of clients	Level of tangible and intangible investments	Le... tic...
Section G: Wholesale, retail trade, etc.	Medium	Individuals/businesses	Low	Medium	Lo... bu...
Section H: Hotels and restaurants	Low	Individuals/businesses	Low	High	Lo... bu...
Section I: Transport, storage	Medium	Individuals/businesses	Medium	Medium	M...
Section I: Communication	High (partly low)	Individuals/businesses	High	High	H...
Section J: Financial intermediation	Medium	Individuals/businesses	Medium	High	M...
Section K: Business services	Partly high	Businesses	High	Medium	M...
Section M: Education	Medium	Individuals/businesses	High	High	Lo...
Section N: Health and social work	Medium	Mainly individuals	Low	High	Lo...
Section O: Other community, social and personal service activity	Partly high	Mainly individuals	Low	Medium	O...

The criteria used above certainly are not complete. They however provide a rough picture on the heterogeneity of the services sectors. Some orientation can be deduced for the medium term strategy of developing services statistics.

The criteria mentioned could in some way be linked to statistical domains or statistical questions of particular interest. Taking as example the criteria 'dynamic of the sector' this domain e.g. refers to questions such as the number of newly created enterprises, the turnover on (new) products, the cost structures of the enterprises or the employment according to the seniority of the staff.

For sectors for which the criteria are only met on a very limited or low extent the questions linked to these criteria are surely to be put on a lower priority. The same has to be done vice versa, when the sector meets the criteria on a high degree. In some cases not all activities being part of a Nace section meet the criteria in the same way: In section I, e.g., telecommunication and postal services are covered which meet the criteria on different extents (e.g. high/low dynamic etc.).

Implicitly those criteria have already been used when developing EU enterprise statistics in the past. This already lead to more deepened questioning on particular domains in certain sectors whilst other domains are investigated with a reduced set of questions.

3.   The EU Services Statistics

3.1. The user needs

When developing EU enterprise statistics in the services but also non services area the following users have - in general - be addressed:

a) The enterprises and markets in general and in particular those of the sectors observed, with regard to specific domains such as the structure and evolution of the business or information allowing the assessment of the activity, performance and competitiveness of the businesses.

b) National and international political bodies, in particular the European Commission or national governmental bodies. Those institutions deal with national/international policy matters for which detailed and regular information on businesses is of essential importance. Two examples might underline the concrete needs of those users:

- The backing-up of the GATS negotiations aiming to liberalise the world-wide trade in services. Of high interest for those negotiations are all kind of cross-border flows, in particular those between EU countries and non-EU countries.

- The following-up of the effectiveness of the EU Internal market. Not only intra-EU cross border flows are to be observed but also - more in general - the evolution and behaviour of the businesses.

c) An additional use of enterprise statistics in the services area is the backing-up of derived statistics such as national accounts or balance of payments data. The development of detailed and high quality enterprise statistics ought to lead to a considerable quality improvement of those derived statistics in many sectors.

d) Research institutes, universities or other kind of economic analysts. The output of those users often turns back to users mentioned above.

This list of users of information on services enterprises might not be complete. The main addressees however are listed.

3.2. Annual statistics

With the adoption of the Regulation 58/97 concerning structural business statistics in December 1996 the EU enterprise statistics in the services area made a huge step forward. Starting with the reference year 1995, harmonized and comparable European statistics on services but also non services enterprises will be more and more available on a regular and comparable base.

The Regulation comprises a horizontal and vertical perspective. The horizontal perspective is reflected in its annex 1. This annex defines a limited set of data to be compiled for a large range of services and non services activities (= section C till section K of the Nace rev. 1 nomenclature). The data listed there refers to demographic, enterprise and regional characteristics.

Basically this annex 1 is oriented towards the needs of derived statistics such as national accounts. In contrast the needs of the businesses and markets themselves have only partly been incorporated.

The vertical aspect of the Regulation consists of sector specific annexes developed on particular activities. For the services area only one sector specific annex exists at the moment: This is annex 3 to the Regulation laying down detailed statistics for distributive trade activities (= section G of the Nace Rev. 1 nomenclature). An additional annex on insurance activities (= annex 5 to the Regulation) will be added soon.

The Regulation 58/97 concerning structural business statistics is illustrated in Table 2. Beside the enterprise statistics some functional statistics on certain domains such as tourism, transport, environment or health services are added in this table. In general, those functional statistics have separate EU legal bases.

Table 2: EU enterprise and functional statistics on the services econo

Regulatory framework

Services sectors (in terms of Nace)	Basic data (= annex 1 of Council Regulation 58/97	ENTERPRISE STATISTICS Comprehensive data	
Section G: Wholesale, retail trade, etc.		**Annex 3 of the Regulation 58/97**	
Section H: Hotels and restaurants			To
Section I: Transport, storage			Var Dir
Section I: Communication		Pilot studies are undertaken	Sta (Hc
Section J: Financial intermediation		**Draft annex 5 to the Regulation 58/97 (on Insurance Statistics)**	
Section K: Business services		Pilot studies are undertaken	
Section M: Education	Pilot studies will be undertaken		prom
Section N: Health and social work	Pilot studies will be undertaken		t
Section O: Other community, social and personal service activity	Pilot studies have been / will be undertaken		E.g

Table 2 illustrates scope and coverage of the Regulation 58/97 concerning structural business statistics in the services area. The table shows that comprehensive enterprise statistics, meeting the range of users as pictured above, currently are only available for distributive trade and insurance services. Those two services sectors cover around 50 % of the EU services industry (measured in term of persons employed).

The concept of this framework regulation foresees to attach more sector specific annexes whenever a sector gets mature for it.

The two detailed annexes on distributive trade and insurance services follow different approaches: Whilst the annex on distributive trade services normally causes statistical surveys and therefore burdens enterprises and national authorities, the Insurance Services Statistics - in contrast - are largely based on administrative sources, i.e. on the data collected in the frame of the supervision of insurance enterprises. So very little additional burden is caused by the latter statistics.

Both areas, by the way, cross the borderline between pure enterprise based statistics and functional statistics. On a rather limited extend functional data (e.g. sales space on distributive trade or number of contracts in insurance) are included in both sectoral systems.

The table clearly indicates considerable statistical gaps over the services economy. So the medium term strategy to be developed concentrates on these gaps and on the question how these gaps can be diminished.

3.2 Short term statistics

As regards short term statistics on services, industry and construction enterprises large progress has been reached with the Regulation concerning short-term indicators. According to this legislation which is still in a draft stage short term statistics on a number of sectors should be available from the reference year 1998 onwards.

Whilst the industry and construction sectors are well covered in this regulation the treatment of the services sectors is more than disappointing. This has already been criticized from many interested parties. The only sector in the services area where short term statistics are foreseen is the distributive trade sector. The coverage of this sector is limited to nearly all retail trade activities with only three variables to be observed: turnover, persons employed, deflator of sales.

Table 3 pictures the Regulation concerning short term indicators. It illustrates the deplorable situation in the services sector.

Table 3: Short term statistics

Nace sections	Short term indicators
Section G: Wholesale, retail trade, etc.	**Groups 52.1 to 52.6 only**
Section H: Hotels and restaurants	
Section I: Transport, storage	
Section I: Communication	For all other services activities pilot studies are to be carried out by the end of 2002
Section J: Financial intermediation	
Section K: Business services	
Section O: Other community, social and personal service activity	

For the other services sectors being part of the Nace sections G to K and O (except the retail trade activities mentioned above) the regulation only foresees pilot studies which should in particular concentrate on the following characteristics: The enterprise as observation unit, turnover and the persons employed as relevant variables, a quarterly frequency and a breakdown of the data according to the level of divisions of the Nace Rev. 1 nomenclature.

It seems evident that when carrying out the pilot studies this general approach has to be refined and adapted to the large variety of services activities.

4.   Perspectives for further developments

4.1.   Data structure and modules for annual statistics

The previous chapters lead to the conclusions that EU enterprise statistics in the services area are not yet fully developed. Table 2 indicated the statistical gaps existing in many services areas. These gaps are of particular importance on those activities where no or only limited functional statistics exist (e.g. in the area of business services statistics).

So the future efforts on EU enterprise statistics in the services area should be two-fold:

a) On the one hand the basic set of data of annex 1 of the Regulation should be expanded to those sectors and activities which are not yet covered by this annex 1. These are mainly the education, health and other community, social and personal service activities. Specific adaptations for these activities will get necessary. For a maximum of coherence should however be cared.

b) On the other hand efforts have to be undertaken going beyond the basic set of data for more sectors and activities. These efforts should be guided by the needs of those users, which have not yet been considered in a sufficient manner: the businesses and markets themselves.

The strategy developed in the following concentrates on the second aspect: Not completing the Regulation with regard to sectors but going beyond it, towards more sector specific data. The strategy will therefore concentrate on the extension of enterprise statistics based on a limited set of basic data as pictured in annex 1 of the Regulation.

First experiences in this area (made in particular on business services activities) showed that the following domains of observation seem to be of particular interest and therefore to be deepened in knowledge:

1) The structure of the enterprises
2) Accounting information (in particular on the profit and loss account)
3) The breakdown of turnover
4) The internationalisation of the businesses
5) The employment
6) The investments
7) Functional information

Nearly all of these domains are linked to annex 1 of the Regulation 58/97 concerning structural business statistics. Often the basic variable reflecting the domain is considered (e. g. the turnover or the number of enterprises). Working towards more satisfying enterprise statistics in the services area therefore means to detail and deepen the information on these domains. Additional domains may be added if deemed necessary.

Specific data sets on these domains could be developed which could - inter alia - take up the following information:

1) Information on the structure: Observation of the legal status, the primary/secondary activity, the links to the enterprise group, to affiliated enterprises, subsidiaries, birth and death of enterprises, concentration ratios, survival rates, etc.

2) Accounting information: In particular on the balance sheet and profit and loss account: Information on the income structure, the change in stocks, the cost structure, the cash flow, the profitability, debtor and creditors ratios, expenses for subcontracting and leasing, financial income and expenses, etc.

3) The breakdown of turnover: Breakdown according to main activity/ secondary activities, to products (in particular new ones), to market segments, clients, procurement methods, types of remuneration, etc.

4) Data on internationalisation: Turnover from abroad, broken down by countries (EU and non EU countries), by products, by distribution channels, turnover according to the nationality of ownership, etc.

5) Data on employment: Breakdown according to full/part time employees, education, sex, age, seniority, training time spent (split up according to purposes), fixed term employment, tele-working employment, free lancers, all kind of skills of the employees, etc.

6) Data on tangible and intangible investments: Breakdown according to categories of investments, expenses/stocks on intangibles (training, marketing, research and development, etc.).

7) Supply and demand interaction: Outsourcing developments, lean production, etc.

8) Functional data: Mainly sector specific; this domain is of main importance where no comprehensive functional statistics exist.

Apart from the functional data it seems feasible to develop data sets common to a larger number of services sectors. Functional data - in contrast - is rather sector specific and therefore not compatible with this idea of common data sets on common domains.

Like illustrated in Table 2 two different treatments of functional data are possible. On the one hand an addition of some limited functional data to comprehensive enterprise statistics on particular activities. This approach has been chosen e.g. for distributive trade and insurance statistics. It could also be feasible for other services areas such as business or telecommunication services.

On the other hand there is a clear necessity for going much further in developing comprehensive functional statistics on specific activities such as e.g. the transport or the tourism sector.

Moreover functional statistics can also be part of a still wider approach. The most prominent example hereon are the statistics on the information society which is based on a horizontal approach not only limited to functional statistics.

The details listed for the various data sets are surely to be refined and expanded. Nevertheless some first orientation on possible structures and contents of these data sets is provided.

4.2. The use of harmonized data sets for annual enterprise statistics

The question arises now how these data sets could be used in the frame of the further development of EU enterprise statistics in the services area. According to the criteria illustrated in chapter 2.2 preferences on priority domains have already been expressed with reference to the particular services sectors.

The completed and harmonized data sets could be regarded as a harmonized framework with the option of applying a complete (or just part of a) set on a particular

domain (e.g. employment) if deemed necessary for the specific services activity in question.

This approach of applying harmonized data sets seems feasible in all domains with the exception of functional data. Methodological problems however could arise in the mixed market and non-market services such as health, education or other community, social and personal services (= Nace sections M to O).

The use of harmonized data sets over many services sectors leads to a big advantage: It increases the level of consistency and comparability over sectors and activities. Flexibility is provided by opening up the possibility of selecting data sets according to the needs of particular sectors.

In some way the strategy of using harmonized data sets over sectors and activities continues the basic thinking which has lead to the creation of annex 1 of the Regulation 58/97 concerning structural business statistics.

4.3.   Short term indicators

As said above much work is still necessary in order to arrive at satisfying EU short term statistics in the services area. Apart from the distributive trade sector as covered in the Regulation, operational short term indicators on additional services sectors cannot be expected in the medium term perspective of several years.

When tackling the pilot studies on short-term indicators the following thoughts are to be kept in mind:

   - The appropriate short-term indicators to be selected will thoroughly vary according to services sectors. Apart from the turnover and the number of persons employed other sector specific indicators are to be considered.

   - For a range of services sectors a short term monitoring does not seem necessary (e.g. health services or particular business services activities such as e.g. legal services). Partly this has already been considered in the draft regulation.

   - Often only a short term observation on a Nace level deeper than Nace division level leads to meaningful results. The Nace groups and classes of relevance for a short term observation have to be chosen with great carefulness.

   - In a first stage a quarterly observation of the short term effects in the services area might be sufficient. More ambitious frequencies on particular activities could follow.

In any case the balance between burdening enterprises and national authorities on the one hand and the benefit of the information for the range of users as pictured above on the other hand has to guide the work on short term indicators.

With regard to the still ample gaps on annual enterprise statistics in many services areas the development of those certainly have to be prioritized in the forthcoming years.

5.   Data collection strategy

In the medium term perspective of up to five years the development of statistics in general and of enterprise statistics in particular will face numerous constraints. Some of them are:

- The political sensitivity of burdening businesses and national administrations when collecting statistics will increase further.

- Diminishing resources at the level of national and international authorities will have to cope with steadily increasing needs for more detailed and more up-to-date information.

- National and international bodies will face more and more concurrence from non-official data producer.

- Despite the fact that the lack of comprehensive enterprises statistics in the services area often is regretted other statistical areas (such as statistics needed for stage III of the Economic and Monetary Union) will certainly gain more attention.

Considering these increasing constraints comprehensive annual and short term services statistics at European level probably cannot be created in the medium term. So alternative strategies have to be developed coping with these constraints.

Nearly all dimensions determining the statistical systems in the services area could be questioned:

a) The harmonized data sets as developed above, could be used in a very selective way. Apart from organizing complete surveys on all data sets of interest, particular sets or even parts of them could be selected when surveying enterprises.

b) Instead of addressing the full number of Member States only a sample of them could be chosen. It has to be assured that however representative results are achieved. With the perspective of an increasing number of EU Member States the selection of a sample of Member States only will increase in importance.

c) The selection process could of course also be applied to sectors or activities. Some additional flexibility would be gained if the sectors or activities to be investigated are only fixed with short notice.

d) Additionally the time ax has to be considered. For getting away from heavy annual inquiries multi-annual systems could be envisaged choosing the frequency in accordance with the activities investigated.

e) The time ax still provokes another thought: Like sometimes done in other statistical areas a complete surveying action at a certain reference period could then be followed-up by surveys on particular domains or questions when deemed necessary.

An extensive use of the flexibility created by these dimensions puts in danger the main aim of the EU statistics in general and EU enterprise statistics in the services area in particular: the production of harmonized Community statistics for a wide range of users.

So a balanced compromise has to be found between not endangering this principal aim on the one hand and caring for alleviation on the other hand. Often this will not be an easy task.

6. Business registers and enterprise statistics

One additional aspect which should be of high use for EU enterprise statistics in the services area has not yet been investigated: What could be the role of business registers in this context?

Complete and comprehensive business registers are the main reference for a number of basic statistical areas. Enterprise statistics in general and in the services area in particular are under those and therefore one of the most important users of business registers. A more extensive use of business registers should even lead to easier and cheaper business surveys.

The drawing up of business registers for statistical purposes is regulated at European level: the basic legislation hereon is the Council Regulation 2186/93 which - in the meantime - is to be fully implemented by Member States (if no derogation granted).

Taking up the statistical units 'legal unit', 'local unit' and 'enterprise', the register regulation requires the storage of a package of information. The most interesting entries for producing statistics hereon are:

Statistical unit	Register entry
Legal unit	Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons
	Legal form of the unit
	Name and address of any non-resident legal unit, other than a natural person, which controls the legal unit (optional)
Local unit	Activity code at the four-digit level of Nace Rev. 1
	Secondary activities, if any, at four-digit level of Nace Rev. 1 (optional)
	Size of labor force (according to size classes)
	Date of commencement of the activities
	Date of final cessation of activities

Enterprise	Activity code of the enterprise at four-digit-level of Nace Rev. 1 in which the principal activity or all the activities of the enterprise is or are included
	Secondary activities, if any, at Nace four-digit-level, under certain conditions
	Size according to the number of persons occupied (employed), also possible by allocation to size classes
	Date of commencement of the enterprise
	Date of final cessation of activities of the enterprise
	Net turnover from sales of goods and services, also possible by allocation to size classes
	Net assets /assets after allowing for depreciation less liabilities (optional)

Some of the entries find their equivalents in annex 1 of the Regulation 58/97 concerning structural business statistics (e.g. number of enterprises, local units, turnover). Other characteristics go beyond the basic information on enterprises as laid down in annex 1. The information on the commencement and the cessation of the statistical units and on secondary activities (regrettably only required on a optional base) are - under those - the most interesting ones.

On the base of the register entries not covered by business statistics, regular statistical information could be produced which could then complement the basic information as laid down in annex 1 of the Regulation 58/97. This use of the business register has one important precondition: The statistics compiled on the register entries have to arrive at a level of quality and timeliness which is comparable to the results produced in the frame of the Regulation 58/97.

A similar approach seems feasible as regards the complementing of information from sectorial surveys with data stored in sectorial sub-registers (e.g. for the distributive trade). Sectorial surveys could even get alleviated when using the information available from these sub-registers.

One major constraint might nevertheless effect the use of these sectorial sub-registers: As there is - in general - no harmonization of sub-registers at European level the conditions and use of these registers will vary according to Member States. Additionally methodological problems could arise.

7.   Conclusions

This paper tried to illustrate a medium term strategy for further developing the EU enterprise statistics in the services area. The picture drawn up basically refers to the situation at the level of the European Union where important progress has been reached with the adoption of the Regulation 58/97 concerning structural business statistics and the Regulation on short term indicators.

In the medium term of several years further efforts are necessary for complementing the information provided by the legal framework mentioned.