Generalitat de Catalunya
Departament d'Economia i Finances
Institut d'Estadística de Catalunya

Via Laietana, 58
08003 Barcelona
Telèfon (93) 412 00 88
Fax (93) 412 31 45

MARKET FOR ELECTRONIC INFORMATION SERVICES FOR PROFESSIONAL PURPOSES. SPAIN. 1994.

Version revised
November 1996

Study performed by *Institut d'Estadística de Catalunya* under the IMPACT 2 Programme as part of the MSStudy project. December, 1995

MSSTUDY

MARKET FOR ELECTRONIC INFORMATION SERVICES FOR PROFESSIONAL PURPOSES. SPAIN. 1994.

Executive Summary 6

1. Introduction 24

2. The Supply Side Survey 25
2.1. Response rates by type of suppliers 25
2.2. Characterization of respondents 27
2.3. Non-respondents and estimates of totals 28
2.4. Revenues 28
2.4.1. Overall figures by type of services/products 28
2.4.2. Analysis for different service/product categories 28
2.4.3. Geographical analysis 29
2.4.4. Analysis by subject area 29
2.4.5. Analysis by user groups 29
2.4.6. Analysis of users 30
2.4.7. Cd-roms sold 30
2.5. Volumes of business 30
2.6. Human resources 30
2.7. Cost analysis 31
2.8. Outsourcing activities 33
2.9. Ratios 33

3. The Demand Side Surveys 34
3.1. Information Brokers 34
3.1.1. Response rates 35
3.1.2. Characterisation of respondents 36
3.1.3. Non-respondents and estimates of totals 36
3.1.4. Revenues 37
3.1.4.1. Overall figures 37
3.1.4.2. Analysis for service/product categories 37
3.1.4.3. Analysis by type of customer 37
3.1.4.4. Analysis by subject area 37
3.1.5. Volume of business 37
3.1.6. Human resources 37
3.1.7. Analysis of budgets/expenditures 38
3.1.7.bis. Marketing activities planned by information brokers for 1995 38
3.1.8. Ratios 39
3.2. Intermediaries in Banks 39
3.2.1. Response rates 39
3.2.2. Characteristics of respondents 40
3.2.3. Non-respondents and estimation of totals 40
3.2.4. Revenues 40
3.2.4.1. Overall figures 41
3.2.4.2. Analysis for service/product categories 41
3.2.4.3. Analysis by type of customer 41
3.2.4.4. Analysis by subject area 42
3.2.5. Volume of business 42
3.2.6. Human resources 42

3.2.7. Analysis of budgets/expenditures 42
3.2.8. Ratios 42

4. The Interconnections of Supply and Demand 42
4.1. Aggregating supply and demand figures in a "balance sheet" 42
4.2. The interconnections 43

5. Possibilities for Further Market Development: The Potential User 43
5.1. Response rates 43
5.2. Structure for respondents 43
5.3. Information sources/media channels used 44
5.4. Information needs according to subject area 45
5.5. Barriers of use 45
5.6. Potential users and their knowledge about electronic information services 46
5.7. Potential users and their main reasons for not having used electronic information services 46
5.8. Intended use 47
5.9. Use of external electronic information services 47
5.10. Main reasons for using external electronic information services 48
5.11. Positive and negative experiences made with external electronic information services 48
5.12. Further use or improvement of offer 49

6. The Markets for Printed Information 49
6.A. Books and related printed materials 50
6.A.1. Overall revenues 50
6.A.2. Analysis by service/product categories 50
6.A.2.1. Publishers by size 50
6.A.2.2. Publishers by legal status 51
6.A.2.3. Continuity of the activity of the publishers 51
6.A.2.4. Titles (different ISBN numbers) 51
6.A.2.5. Languages 51
6.A.2.6. Multimedia books 51
6.A.2.7. Other media 52
6.A.2.8. Electronic publishing 52
6.A.3. Geographic distribution in Spain 53
6.A.4. Analysis by subject area 54
6.A.5. Volumes of business 54
6.A.6. Human resources 55
6.B. Journals and magazines 55
6.B.1. Overall revenues 55
6.B.2. Weekly supplements of newspapers 56
6.C. Newspapers 56
6.C.1. Overall revenues 56
6.C.2. Analysis by service/product categories 57
6.D. Other multimedia 57
6.E. Advertising 58

7. Information Services Institutional Infrastructure 58
7.1. Library services 58
7.1.1. Number of libraries 58

7.1.2. Equipment 59
7.1.3. Holdings and acquisitions 59
7.1.4. Interlibrary loans 60
7.1.5. Reprography 61
7.1.6. Human resources 61
7.2.1. Archives 61
7.2.2. News agencies 61
7.3. Publishers, booksellers, etc. 63
7.4. Professional associations 63
7.5. Education and training 66
7.6. Research and development 69
7.6.1. Plan Nacional de I+D 69
7.6.2. Plan Electrónico e Informático Nacional (Pein IV). 71

8. Technological Infrastructure 72
8.1. Telecommunications infrastructure 72
8.1.1. Basic telephone services 73
8.1.2. International communications 74
8.1.3. Mobile services 74
8.1.4. Data transmission 74
8.2. National computer industry 75
8.2.1. Hardware 78
8.2.2. Software 79
8.3. State of IT-applications in different parts of the economy and society 80
8.3.1. Videotex (Ibertex) 80
8.3.1.1. General overview 80
8.3.1.2. Volume of business 81
8.3.2. Audiotex 84
8.3.3. PC base 87
8.3.4. Teleworking 88
8.3.5. Distance learning 88
8.3.6. Home banking 88

9. Economic and political infrastructure 89
9.1. General economic situation 89
9.2. National information policy 90
9.3. National IT policy, especially in the area of telecommunications 91
9.4. Other relevant national policies 92
9.5. Handling of relevant legal and regulatory issues 92

10. Qualitative Assessments 92
10.1. General trends and developments in the target markets 92
10.2. Competitive strength of national suppliers in these markets 93
10.3. Competitive weaknesses of national suppliers in these markets 94
10.4. Competitive strength on the demand side of these markets 94
10.5. Competitive weaknesses on the demand side of these markets 94
10.6. State of development of the "information

superhighways" 94
10.7. State of development of "multimedia" 95
10.8. Socio-economic problems of the emerging "information society" (teleworking, distance learning, etc.) 96
10.9. Assessment of future prospects in the different areas 96

11. Conclusions 96

12. Statistical annexes 97

13. Appendixes
13.1. Organisations participating in the MSSTUDY
13.2. People interviewed
13.3. Questionnaires in national language
13.4. Special methodological issues
13.5. Bibliography

MARKET FOR ELECTRONIC INFORMATION SERVICES FOR PROFESSIONAL PURPOSES. SPAIN. 1994.

Executive Summary

1. Introduction

Previously to this MSSTUDY only the *Fundación para el Fomento de la Información Automatizada (Fuinca)* had studied the Spanish information market and produced statistics in the recent years.

In obtaining new data describing the Spanish situation, one of our main concerns has been to contrast our results with the ones published before by *Fuinca*. We should had to try to establish the continuity of the figures or to explain eventual discontinuities.

Indeed, the number of Spanish electronic information players found by *Fuinca* is much higher than the one that we found. The difference is due to the fact that *Fuinca* includes public administration services offered free of charge and counts as hosts, gateways and "information licensors" (information providers / database producers) very small organisations and services that in our opinion have a negligeable effect in the business volume of the market, most of them operating in the videotex area.

In MSSTUDY we have tried to be as much realistic as possible, taking into account only well established electronic information services that can be homologated with similar services in other countries, although some of them still continue to be quite small.

2. Supply side survey

We have covered well hosts retrospective, hosts real-time, electronic mail and cd-rom distributors.

It has been difficult to identify "other offline distributors", but most of them are supposed to be very small companies, not affecting very much the total business volume of the electronic market.

Also the response of the videotex sector has been quite poor, in spite of having invested in it a major part of our effort.

We have not got any responses from audiotex providers. Only we were able to get some rough estimations, not very much reliable, through desk research and telephone interviews.

Volumes of business

	M PTA	M ECU
Total business figure --including subsidies and other sales than electronic information-- of all the organizations selling any kind of electronic information products or services:	26,651	167.7
Revenue for electronic services:	17,370	109.3
Revenue for electronic services excluding subsidies (A):	11,871	74.7 (*)
Revenue of domestic suppliers (B):	8,915	56.1
Exports (C):	699	4.4
Imports (D):	2,956	18.6

Total market: A = B - C + D

(*) Please note that in this **total market** figure it is enclosed the estimated business volume of professional audiotex (K ECU 600); but, as it has not been obtained from the questionnaires, it has not been included in other tables and ratios of this study. In these other cases the total market figure of M ECU 74.10 is used.

We also wanted to compare our 1994 business volume of domestic services with that found by *Fuinca* in 1992 (published in *"Catálogo de Servicios Españoles de Información Electrónica Ascii. 1994"*). Besides the 2 years gap, our figure is higher mainly because we include the financial information services:

	M ECU	Staff
Fuinca (1992)	20.3 *	1,700
MSSTUDY (1994)	56.1	3,356

* 3.228 MPTA

Geographical analysis

Spain exports 5.59% of their electronic information services. Of this, roughly about a half is sold to Europe and the other half to South America.

Internally to the country, suppliers concentrate in Madrid and in Barcelona. In Madrid are located most of the ascii online services.

-Indicators

Export ratio (C/A):	5.59%
Import ratio (D/A):	24.90%
Export ratio of domestic suppliers (C/B):	7.84%

Analysis by subject areas

The main subject areas in terms of revenue are:

Subject	M ECU	%
Government information/political news	23.29	36.03
Finance/stock exchange/banking	12.31	19.05
Company profiles/credit ratings	9.03	13.97
Legal information	8.69	13.44
Scientific/technical/medical info	4.66	7.21
Further business and economic info	2.82	4.36
Other information	3.84	5.94
	64.64	100.00

(Number of respondents = 66)

Analysis by user groups

	M ECU	%
Service sector	46.49	62.53
Government and public administrations	12.96	17.43
Manufacturing industry	7.49	10.07
Universities, polytechniques, etc.	2.49	3.35
Others	4.91	6.59
	74.34	100.00

(Number of respondents = 69)

Cd-roms sold

Number of respondents (N) = 29
(Please note that in Table 1 only 19 of these cd-rom sellers have been considered "cd-rom distributors" as being this their main activity)

Number of titles	1,642	
Number of units	41,361	
-stand alone cd-roms	24,451	(N=17)
-networked cd-roms	317	(N=17)

Cost recovery

The cost recovery ratio for the various types of suppliers can be seen in the following ranking. Only the hosts real-time financial have had benefits (percentage market income/costs higher than 100):

	Market income	Total recovery (incl.subsidies)
Hosts real-time (financial)	112.30%	112.30%
Cd-rom distributors	88.59%	100.05%
Hosts real-time (other)	47.58%	97.44%
Hosts retrospective	43.54%	84.20%
Videotex services	29.69%	73.85%
Electronic-mail services	22.68%	32.35%
Other offline distributors	14.06%	100.24%
Total	**53.31%**	**93.44%**

The total cost recovery of the market, 53.31%, (excluding subsidies) results from:

$$\frac{\text{Market income M ECU } 74.10}{\text{Total costs M ECU } 139.00} = 0.5331$$

The above figures include very different kinds of companies, both public and private.

3. Demand side surveys

3.1. Information brokers (or intermediaries) in general

In Spain there are very few independent information brokers living out exclusively of their work as information intermediaries. Probably there are no more than 5. Instead, most of the searches for information are carried out in public administration agencies, research centres, university libraries, chambers of commerce, etc., that in general work on a not for profit basis. In some cases they are fully free of charge, specially if they use printed or cd-rom media or internal databases, or just charge the operational costs if they use online information sources.

We estimated the number of intermediary centres / institutions to be 1,300, but we only surveyed a sample of 290 of them that use electronic information sources.

Response rates

29% (84 questionnaires).

On the estimation of a total universe of 1,300 institutions (see above) and considering their main activity, with the questionnaires received we would have a representativity of:

Online	Offline	Print	Database prod./input
27%	25%	3%	53%

Overall figures

Only 56 of the 84 respondents charge for their services. These 56 centres earned M PTA 146.38 (M ECU 0.92) in total, less than their expenditure of electronic information services (M ECU 1.78) and much less than their total expenditure, including staff.

Therefore, on average, even the brokers that do not provide their services free of charge do not recover their operational costs.

Considering the total costs of the 84 respondents (M ECU 24.86), the **total cost recovery** of the intermediaries surveyed is:

0.92 / 24.86 = 3.70%

Ratio between electronic information expense and total budget:

2.09 / 24.86 = 8.41%

Human resources

The 84 respondent institutions account for near 34,000 people, whose information needs are served by 411 information especialists. 75 of the 84 respondents (89%) attend also external demands.

The ratio information professional / total staff is 1.21%

On average, the institutions have 4.9 information professionals (411 / 84).

If this ratio is extrapolated to the rest of the estimated number of Spanish information intermediary centres, the total number of information professionals in Spain working as intermediaries in organizations (90% of them open to external customers) could be 6,370.

3.2. Intermediaries in banks

Response rates

Questionnaires were sent to the headquarters of all the 98 banks and 60 savings banks existing in Spain, 158 in total. After not having received any answers, we began a systematic telephone call to all of them.

Most of the questionnaires had been lost "somewhere" in the organizations and we had to send them again. We did a second round of 95 questionnaires, after having identified contact persons through telephone calls. Finally, with deadlines approaching, we faxed 77 questionnaires again.

It has proven extremly difficult, almost impossible, to have a general overview of the information usage in an a particular bank, and much less in the sector in general.

The reasons are:

-Dispersion of information users in the bank. Nobody is specifically responsible for "information services" in a broad sense; nobody is able to provide a general picture. Each department of the bank contracts its own information services. Banks are end-users only.

-In some cases the Electronic or Data Processing Department controls some of the payments, but in general they have no idea of the characteristics of the information services that they buy for other departments.

-A very few banks keep a Studies Department, as it was quite frequent in the sixties and seventies. In some cases there is a small unit with 1 or 2 people producing a weekly newsletter for their clients. Their information needs are minimal as they only read the specialized business printed press and do not use electronic information sources.

-When a documentation centre exists, it is linked to a library and the information services provided are mainly the traditional ones only.

-Spanish banks do not perform information searches as intermediaries for companies, as it seems it is common in other European countries. Instead, this function is carried out mainly by the chambers of commerce.

All the above characteristics made us to change the design of this part of the MSSTUDY in that we have not considered banks as brokers but as simply as information users. Consequently, many of the sections of this chapter 3.2. (customers, revenues) have been omitted.

-As part of their "social activities" or through own foundations, some banks and savings banks have created libraries and documentation centres. Normally these centres are fully separated and the bank itself uses them very little, if something.

-Some savings banks foundations have created public library networks. The biggest of these networks was the one of *Caja de Ahorros y Pensiones de Barcelona ("La Caixa")*, with 100 libraries spreaded in Catalan villages, but since the last 2 years they are being transfered to the local governments --although *La Caixa* offers them quite good economic conditions, taking personnel charges for about 2 years, local governments are reluctant to accept them--.

-When approaching a bank about electronic information use, whether online or videotex, they tend to think only in the "home banking" services.

We have spent many hours at the telephone explaining to many people the kind of information services we were interested in. Our call was transfered from one extension to another, and at the end we only were able to get disappointing partial views.

In total we have received 7 questionnaires (4.4%).

Human resources

The total number of information specialists employed by Spanish banks it is estimated to be 6,162.

Probably, an important part of this personnel work on information services developped around the home banking central one. They are really information providers.

Analysis of budgets/expenditures

Estimated total electronic information expenditure in banks:

12,166 M PTA = 76.55 M ECU

4. Possibilities for further market development: the potential user

To study a further electronic information market development we were not confident of asking questions to "potential" users, because we believe that they do not consider themselves as information users. Simply they don't understand the questions about databases or information systems, as they are not able to imagine their potential usefulness. Information systems are a fuzzy and ethereal "need" for potential users. The evaluation of its usefulness can only be done by people who know them.

Therefore we discarded our first thought of sending questionnaires, f. i., to the first 500 Spanish companies.

Instead, we decided to ask the questions to the information professionals who are in the forefront interfacing with end-users. They are best situated to see how to catch a new user or why end-users don't use more electronic information sources or why don't use them for themselves.

Information sources/media channels used

We made two surveys of professional information intermediaries:

Survey A. Question 6.1. of the same questionnaire used to evaluate the intermediaries themselves. As it have been said in section 3.1., we got 84 answers.

Survey B. A short questionnaire e-mailed to the Spanish information science/librarianship electronic list *IweTel*, that has about 600 members, most of them resident in Spain. We got 51 answers.

In Survey B the respondents were asked to answer the questionnaire as if they were end-users, thinking in particular real cases they had in their job environment or describing the stand point of a relative that they knew well.

Therefore, both groups were composed of people that know and use the electronic information sources. In our opinion, given de difficulty inherent to ALL information systems, not only because of the technologies, but also for using their content, this is the best way to approach the problem.

It might be argued that information experts could score as less important the technical barriers, that they know well, than the others. This is true. But until certain point this possible bias can be counteracted. Much more problematic seems to us that end-users can evaluate information systems that they use rarely or don't use at all, not knowing properly what are they talking about.

Barriers of use

-Results survey A

Barriers to information usage	Score
Lack of awareness	284
Budget reasons	243
Prices for host services too high	224
Lack of experienced staff	187
Information required not available	186
Technical barriers	178
Cost-benefit relation inadequate	169
Network deficiencies	161
Staff costs too expensive	160
Resistance from management	151
Language problems	146
Lack of user-friendliness	145

Results survey B

	%
Lack of awareness	43
Information required not available	41
Technical barriers	31
Prices too high	31
Cost-benefit relation inadequate	22
Budget reasons	20
Language problems	16
Resistance from management	12

5. Data about some other related markets

-Printed information (books)

M PTA	M ECU	94/93
396,946	2,497.80	-2.26 %

Staff: 12,000

-Journals and magazines

The overall revenue of journals, magazines and weekly supplements in 1994 is estimated to be:

M PTA	M ECU
168,800	1,062.18

-Newspapers

In Spain are published 129 newspapers.
Total printing: 4,425,000 copies (annual increase 4.4%).
108 copies/1,000 inhabitants

Overall revenue:	M PTA	M ECU
	273,000	1,718.87
-Phonography	71,220	448.16
-Cinema (1993)	40,579	255.35
-Video	50,965	320.70

-Advertising

The overall expenditures on advertising in the different media were:

Media	M PTA	M ECU
Newspapers	180,952	1,138.65
Weekly suppls.	15,318	96.39
Journals	76,651	482.33
Radio	53,025	333.66
Cinema	4,650	29.26
TV	210,817	1,326.58

6. Libraries

In 1992 in Spain there were 6,207 libraries:

National	1
Main libraries (non special)	59
Public	3,992
Academic	648
Special	1,506

-Books

Holdings	Acquired en 1992
75,881,500	4,034,700

-Serials

Serial's volumes	Complete collections (different titles)	Incomplete collections (different titles)
4,893,600	396,200	220,000

-Human resources in libraries

Total: 17,240 persons (graduated 7,250; other: 9,990)

8. Professional associations

Membership of professional associations is estimated to be about 11,900, over a total number of 24,200 (i. e., about half of professionals are members of any of the existing 41 professional associations).

9. Education and training

Currently there are 9 librarianship and documentation university schools that operate under the law "real decreto" RD 3104/78 published on December 1st 1978, that teach middle degree (called also first cycle studies).

In 1992 (published in the Spanish official gazette *Boletín Oficial del Estado* on 27/08/92) the Spanish government approved the higher degree --second cycle or graduated-- studies "Licenciatura de Documentación". This new university degree can be obtained with 2 years of official studies. The access is direct for students that already have passed the middle degree in an EUBD, but graduated and middle-graduated students of other arts and sciences have to follow a "bridge" or adapting course before.

Three of the current schools began to teach graduate courses in 1994: University of Granada, University of Salamanca and University Carlos III of Madrid.

Also, another university without EUBD began to impart directly graduated studies in 1994: Universidad de Alcalá de Henares (near Madrid).

General overview

Some of the remarks that could be made about the information studies in Spain are:

-There are many more students in the schools than the market can absorb. So, except in Barcelona and Madrid, there are many jobless graduated people. Most of those in the other provinces go to Madrid to look for a job (much lesser to Barcelona because in Catalonia they would have the additional problem of having to learn Catalan language).

-Each year about 300 new middle-graduates exit the EUBDs, and about 200 people follow postgraduated courses, 40% of which are also looking for a job. This makes the figure of near 400 people trying to get a job in this field.

-To occupy the jobs there is very much competition from other professionals like computer scientists, journalists, philologists and historians, as well as from the rest of specialized careers (biologists, physicians, chemists, psychologists, etc.).

-Official studies in universities and schools tend to be too much theoretical, little technologically oriented and still too much focused in teaching out of fashion matters (cataloguing, book conservation, etc., -even paleography, philosophy, etc.). Of course, there are a lot of differences among EUBDs, being perhaps Carlos III of Madrid and Granada the most advanced ones.

-The new graduated studies are being very much requested, and the courses are crowded with jobless students, coming both from EUBDs first cycle and from other studies with difficult exit in the job market (Geography, History, Philology, etc.).

-There is a general lack of knowledge of the profession. Companies and organisations are not aware of the usefulness of the professionals, except for working in traditional libraries and archives.

10. Research and development

Research and development (R+D) in the information technologies in Spain are regulated by two governmental actions: the *III Plan Nacional de I+D* and *Plan Electrónico e Informático Nacional (Pein IV)*. The first is more oriented to basic and academic research and the second more to applied research.

The *III Plan Nacional de I+D* is divided into 12 Special Actions or Programmes, being 2 of them:

-Information and Communications Technologies (TIC)
-Telematic Applications and Services (AST)

AST Programme has an annual budget of 1,000 M PTA (6.29 M ECU), of which 60% are already committed to *RedIRIS*, the Spanish academic research network.

TIC Programme, more focused to hardware, signal processing, neural networks, remote sensing, and basic telecommunications technologies, has an annual budget of 3,500 M PTA (22.02 M ECU).

Pein is a part of the *Plan de Actuación Tecnológico Industrial 1994-1996* (Industrial technologic action plan) or *Pati*, devoted to information and communications technologies.

In 1994 *Pein* had a budget of M PTA 1,445 (M ECU 9.09) distributed as follows:

-Computer sciences and information	M PTA 580	(M ECU 3.65)
-Telecommunications	M PTA 865	(M ECU 5.44)

In 1995 the figures have been similar:

-Computer sciences and information	M PTA 530	(M ECU 3.33)
-Telecommunications	M PTA 870	(M ECU 5.47)

Important cuts were expected for 1996.

11. Telecommunications infrastructure

Most of the telecommunication services in Spain are provided by the State partially owned monopoly *Telefónica de España SA*. With total revenues of 10,000 M US$ (7,634 M ECU) *Telefónica* is the 17th in the world ranking of telecommunications companies.

Competition was open in 1993 for international data transmission, and in 1995 a second GSM operator (*Airtel*) has begun to market its services.

	1993	1994	94/93
Employees	74,340	72,207	-2.86
Revenue	1,220,084 M PTA 7,677 M ECU	1,283,536 M PTA 8,076 M ECU	5.20
Net benefits	84,837 M PTA 534 M ECU	91,734 M PTA 577 M ECU	8.13

-Basic telephone services

	1993	1994	94/93
Lines	14,801,800	15,342,100	3.66%
Lines/100 inhab.	36.4	37.5	3.02%
Urban digitization		47.8%	
Inter-urban digitization		91.1%	
Isdn-Basic access		26,636	
Isdn-Primary access		2,009	

Isdn service in 1994 covered 70% of the Spanish provinces.

-Data transmission

Iberpac, the X.25 Spanish packet switched network, growth 11.1% with the addition of 51 new nodes. The number of connections rised 6.4%.

In April 1994 dial-up X.28 users enjoyed important improvements awaited for a long time: a unique national number to have access to *Iberpac* and increased speed to 9,600 bps. Up until then the maximum available speed was 1,200 baud and users had a NUI valid only for one local node.

At the same time, 8 competitors to *Iberpac* providing access to international hosts began to announce their services both in journals and newspapers.

The best situated is *BT-Global Network Services*, because in 1993 this company had bought the private network of *Banco Santander*, with nodes in 35 Spanish cities, although not all of them very powerful (some of them have few ports).

Data transmission has an annual business value of 50,000 M PTA (314.63 M ECU), equivalent to 8% of the telecommunications total market.

12. Computing industry

In 1994, the Spanish computing industry seemed to recover from its recent years crisis, and after having increased with a rate of 9.2% in 1994, it was likely that in 1995 would overpass the historical maximum achieved in 1991, reaching a total sales volume on 1,000 billion pesetas (10^{12} PTA).

Nevertheless, data known at the closing date of this MSSTUDY shows that the optimistic projections --due mainly to the particularly good results of the last quarter of the year, usually the best one in this sector--, were erroneous. The growth in the first quarter of 1995 has been 4.3% and in the second quarter only 2.2%. There is a hope that the 4th quarter of 1995 will see a positive reaction, based mainly in the expected sales increase of personal computing.

The exact figure in 1994 was 933,383 million PTA, that it is only 5.2% higher than the one obtained five years ago.

Spain accounts for 4.1% of the European Economic Area's computing industry.

13. Videotex (*Ibertex*)

It is difficult to ascertain both the current volume, the potential use and the possible evolution of the Spanish videotex (offered under the service name *Ibertex* by Telefónica).

The general opinion is not very much in favour of it, because in previous years it was announced publicly too much without being able yet to offer really attractive services. It sounds now like "public administration maquettes for official inaugurations" and any eventual new services have to overcome a high amount of incredulity.

Nevertheless, and in spite of being an "old" technology, its noticeable penetration achieved in some narrow segments might allow it to continue being used for some years, unless another option be seen as a clearly better alternative.

Videotex services in Spain reached a third or fourth place in the European ranking, after France and Germany, and in a similar situation as The Netherlands and Italy. This relative flourishment was possible thanks to the funds given by the EU's *STAR Programme (Specialized Telecommunications for the Advance of Regions)*, administered by the Spanish government (*DG de Telecomunicaciones* or *DGTel*, *Ministry of Transports and Telecommunications*, *Moptma*), and the own promotion of *Telefónica*. But all that was not enough to make of it a successful system.

Our feeling is that if *Telefónica* had implemented the improvements of May 1994 only two years before (2,400 - 9,600 bps and 80 columns, conditions which had been asked repeteadly to *Telefónica* by banks and other information/service providers), *Ibertex* would had been able to really take off. The improvements arrived too late.

We were not able to get figures comparable to those given by *Telefónica* and widely echoed by the *Asociación de Usuarios de Videotex de España (Auve)*:

FIGURES CORRESPONDING TO 1994

Number of videotex calls:	11,476,762
Number of hours:	1,541,796
Information/services servers:	600
Users/clients:	1,200,000
Number of terminals:	575,000

After some calculations that we made, the total revenue of the Spanish videotex professional sector would be:

5 M ECU x 0.4 = 2 M ECU

In our survey we got the figure 1.438 M ECU, i. e., a representativity in terms of revenue of 1.438/2 = 72%.

14. Audiotex

In Spain "audiotex" has a much broader meaning that simple voice information. Audiotex is synonimous to premium rate services, including chat line, party line, erotic conversations, etc.

Under this heading there are offered many types of information services like general news, sport news, weather forecast, awakening service, time, etc., most of them non professional.

Volume of business

It has been extremely difficult to get data or even an estimation of the audiotex market in Spain.

The total sales figure for the telephone company was M PTA 3,800 (M ECU 23.91), approx. half of this having been paid to information/service providers (M PTA 1,900 = M ECU 11.96).

The number of users of 906 is not known, but it seems that 903 had about 50,000 subscribers in 1994.

Some providers of professional information services are awaiting for the long time ago announced new number 9065, that would cost PTA 500/min (ECU 3.17/min) to end users. This tariff would allow them to make some adequate profit.

After having held various telephone interviews with various audiotex providers and the two audiotex associations existing in Spain (*Asociación Española de Proveedores de Audiotex, Aespa*, in Madrid, and *Asociación de Proveedores de Audiotex, APA*, in Barcelona), we estimated that the volume of business of the profesional information services in audiotex is very low, probably only about 5% of the total. Therefore:

Estimated audiotex professional information market in 1994.

M ECU 11.96 x 0.05 = M ECU 0.6

15. PC base

In industries	2,135,000
In homes	600,000
Total PCs installed	2,735,000

16. Qualitative Assessments

General trends and developments in the target markets

Some online ascii databases have improved slowly in the last years, but others that in its begining had some expectations to become something more than a maquette, almost have desappeared, not having been able to afford for the production plus the distribution costs.

Only very few online ascii databases are really attractive to users for being both exhaustive and updated.

The creation of *Asedie*, the Spanish association of distributors of electronic information three years ago, has begun to give tangible results and has helped very much to reactivate the market of the online and cd-rom media.

After the frustrating videotex service experience, staying in place but languidishing during 13 years, currently there is a lot of hope for WWW based services, centralized by the new tcp/ip access service *Infovía* of *Telefónica*.

Also a trend is perceived among publishers to timidly enter in the multimedia publishing, as the cd-rom readers base is increasing. Publishing is traditionally a quite strong industry in Spain, with noticeable exports to Latinamerica.

Spain has been always behind in information usage, in comparison for instance to its economic development.

It is not expected a short term migration to the newest technologies of the traditional databases produced by the Spanish administration --that dominate the situation--, nor the ones produced by semi-public organizations (chambers of commerce, development agencies, etc.), because the Spanish government will apply important budgetary restrictions in order to reach the necessary values of the economic convergence indicators of Maastricht.

Some organizations have already announced that they are bound to the old equipment that they have at present, and can not develop new more user friendly systems nor improve dramatically the contents of their databases.

The prospects and the hope are based mainly on the WWW, as it was said, and the private sector, that will re-convey and absorb the old videotex work force and resources, but with a new sap and with a much more mature environment. It could push the Spanish information industry to the level it has to have, in accordance with the other national industries and with the GNP and the population.

Spain should play a more decisive rol in providing electronic information products to other Spanish speaking countries, not forgetting the Spanish speaking population in the United States. This will be favoured by the telecommunications links and the general globalization of the markets.

Competitive weaknesses of national suppliers in these markets

We could say that there is too much involvement of the public administrations in the database production and distribution, but really we should say that there is too little involvement of the private sector.

Refering to the public sector information services, the more tangible, there is a lack of a general policy in order to avoid duplication of efforts, to fill the information gaps and to make available the row data to private companies in order they can produce better value added information products. Public administrations are not aware of making profit of the information they produce and very costly databases and technical reports serve only to a few politicians or officials.

There is not a serious commitment in public administrations to provide regularly updated data.

State of development of the "information superhighways"

There is an increasing number of Internet access providers and Web pages makers. In 1994 there were only *RedIRIS*, the academic and R+D network, and three private companies. In December 1995 the list is about 25.

In Summer 1995 *Telefónica* began the tests of its new service *Infovía*, a national tcp/ip network offering access to information and service providers, as well as to Internet providers (*Telefónica* itself do not give Internet access to individuals, only to intermediary companies). *Infovía* was launched officially on December 15th 1995.

End users will benefit very much of the service because it costs like a local call (less than 1 ECU/hour) and are able to dial the same telephone number throughout the country (055).

Telefónica gives access to the existing videotex services through *Infovía*, but while finishing this report still there are some pending questions in relation to this service. Other telephone companies already operating in Spain in data transmission complained about this monopolistic situation.

Multimedia

Various studies evaluated the number of cd-rom readers in Spain at the end of 1994 between 60,000 (*Matra-Hachette Multimedia*) and 90,000 (*BSI Multimedia*), but it seems that finally the real figure was higher than forecasts: about 100,000 units.

In the Spanish business journal *Cinco Días*, 19 October 1995, p. 23, a report of **Enrique Domingo** informs about the following *BSI Multimedia* estimates for the end 1995:

Increase of multimedia software:	1,200%
Increase of cd-rom readers sales:	315%

Total number of cd-rom readers sold at the end of 1995:

315,000 (estimation)

During *Telecom'95* in Geneva (Switzerland), October 1995, the *International Telecommunications Union (ITU)* presented its *Report on the World Development of the Telecommunications* with a ranking of countries ordered according their multimedia development capability.

Based on the following Spanish ratios per 100 inhabitants:

-Telephone lines = 37.1
-TV sets = 42
-PCs = 7

the Report concludes that Spain is the 10th among the European countries in multimedia and the 17th in the world.

MSSTUDY

MARKET FOR ELECTRONIC INFORMATION SERVICES FOR PROFESSIONAL PURPOSES. SPAIN. 1994.

1. Introduction

This document is the Spanish contribution to the Member States Study (MSSTUDY) or "Study for assessing the situation of the markets for electronic information services for professional purposes in the Member States of the European Economic Area".

Taking into account that this ***Final National Report on the Electronic Information Market in Spain*** is intended for integration with the rest of the reports from other countries participating in MSSTUDY, the authors have kept as much as possible the original report structure proposed by the Co-ordinating Team under point "5.3.5. The Contents of the National Reports" of the "Manual on Assessing Markets for Electronic Information Services for Professional Purposes", by Werner Schwuchow, Dr. Willi Bredemeier and Dr. Sabine Graumann, DGD, Frankfurt am Main, October 1994, p. 78-81. This means that, having adapted the structure to the Spanish situation, some sections might contain only references to other sections.

For the above reason, in this introduction we treat only aspects that are differential to Spain and that can be interesting to the Coordinating Team and to the Information Market Observatory (IMO), Impact Programme, DGXIII and European Commission responsibles. Complete description of aims, objectives, scope and methodology, common to all the EEA countries, will be done only in further versions of this Final Report written in Spanish, addressed to the interested Spanish general public.

In general terms we have followed the methodology of the "Manual". We have benefitted from the previous studies and catalogues made by the Spanish *Fundación para el Fomento de la Información Automatizada (Fuinca)*, and other works like *"La informació electrònica a Catalunya"* by Ernest Abadal and Maria-Josep Recoder, 1991, (see bibliography under appendix 13.5), and also our own work gathering data about the Spanish usage of foreign online hosts (1984-1987). We have investigated the concordance --or not-- between the figures of the above mentioned studies and our findings made through the questionnaires.

Also we have encountered some good studies and statistics already available on other side-markets like printed, computers, telecommunications, libraries, etc. (again, see the bibliography appendix).

More detailed methodological aspects will be treated in each particular chapters.

2. The Supply Side Survey

2.1. Response rates by type of suppliers

See Tables 1 and 2

Previously to this MSSTUDY only the *Fundación para el Fomento de la Información Automatizada (Fuinca)* had studied the Spanish information market and produced statistics.

Fuinca published valuble reports about the information industry as chapters of the two catalogues *Catálogo de servicios españoles de información electrónica ascii. 1994* and *Catálogo de servicios Ibertex. 1995* (see Bibliography).

Apart of these, the latest data available gathered by *Fuinca* are correspond to 1992 and are included in the *Fourth co-ordinated survey of EU-based organisations engaged in the provision of electronic information services and products for professional users in 1992*, carried out with the support of the *DGXIII* of the Commission of the EU and co-ordinated by the *European Information Industry Association (Eiia)*, February 1995.

Fuinca figures (1992):

Table 1A: Analysis of response: relevant organisations contacted

Host/ Gateways	CD Publishers/ Offline distrib.	Information Licensors	Audiotex Services	Total
183	46	307	20	428

The figures reported by Fuinca are so optimistic in comparison to the rest of Europe, that even the writers of the survey have been compelled to comment on them:

"In this connection, one possibly distorting factor should be mentioned, namely the figures relating to Spain. It should be stressed that the validity of the Spanish results is in no way being called into question --on the contrary, figures from Spain have always been considered, throughout the series of co-ordinated surveys, to be wholly reliable and have always been provided on time and in a professional manner.

The possible anomaly referred to concerns solely the 'response' rate, where it is evident that information (probably in aggregated form) on a large number of (probably small) organisations was obtained 'in bulk' via the national public telecommunications operator. Accordingly, it would not be entirely true to say that all these organisations were, in the strict sense of the word 'respondents'. There is, however, no point in seeking to factor out the Spanish figures because, in looking back over previous years' data, it would seem that a similar (perfectly legitimate) methodology was pursued in at least one previous year".

Indeed, the figures found by *Fuinca* are much higher than the ones that we found. The difference is due to the fact that *Fuinca* counts as hosts, gateways and "information licensors" (information providers / database producers) very small organisations and services that in our opinion have a negligeable effect in the business volume of the market, most of them operating in the videotex area.

Along the years, *Fuinca* has always been characterized for having a very good willingness in considering even the smallest and tender new databases and information services to be included in their catalogues and studies, probably with the purpose of offering a more deep information on every existing initiative and, doing so, for trying to encourage the market as well. In the information field it happens frequently that many projects and efforts are not sustained because entrepreneurs had underestimated the difficulties of producing and selling information. As a result we have seen many projects sinking a few months after having been launched. Many of them continue existing only as a sort of maquette, waiting for an eventual future availability of budget that would allow them to go ahead with their project.

This has happen to a lot of small companies and public administration departments in Spain, specially as a result of the frustrating *Ibertex* (videotex) operation --a service that since its lauching 13 years ago has suffered of a lack of coordination and of a real willingnes from its operator (*Telefónica*, the Spanish PTT) to be pushed up enough until it had reached a general acceptation.

In MSSTUDY we have tried to be as much realistic as possible, taking into account only well established electronic information services that can be homologated with similar services in other countries, although some of them still continue to be quite small.

We have covered well hosts retrospective, hosts real-time, electronic mail and cd-rom distributors.

It has been difficult to identify "other offline distributors", but most of them are supposed to be very small companies, not affecting very much the total business volume of the electronic market.

Also the response of the videotex sector has been quite poor, in spite of we having invested in it a major part of our effort.

We have not got any responses from audiotex providers. Only we were able to get some rough estimations, not very much reliable, through desk research and some telephone interviews.
See section 8.3.2. "Audiotex"

In total we got 69 full usable responses from suppliers.

2.2. Characterization of respondents

	Public Adm.	Semi-public	Private	Total
Suppliers	4	8	57	69

Table 3.1.

Suppliers have been classified according to their main activity in the electronic information field. Many of them produce printed information products and also carry out other activities. Some produce or distribute various types of electronic information.

Each column of Table 3.1 correspond to a supplier type. The rows are:

-Total number of employees of all the organizations classified under the supplier type.

-Estimated percentage of employees dedicated to the main activity. In some cases it has been quite difficult to assign correctly the amount of staff to one activity or to another. The matter has been discussed specially with some large respondents (e. g. newswires) in order to get as much real as possible figures.

-Total revenue from electronic information products and services of all the organizations classified under the supplier type. Here there are included also subsidies.

-Estimated percentage of revenue from **all types of electronic information products** over the **total** revenue. It must be underlined that these figures were estimated by the suppliers and reflect the "intensity" or "focusing" of their businesses in electronic information services/products. F. i., 80% means that on average this type of suppliers have 80% of their business based on electronic information services/products. See also section 2.4.1.

From bottom line percentages of Table 3.1 it could be infered the total business volumes of the organizations, but this would not yeld significative results as the ways how organizations consider their electronic information units are not homogeneous. According to the degree of autonomy they have sometimes they treat the unit as a section, a department, a division, a subsidiary, etc. There were some subjectivity of the respondents as well.

Nevertheless, having said this, we have calculated the theoretical total business figure --i. e., the one including subsidies and other sales than electronic information-- of all the organizations:

$$\frac{109,256,819}{0.6516} = 167.7 \text{ M ECU}$$

Total revenue of all the Spanish electronic information suppliers by all concepts, including non-electronic products/services.

As it can be seen in the Table 3.1, the economic figures are available for a higher number of suppliers than the employees figures, due to the fact that some respondents are providers not based in Spain. See "Human resources" in section 2.6.

2.3. Non-respondents and estimates of totals

Please see section 2.2.

2.4. Revenues

2.4.1. Overall figures by type of services/products

In Table 3.1: "Characterization of Full Usable Respondents" total revenue figures for **electronic information services/products** for each type of supplier already were given.

Table 5.1: "Overall Revenues (ECU) by Type of Suppliers and Type of Services/Products", provides some more detail according to the type of electronic services/products. Here the total of the electronic information services = 100%, as it was stated in the questionnaires (question 6.2).

Nevertheless, some of the services/products refered in Table 5.1 are non-electronic but they are closely related or based in electronic information. For exemple, in Table 5.1 there are "Printed products" and "Other services/products" (i. e. document delivery, consulting, training, etc.), that all have been considered as "electronic". They account only for:

$$\frac{3,194,311}{74,341,724} = 4.3\% \text{ of the total.}$$

It must stressed that figures in Table 5.1 are based on the question 4.3.1 of the questionnaire, i. e., only sales or business volumes, **excluding subsidies**. This is the reason why the values of the bottom line of Table 3.1 are higher than those of this Table 5.1.

See comments on the "subsidy" concept in Section 2.7. "Cost analysis".

2.4.2. Analysis for different service/product categories

See Table 5.2

2.4.3. Geographical analysis

Table 6

Spain only exports 5.59% of their electronic information services. Of this, roughly about a half is sold to Europe and the other half to South America.

Internally to the country, most of the suppliers are concentrated in Madrid and in Barcelona. In Madrid are located most of the ascii ones.

2.4.4. Analysis by subject area

Tables 7.1 and 7.2

The ranking of subject areas in terms of revenue is:

Subject	M ECU	%
Government information/political news	23.29	36.03
Finance/stock exchange/banking	12.31	19.05
Company profiles/credit ratings	9.03	13.97
Legal information	8.69	13.44
Scientific/technical/medical info	4.66	7.21
Further business and economic info	2.82	4.36
Statistical information	0.38	0.59
Patent information	0.37	0.57
Travel information	0.28	0.44
Other information	2.81	4.34
	64.64	100.00

(Number of respondents = 66)

2.4.5. Analysis by user groups

	M ECU	%
Service sector	46.49	62.53
Government and public administrations	12.96	17.43
Manufacturing industry	7.49	10.07
Universities, polytechniques, etc.	2.49	3.35
Private households	2.22	2.98
R & D	1.40	1.88
Primary and secondary schools	0.35	0.46
Others	0.94	1.27
	74.34	100.00

(Number of respondents = 69)

2.4.6. Analysis of users

See Table 8.3: "Number of users by type of services/products"

There is an overlap among the figures of this table, both in the columns (same users using different services of a given supplier) and in the rows (same users using different suppliers).

According to the data gathered, in 1994 in Spain there were:

Users of	
-hosts retrospective services	10,861
-hosts real-time	7,309
-videotex	5,684
-other online services (these are mainly e-mail users)	2,899
Total	26,753

It is impossible to know how much the user's overlap is.

2.4.7. Cd-roms sold

Number of respondents (N) = 29
(Please note that in Table 1 only 19 of these cd-rom sellers have been considered "cd-rom distributors" as being this their main activity)

Number of titles	1,642	
Number of units	41,361	
-stand alone cd-roms	24,451	(N=17)
-networked cd-roms	317	(N=17)

See also section 6.A.2.8. "Electronic publishing" for the Spanish official Isbn figures.

It is difficult to compare any of the figures of both sections. Both Isbn and titles figures mix cd-roms and diskettes, and both include non professional information.

The only figure that can provide us some idea is the number of Spanish cd-rom publishers that asked for one or more Isbn numbers: 20.

2.5. Volumes of business

We have taken "volumes of business" equal to "revenues".

2.6. Human resources

We decided to split the information suppliers in two groups: the ones with **zero** employees in Spain and the rest. For instance (see Table 3.1), out of 17 retrospective hosts responses, 2 do not have neither official nor unofficial agent, representative, trainer, sales, administrative person, etc. in Spain.

If wanted to be calculated, the ratio revenue/employee always will result in an optimistic figure, as we have considered foreign companies that only have a few staff members in Spain as "complete" companies.

In our survey we have obtained the total figure of 1,678 employees. Taking into account our total no-response rate of 1- (69/138) = 0.5, (see Table 1), it could be estimated that in Spain there were in 1994:

$$\frac{1,678}{0.5} = 3,356$$ employees in the electronic information industry.

Table 4: "Human resources (in full-time equivalents)"

In this table only employees directly related to electronic information have been taken into account. These are:

$$\frac{1,448.86}{1,678} = 86.34\ \%$$ of the total.

This figure figure has been obtained after questions 3.1 and 3.2 of the questionnaire.

Please note that Table 4 has been obtained from question 3.3 of the questionnaires. The bottom row figures are smaller than the ones in the first row of Table 3.1 because some respondents did not provide this personnel breakdown.

By extrapolating to the Spanish total, the number of employees in jobs directly related to electronic information is:

3,356 x 0.86 = 2,886

See also section 7.4. "Professional associations".

2.7. Cost analysis

Table 10.1: "Cost recovery (in %)"
Table 10.2: "Market income, subsidies and investments (in ECU)"

A factor that can introduce some ambiguity in this Study is the concept of "subsidy". In principle it seems associated only to private companies that receive money from public administrations, but not to public institutions or government agencies. To complete Table 10.1 we have included together with "Public subsidies" also "Public expense", i. e., the costs not recovered by the public institutions.

In our study we have included many information services of the public administration, but only the ones that recover part of their costs with their fees.

This table shows that about 39% of all electronic information costs in Spain are covered by the public administrations. It must be beared in mind that in this figure there is all the range of services included, from the healthy private financial information services to the almost free government services, not forgetting .../...

.../... the foreign hosts that count very much to raise the market income figure in Spain. Not knowing the operational costs of those foreign services in Spain, we toke them equal to their sales.

Newswires receive almost automatic subsidies from governments for the amount of their loses which are refered as to "sales to the government". As they are like private companies, we have treated such items as normal sales.

The cost recovery ratio for the various types of suppliers can be seen in the following ranking. Only the hosts real-time financial have had benefits (percentage market income/costs higher than 100):

	Market income	Total recovery (incl.subsidies)
Hosts real-time (financial)	112.30%	112.30%
Cd-rom distributors	88.59%	100.05%
Hosts real-time (other)	47.58%	97.44%
Hosts retrospective	43.54%	84.20%
Videotex services	29.69%	73.85%
Electronic-mail services	22.68%	32.35%
Other offline distributors	14.06%	100.24%
Total	**53.31%**	**93.44%**

The total cost recovery of the market, 53.31%, (excluding subsidies) results from:

$$\frac{\text{Market income M ECU } 74.12}{\text{Total costs M ECU } 139.01} = 0.5331$$

As it was told, the above figures include very different kinds of companies, both public and private.

We have created Table 10.2 giving further detailed data by each type of supplier:

-Market income (=bottom row of Table 5.1): overall revenues (sales).
-Public subsidies: single payments of governments to private companies.
-Public expense: costs not recovered by public and semi-public institutions.
-Investments: costs not recovered by private companies. Negative investments in the Table mean benefits.

The last row of Table 10.2 is equal to the last one in Table 12.1: "Analysis of costs (ECU)".

Costs breakdown

Table 12.1 "Analysis of costs (ECU)"

Table 12.2 "Analysis of costs (%)"

Both tables are divided in two parts: by type of cost and by type

Costs breakdown

Table 12.1 "Analysis of costs (ECU)"

Table 12.2 "Analysis of costs (%)"

Both tables are divided in two parts: by type of cost and by type of activity.

In general terms, the more significative data to be underlined are:

-Cost breakdown by type of cost

Staff	52.30%
Investments (hw, sw)	36.08%
Other costs (marketing, royalties, providers, etc.)	11.63%
	100.00%

-Cost breakdown by type of activity

Data gathering, processing, editing	56.39%
Technical operations	29.59%
Marketing	9.50%
User support, training	3.55%
Other activities	0.98%
	100.00%

Profitability

See tables.

Table 11.1: "Profitability (no. of answers) - in terms of operating costs".

Table 11.2: "Profitability (no. of answers) - in terms of full costs".

2.8. Outsourcing activities

Table 13

Adding the activities done both inhouse and outside, the ones more outsourced in 1994 were:

Software development and maintenance	71%
Technical operations	54%
Data gathering/processing/editorial	49%
Marketing	18%
Public relations	8%

2.9. Ratios

See ratios under each section.

3. The Demand Side Surveys

3.1. Information Brokers

In Spain there are very few independent information brokers living out exclusively of their work as information intermediaries. Probably there are no more than 5. Instead, most of the searches for information are carried out in public administration agencies, research centres, university libraries, chambers of commerce, etc., that in general work on a not for profit basis. In some cases they are fully free of charge, specially if they use printed or cd-rom media or internal databases, or just charge the operational costs if they use online information sources.

Therefore, the public administration participation distorts the situation (as it does in the supply side), and we can not at all speak of a free market economy.

Which "universe" should we choose for the MSSTUDY?

According to *Instituto Nacional de Estadística (INE)* --see section 7.1. "Library services"--, in Spain there are:

Large libraries, non specialized,	60
University libraries	648
Special libraries:	
Ministries	201
Research centres	185
Professional associations	230
TOTAL	1,324

To this amount we should substract some libraries that are private or not open to the general public and add a few information centres that do not relate to any libraries. Also a significant part of the existing 3,400 public libraries act as intermediaries as well.

Finally, we estimated the number of intermediary centres / institutions to be 1,300.

The above universes perhaps will be used in a future operation. At present, we judged them too ample for our possibilities, and therefore we opted for a sample: the centres listed in the *Directorio de centros de acceso a bases de datos*, produced for internal purposes in our organisation (*Institut d'Estadística de Catalunya*) in 1991. This had the advantage of gathering **quite exhaustively** the pioneering centres using online or cd-rom media in Spain.

This sample has a clear bias in favour of the electronic information media to the detriment of the traditional printed media. Many of the rest of centres probably have not begun to use such media yet.

Nevertheless, it is likely that among these centres are present most of those that charge all or part of the costs for their information services, consequently giving us a better figure of the real **market**. Almost none of the centres that only use printed media charge for their services.

Contrary to the providers or supply side of this MSSTUDY, we have taken into account respondents that do not charge at all for their services.

3.1.1. Response rates

Table 14.

Considering the chosen sample of 290 intermediary or broker centres with some kind of use of electronic information media known beforehand, we got a response rate of 29% (84 questionnaires).

We have not worked with a segmentation of the institutions according to the main information source media that they use (online, offline, printed) or the main activities (training, consulting, database production, software distribution) as it was suggested in the MSSTUDY methodology. After having observed the questionnaires we realised that most of the centres use various media in similar proportions. We thought that the segmentation would be artificial and not corresponding to the reality.

Moreover, most of the consulting and software distribution activities are carried out by information providers.

Nevertheless, and simply as an exercise, we have tried to classify the 84 institutions according to their main expenditure in each media and the type of services provided:

Online	Offline	Print	Database prod./input
19	15	34	16

On the estimation of a total universe of 1,300 institutions (see above), with the questionnaires received we would have a representativity of:

27%	25%	3%	53%

Table 15: "Representativity (in %)"

In this table two other representativity values are presented:

1. Full usable responses over the number of responses.
The percentages are high because the incomplete questionnaires were completed later with telephone calls. Most of the "not

usable" responses are really late arrivals.

2. Representativity of the **revenues** of the respondents over the total population.

3.1.2. Characterisation of respondents

	Public.Admin.	Semi-public	Private	Total
Brokers	56	12	16	84

As it was said, most of the information brokers of the sample are non for profit. We have included both those that charge for their services and those that offer their services free of charge, as a public service.

75 of the 84 respondents (89%) accept external clients.

Table 16: "Kind of services offered"

The ranking of services offered by the respondents is:

Offline info. search.(cd-rom)	70	83.3%	
Online information searching	68	81.0%	
Library/archive searching	67	79.8%	
Training/further education	45	53.6%	
Database production/input	42	50.0%	
Consulting	37	44.0%	
Document delivery	15	17.9%	(*)
Distribution of software	7	8.3%	
SDI	6	7.1%	(*)
Other information services	13	15.5%	(**)

(*) These services were not proposed in the questionnaire. If so, probably their rate would had been much higher.

(**) Some of this answers could be considered as consulting: looking for partners, exports promotion, electronic mail information service, BBS, WWW, information systems design / implementation, computer programming, technological socio-economical and legal states-of-the-art, competitors analysis, etc.

Others are also: conference organization, printed bulletin, information digests, lending, selected mailings, publishing, audiovisuals, etc.

3.1.3. Non-respondents and estimates of totals

Please see sections above.

3.1.4. Revenues

3.1.4.1. Overall figures

Only 56 of the 84 respondents charge for their services. These 56 centres earned M PTA 146.38 (M ECU 0.92) in total, much less than their expenditure of electronic information services.

Therefore, on average, even the brokers that do not provide their services free of charge do not recover their operational costs.

See section 3.1.7. for expenditures.

3.1.4.2. Analysis for service/product categories

See Table 27: "Analysis of revenues in 1994 of information brokers by type of services offered".

3.1.4.3. Analysis by type of customer

See Table 28: "Customers of information brokers".
and Table 29: "Analysis of external customers by sectors of the economy".

Table 28 shows that in our sample, on average, the number of internal customers (53.49%) is quite balanced to the number of external customers (46.51%).

Both groups tend to increase in the 75% of cases.

3.1.4.4. Analysis by subject area

See Table 19.

3.1.5. Volume of business

See sections 3.1.4. "Revenues" and 3.1.7 "Analysis of budgets / expenditures"

3.1.6. Human resources

Table 20.

These figures have to be taken with some caution as some times it was not very clear wheather the respondents provided the data of the whole organization or only of a more or less independent unit.

The 84 respondent institutions account for near 34,000 people, whose information needs are served by 411 information especialists. As it was said under 3.1.2., 75 of the 84 respondents (89%) attend also external demands.

The ratio information professional / total staff is 1.21%

On average, the institutions have 4.9 information professionals (411 / 84).

If this ratio is extrapolated to the rest of the estimated number of Spanish information intermediary centres (see section 3.1.), it would allow us to calculate the approximate total human resources.

Total number of information professionals in Spain working as intermediaries in organizations (89% of them open to external customers):

1,300 centres x 4.9 = 6,370 information professionals

See also section 7.4. "Professional associations".

3.1.7. Analysis of budgets/expenditures

Table 22

Please note that the "Total budget of company / organization" and "Expenditure for using electronic info services" refer to the budget of the information centre or department, library, documentation unit, etc.).

The average ratio between the electronic information expense and the total budget (including staff costs) is:

2.09 / 24.86 = 8.4%

See also:

Table 23: "Allocation of total budget to different functions (in %)",
Table 24: "Expenditures of information brokers for electronic information services by type of product in 1994 (estimation in ranges)", and
Table 25: "Expenditures of information brokers for electronic information services by subject areas in 1994 (estimation in ranges)".

3.1.7.bis. Marketing activities planned by information brokers for 1995

Table 31.

The marketing activities planned by information brokers for 1995 (see table 31) have been ranked below after having multiplied its five possible scores (5=very important, 1=less important) by the number of respondents that marked them:

Marketing activities	Total score
Publication of brochures	291
Improvement of customer services	269
Presentations of services, demos	240
Mailings, direct mails	221
Public relations	208
Better presentation of search results	199
Participation in info brokers assoc.	184
Visiting customers	171
Active participation in congresses	111
Active participation in exhibitions	99
Other	13

3.1.8. Ratios

See ratios in each section.

3.2. Intermediaries in Banks

3.2.1. Response rates

Questionnaires were sent to the headquarters of all the 98 banks and 60 savings banks existing in Spain, 158 in total. After not having received any answers, we began a systematic telephone call to all of them.

Most of the questionnaires had been lost "somewhere" in the organizations and we had to send them again. We did a second round of 95 questionnaires, after having identified contact persons through telephone calls. Finally, with deadlines approaching, we faxed 77 questionnaires again.

It has proven extremly difficult, almost impossible, to have a general overview of the information usage in an a particular bank, and much less in the sector in general.

The reasons are:

-Dispersion of information users in the bank. Nobody is responsible for "information services" in a broad sense; nobody is able to provide a general picture. Each department of the bank contracts its own information services. Banks are end-users only.

-In some cases the Electronic or Data Processing Department controls some of the payments, but in general they have no idea of the characteristics of the information services that they buy for other departments.

-A very few banks keep a Studies Department, as it was quite frequent in the sixties and seventies. In some cases there is a small unit with 1 or 2 people producing a weekly newsletter for their clients. Their information needs are minimal as they only read the specialized business printed press and do not use electronic information sources.

-When a documentation centre exists, it is linked to a library and the information services provided are mainly the traditional ones only.

-Spanish banks do not perform information searches as intermediaries for companies, as it seems it is common in other European countries. Instead, this function is carried out mainly by the chambers of commerce.

All the above characteristics made us to change the design of this part of the MSSTUDY in that we have not considered banks as brokers but as simply as information users. Consequently, many of the sections of this chapter 3.2. (customers, revenues) have been omitted.

-As part of their "social activities" or through own foundations, some banks and savings banks have created libraries and documentation centres. Normally these centres are fully separated and the bank itself uses them very little, if something.

-Some savings banks foundations have created public library networks. The biggest of these networks was the one of *Caja de Ahorros y Pensiones de Barcelona ("La Caixa")*, with 100 libraries spreaded in Catalan and Balearic Islands villages, but since the last 2 years they are being transfered to the local governments --although *La Caixa* offers them quite good economic conditions, taking personnel charges for about 2 years, local governments are reluctant to accept them--.

-When approaching a bank about electronic information use, whether online or videotex, they tend to think only in the "home banking" services.

We have spent many hours at the telephone explaining to many people the kind of information services we were interested in. Our call was transfered from one extension to another, and at the end we only were able to get disappointing partial views.

In total we have received 7 questionnaires (4.4%).

3.2.2. Characteristics of respondents

The seven questionnaires that we have received from different Spanish regions, kind and size of banks, plus the information obtained from the telephone calls allow us to make some estimates of the total expenditure, although we recognize this is a very risky exercise.

3.2.3. Non-respondents and estimation of totals
n/a

3.2.4. Revenues
n/a

3.2.4.1. Overall figures

n/a

3.2.4.2. Analysis for service/product categories

Services offered
(by internal documentation centres to internal customers)

	YES	NO
Online searches	6	1
Cd-rom searches	4	3
Searches in print media	4	3
Courses	2	5
Consulting	4	3
Database production	3	4
Software distribution	3	4

Tab. 35: Kind of Sources Used

	MEDIA					
Usage Others	Printed media	Personal contacts	Internal online	External online	External offline	
>50%	1	1	2	0	1	0
10-50%	4	3	4	3	2	0
<10%	1	2	0	3	3	0
0	0	0	1	1	1	0

3.2.4.3. Analysis by type of customer

Sales network/operations	5
Legal advisory	4
Accountancy/administration	3
Treasurership	3
Finance network	3
Real state	1
Information systems	1
Clients	1

3.2.4.4. Analysis by subject area

Tab. 36: Analysis of Requests by Subject Area (in %)

	SUBJECT AREA							
%	Finance stock banking	Company profls. credit	Further business economic	Legal info	Patent info	Scientif. technical medical	Government political news	Travel info
<10	1	2	3	4	4	5	5	3
11-50	2	4	3	1			1	
51-75	2							
>76	2							

3.2.5. Volume of business

n/a

3.2.6. Human resources

The 7 respondents have on average 39 persons in their information departments. The total number of information specialists employed by Spanish banks could be:

158 banks x 39 = 6,162 information specialists.

Probably, an important part of this personnel work on information services developped around the home banking central one. They are really information providers.

3.2.7. Analysis of budgets/expenditures

The averages were:

Total budget:	402 M PTA (2.53 M ECU)
Electr. information expenditure:	77 M PTA (0.4845 M ECU)

These figures would make the following total expenditure of the banking sector in electronic information:

158 banks x 77 M PTA = 12,166 M PTA (76.55 M ECU)

3.2.8. Ratios

See under each section.

4. The Interconnections of Supply and Demand

4.1. Aggregating supply and demand figures in a "balance sheet"

In 1994 the suppliers of information sold M ECU 74.7 in Spain.

Through our survey on brokers we have obtained only a small part of the demand: M ECU 2.09.

Considering that this figure corresponds to the 29% of the respondents to our 290 centres sample, and assuming that the sample accounts for most of the electronic information expense incurred by all Spanish brokers:

Total electronic information expense by brokers:

2.09 / 0.29 = M ECU 7.21 (9.6%)

The rest would have been consumed by end-users (end-user companies). Of these, we have made an estimation only of the banking sector: M ECU 0.4845.

4.2. The interconnections

With the data gathered, it is not possible to establish any reliable interconnections between supply and demand.

5. Possibilities for Further Market Development: The Potential User

5.1. Response rates

To study a further electronic information market development we mistrusted of asking questions to "potential" users, because we believe that they do not consider themselves as information users. Simply they don't understand the questions about databases or information systems, as they are not able to imagine their potential usefulness. Information systems are a fuzzy and ethereal "need" for potential users. The evaluation of its usefulness can only be done by people who know them.

The experience that we had with our questionnaires sent to banks showed us how difficult is to contact an "information user". Everybody in the bank thought that the questionnaire had reached him/her by mistake.

Therefore we discarded our first thought of sending questionnaires, f. i., to the first 500 Spanish companies.

Instead, we decided to ask the questions to the information professionals who are in the forefront interfacing with end-users. They are best situated to see how to catch a new user or why end-users don't use more electronic information sources or why don't use them for themselves.

5.2. Structure for respondents

See the next section.

5.3. Information sources/media channels used

We made two surveys of professional information intermediaries:

Survey A. Question 6.1. of the same questionnaire used to evaluate the intermediaries themselves. As it have been said in section 3.1., we got 84 answers.
See Table 30: "Barriers of using electronic information services in 1994 (estimated by information brokers)" and comments below.

Survey B. A short questionnaire e-mailed to the Spanish information science/librarianship electronic list *IweTel*, that has about 600 members, most of them resident in Spain. We got 51 answers.

In Survey B the respondents were asked to answer the questionnaire as if they were end-users, thinking in particular real cases they had in their job environment or describing the stand point of a relative that they knew well.

Therefore, both groups were composed of people that know and use the electronic information sources. In our opinion, given de difficulty inherent to ALL information systems, not only because of the technologies, but also for using their content, this is the best way to approach the problem.

It might be argued that information experts could score as less important the technical barriers, that they know well, than the others. This is true. But until certain point this possible bias can be counteracted. Much more problematic seems to us that end-users can evaluate information systems that they use rarely or don't use at all, not knowing properly what are they talking about.

See questionnaire model under chapter 13. "Appendixes".

Survey B

-Characterization of respondents.

Intermediary respondents described acquainted end-users in the following situations:

Work sector	users
Public administration	7
Academic	22
Semi-public	4
Private companies	18

...

(...) Who were working with the subjects:

Subjects	respondents
Engineering	8
Chemistry	7
Medicine	6
Telecommunications	5
Computing	3
Information Science	3
Publishing /design	3
Psychology	2
Journalism	2
Economics	2
Food industry	2
Biology	1
Agriculture	1
Linguistics	1
Law	1
School teacher	1
no answered this	3

5.4. Information needs according to subject area

Some respondents complained of not having available enough full text / digitized documents and databases with Spanish information for their profession.

The subjects more quoted were directories (20%), business/companies information (18%), news, image databanks, sectoral studies, etc.

5.5. Barriers of use

Results survey A

The barriers of using electronic information (Table 30) have been ranked after having multiplied its five possible scores (5=very important, 1=less important) by the number of respondents that marked them:

Barriers to information usage	Score
Lack of awareness	284
Budget reasons	243
Prices for host services too high	224
Lack of experienced staff	187
Information required not available	186
Technical barriers	178
Cost-benefit relation inadequate	169
Network deficiencies	161
Staff costs too expensive	160
Resistance from management	151
Language problems	146
Lack of user-friendliness	145
Further reasons (*)	15

(*) Cost of data transmission, unawareness of the *value of information*, need to invest in new computer equipment for a better performance and user-friendliness.

Results survey B

(respondents were asked to mark only three causes of the following list)

	%
Lack of awareness	43
Information required not available	41
Technical barriers	31
Prices too high	31
Cost-benefit relation inadequate	22
Budget reasons	20
Language problems	16
Resistance from management	12

Other: slowness, lack of time, difficult management of own information.

5.6. Potential users and their knowledge about electronic information services

Most of the users of our sample in survey B had an **internal library** in their organizations (80%) and **were using or had used electronic information sources**, including e-mail services (82%).

The ranking of the most used information sources by respondents is:

Information source	%
Printed	86
Personal contacts	78
Cd-rom	51
Internal online (incl. opac)	37
External online	31
Other	
-Electronic mail	49

5.7. Potential users and their main reasons for not having used electronic information services.

This is a result of various expert interviews.

The use of electronic information sources has needed an additional promotion effort in most countries, but in Spain the ratios of use per capita and per GNP continue to be lower than in the rest of Europe.

This situation reflects a lack of awareness about information and of habit using it, not only in electronic format but also printed, and could be explained by the following reasons:

-Traditionally, along many years, libraries have been operating with scarce resources, having mainly old holdings and not offering attractive services.
-There have been a lack of training of people to use libraries and information sources, beginning at school and continuing at the university. Often can be seen doctoral dissertations and projects that have been done without a previous bibliographic search on the matter.
-Small budgets for R&D and, therefore, unnecessary information needs. Extended and long time maintained wrong concept of "research is done at the laboratory, not in the library".
-Companies prefer to get quick money, not investing in research and paying royalties instead.
-Weak patent system until 1986 (when a new Patent Law was approved in Spain), allowing relatively easy copying of foreign inventions.
-Lack of knowledge of English language. The Franquism periode (1939-1975) made the country to close in itself. Languages were considered as a danger for Spain being "invaded by pernicious foreign cultures". Mistaken idea that languages were only a cultural matter --not a working tool--, like arts and humanities, useful mainly for travelling.
-Unavailability of databases exhaustive and updated about Spanish matters.
-Fragmentation of the Spanish offer of online information.
-Lack of a national policy to promote private information services. The ones of the public administrations are not enough marketed.
-The policy of *Telefónica* (high prices, low quality, monopolistic situation) was an important deterrent for many information centres in the 80's and a complete barrier for BBS's and private users, specially for using the public packet switched network Iberpac.

5.8. Intended use

We do not have quantitative information available about the intended use of electronic information.

According to various observers it is foreseen that, in the new Internet + multimedia era, Spain will leap forward to have a situation more in accordance with its general economic level than it is at present.

5.9. Use of external electronic information services

See section 5.6.

5.10. Main reasons for using external electronic information services

The contrary of some of what have been said in the above section 5.7. about main reasons for not having used them, would apply here, providing they change from negative to positive in the next future.

Computer literacy, English language knowledge, Spanish information sources, telecommunications quality and lower prices, etc. are developping and improving quickly.

On the other hand, companies are beginning to understand that using information is vital to assure their survival, allowing them to be competitive.

Infovía, "the Spanish commercial Internet" of *Telefónica*, has created many expectations as a complete source of information and services.

5.11. Positive and negative experiences made with external electronic information services

In general, the respondents to our e-mail enquiry said that their experiences are positive after having decided to invest time and money to learn how to search in electronic sources. Nevertheless, they complained about systems slowness, high costs, lack of exhaustive and updated Spanish information, and retrieval softwares too complicated.

See also section 5.5. "Barriers of use".

Some of them complaint about almost empty or obsolete information servers that cause frustration to users, and make them to lose their time.

Finally, many of the respondents propose to organize more training courses at various levels as the only way to overcome, not only the technological barriers, but also to teach how to use the information content of the various sources.

The most optimistic experiences still come from people skilled in the new technologies. Traditional STM searchers are very satisfied with foreign Chemistry, Medicine, Psychology, Engineering, Agriculture, Biology, etc. databases. A significative number of new users seem happy having "discovered" the more broad focused databases (like *ABI/Inform*, *PTS Predicasts*, *Magazine Index*, newspapers). Also, in recent months Internet WWW searches are beginning to be very cost/effective also for professional information interesting to companies.

Positive comments come as well from electronic lists participants that use the list as a source of professional information. People input enquiries and usually receive various answers in a cooperative way. In Spain, the list *IweTel*, operated by the private Internet provider *Sarenet*, is both a discussion forum and a bona-fide information clearinghouse.

5.12. Further use or improvement of offer

It is not expected a short term migration to the newest technologies of the traditional databases produced by the Spanish administration --that dominate the situation--, nor the ones produced by semi-public organizations (chambers of commerce, development agencies, etc.), because it seems that important budgetary restrictions will be applied by governments in order to reach the necessary values of the economic convergence indicators of Maastricht.

Some organizations have already announced that they are bound to the old equipment that they have at present, and can not develop new more user friendly systems nor improve dramatically the contents of their databases.

The prospects and the hope are based mainly on the WWW and the private sector, that will re-convey and absorb the old videotex work force and resources, but with a new sap and with a much more mature environment.

It is foreseen also that the Spanish strong publishing sector will produce increasingly electronic books and other materials both on cd-rom and online --in this case, more addressed to the general public.

6. The Markets for Printed Information

This section has been divided in three parts:

A. Books and related printed materials
B. Journals and magazines
C. Newspapers

Besides, we have included two sections more, as they are related fields:

D. Other multimedia
E. Advertising

Unfortunately, it is not possible to establish a sharp division between books and journals publishers, and between journals and newspapers publishers, as in many cases their businesses are mixed. Nevertheless, it seems that there is not overlap between the given business figures.

Also, there is not an equivalent amount of detailed information for the three parts A,B and C of the printed information section.

Most of the information of the chapter 6.A. has been taken from the report:

Panorámica de la edición española de libros. 1994.
Análisis sectorial del libro.
Ministerio de Cultura. DG del Libro, Archivos y Bibliotecas. SDG del Libro y la Lectura.
(see complete reference in appendix 13.5. "Bibliography")

Data were obtained from the *Spanish ISBN Agency*, founded in 1972. In 1994 the agency acquired the management software *Dabis*, produced by the German company *Bis*, that improved the record management and data analysis.

6.A. Books and related printed materials

6.A.1. Overall revenues

Production value (at market prices excluding VAT)

These are production values, not necessarily sales:

Public Administration			Private		
M PTA	M ECU	1994/1993	M PTA	M ECU	1994/1993
71,891	452.38	+1.8 %	325,055	2,045.43	-3.1 %

TOTAL:	M PTA	M ECU	1994/1993
	396,946	2,497.80	-2.26 %

Production costs of private publishers

M PTA	M ECU	1994/1993
283,085	1,781.33	-4,3 %

6.A.2. Analysis by service/product categories

6.A.2.1. Publishers by size

Group 1.	100.000 - 1.000 books/year	163	6.4 %
Group 2.	1.000 - 100 books/year	552	21.6 %
Group 3.	100 - 1 books/year	1,844	72.0 %
	TOTAL:	2,559	100 %
	1994/1993:		+18.5 %

6.A.2.2. Publishers by legal status

Public Administration (Central, regional, local, universities)	563	22 %
Private companies	1,996	78 %
TOTAL:	2,559	100 %

This ratio of public/private publishers has a correspondence also in their production. There is a tendency to decrease the presence of the public sector:

Production of the public sector in 1993	22.3 %
Production of the public sector in 1994	19.2 %

6.A.2.3. Continuity of the activity of the publishers

In the last 5 years (1989-1993) only 847 publishers have had an uninterrupted activity, publishing at less 1 title/year.

6.A.2.4. Titles (different ISBN numbers)

First editions	41,315	
Further editions and reprints	9,733	
TOTAL:	51,048	
1994/1993:		+3.5 %

6.A.2.5. Languages

Spanish (Castilian)	42,783
Català (Catalan)	5,281
Euskera (Basconian)	1,076
Galego (Galician)	933
Portuguese	317
English	287
French	119
German	76
Italian	58
Other	118
TOTAL:	51,048

6.A.2.6. Multimedia books

Note: Te following data, included for the first time also in the "Panorámica de la Edición Española de Libros. 1994", probably are not exhaustive because some multimedia publishers are not fully aware that ISBN numbering applies also to non book materials.

In this section are included printed books and fascicules that are published together with non printed materials (videos, cassettes, diskettes, CD and Cd-rom). See also section 18 "Other media".

These new media, packed with the traditional books, are being very attractive, because of the symbiosis of both products.

They were favoured with strong advertising campaigns in the TV. According to *Infoadex*, in 1993 the advertising expenditure for these kind of materials amounted to M PTA 8,114 (M ECU 51.06); this is the 86.9 % of all the publicity expenditure of the publishing sector in Spain.

The following multimedia figures were already counted in section 6, under the general heading "Titles (different ISBN numbers)":

TOTAL ISBN numbers: 346 TOTAL titles: 237

Subjects more popular:

Child stories (audiocassette: 70.8%; video: 29.2%)	25.7 %
Computer science (diskette: 83%; cd-rom: 5%; etc.)	20.5 %
Languages courses (audiocassette: 69%; video: 31%)	8.9 %
Fiction (video)	7.8 %
Geography and Travel Guides	6 %
Medicine	5.2 %
Business organization	4.3 %

6.A.2.7. Other media

	ISBNs	%	Titles	%
Microforms	690	56.4	689	59.0
Video-books	229	18.7	227	19.5
Electronic	220	18	182	15.6
Audio-books	78	6.4	63	5.4
Slides	6	0.5	6	0.5
TOTALS	1,223	100	1,167	100

6.A.2.8. Electronic publishing

ISBNs: 220 Titles: 182

Number of publishers: 45

-Cd-rom: 20 publishers (44 %)
-Diskette: 25 publishers (56 %)

Catalonia (Barcelona city): 72.4 % of the total.

Madrid	20,461 titles	40.1 %
Catalonia	16,499	32.3 %
Valencia	2,642	5.2 %
Andalucía	2,366	4.6 %
Basque Country	2,361	4.6 %
Castilia-León	1,622	3.2 %
Galicia	1,378	2.7 %
-All the other	3,719	7.3 %
TOTAL:	51,048	100 %

Exports/imports

The reactivation of book exports initiated in 1992 has consolidated in 1994 due to the devaluation of the peseta and to the improvement of the economic situation of the Latinoamerican countries.

Also imports have increased slightly.

- **Exports** (include books and other printed materials)

To Latinamerica		To Europe		To rest of the world	
M PTA	M ECU	M PTA	M ECU	M PTA	M ECU
30,068	189.20	15,266	96.06	3,571	22.47

TOTAL EXPORTS:

M PTA	M ECU	1994/1993
48,905	307.74	+ 8.51 %

- **Imports** (include books and other printed materials)

TOTAL IMPORTS:

M PTA	M ECU	1994/1993
11,626	73.16	+15.0 %

These imports can be splitted in:

	M PTA	M ECU	%
Books	6,801	42.80	58.50 %
Newspapers and journals	3,240	20.39	27.87 %
Other media	1,585	9.97	13.63 %
TOTAL IMPORTS	11,626	73.16	100 %

Imports of materials on other media

Imports of materials on other media

	M PTA	M ECU	% on total imports
Videos	80	0.5034	0.69 %
Records/cassettes/CD	86	0.5412	0.74 %
Cd-rom/diskettes	4	0.0252	0.03 %
Rest (1)	1,415	8.9040	12.17 %
TOTAL	1,585	9.9737	13.63 %

(1) Catalogues, brochures, music scores, maps, engravings, microfiches, slides, etc.

Source of the above data on exports/imports: *Federación Española de Cámaras del Libro.*

6.A.4. Analysis by subject area

Statistics by subject are based in a classification of 23 divisions and 192 subdivisions. The following is only a general overview of the main groups:

Subject	Titles	1994/1993	Tendency last 10 years
Soc/Humanit	18,787	+ 2.8 %	Slow increase (1%/year)
Fiction	8,318	+ 8.9 %	Moderate fluctuations
School/univ.	7,722	+ 5.9 %	Slow incr. but flucts.
STM	6,601	- 3.0 %	Important fluctuations
Child/youth	4,230	- 7.4 %	Slow decrease (-2%/year)
Entertainment	3,454	+16.1 %	Slow increase (+2%/year)

6.A.5. Volumes of business

There is a steady tendency to produce smaller printings since 1985:

1985	6,926 copies/title
....	
1989	5,206 copies/title
....	
1993	4,495 copies/title
1994	4,071 copies/title

1994/1993: -9.43 %

Number of copies

51,048 titles x 4,071 copies/title = 207 million copies

1994/1993: -6.33 %

Average price per book

It has decreased due to the higher production of pocket books and to the books sold in press kiosks.

Average cost of single books (not being part of multivolume works):

	PTA	ECU	%
1992	2,023	12.73	+ 2.9
1993	2,201	13.85	+ 8.8
1994	1,934	12.17	-12.1

6.A.6. Human resources

The total exact number is not known. The *Federación de Gremios de Editores de España* (Spanish Federation of Publishers Associations) carries out a yearly study among 588 publishers affiliated. According to this study, he average staff employed is of 18 persons.

As most non-affiliated publishers are the smaller ones, a rational estimation would be to consider the number of regular publishers given in section 6.A.2.3. and to apply to the rest a much smaller ratio:

Affiliated:	588 companies x 18 persons =	10,584 employees.
Rest:	259 companies x 8 persons =	1,295
TOTAL:		11,879 employees

So, we could say that there are about 12,000 people working in the printed information industry (books, a part of journals --we suppose it is a small one-- and related materials; all newspapers are excluded).

6.B. Journals and magazines

Main information sources used for this chapter: *IPMark*, *Anuario El País. 1995*, and *Comunicación Social 1994. Tendencias / Fundesco* (see Bibliography annex).

6.B.1. Overall revenues

The income for advertising both in journals and in newspapers is *grosso modo* equivalent to the income for sales.

Therefore, the expenditures in advertising, that have been analysed and published in sectoral studies carried out by *Infoadex* (see bibliography) can give an approximate figure of the total volume of business of these kind of printed information.

The overall revenue of journals and magazines in 1994 is estimated to be:

	M PTA	M ECU
"Normal" journals and magazines	153,000	962.76
Weekly supplements of newspapers	15,800	99.42
	168,800	1,062.18

As shown, we have opted to include the weekly supplements of newspapers in this section 6.B.

6.B.2. Weekly supplements of newspapers

The following are de first titles of the ranking:

	Title	City/es	Printing	%
1.	Suplem.Semanal (*)	Madrid	1,129,100	15.84
2.	El País Semanal	Madrid-Barcelona	1,084,200	15.21
3.	Suplemento TV (*)	Madrid	1,008,600	14.15
4.	ABC (Blanco y N.)	Madrid-Sevilla	765,700	10.74
5.	Magazine El Mundo	Madrid	432,400	6.07
6.	El Periódico (Dom.)	Barcelona	388,700	5.45
7.	La Vanguardia(Dom.)	Barcelona	367,500	5.16
8.	El Periódico (Sáb.)	Barcelona	222,300	3.12

(*) El Correo and other newspapers.

Total printing of the existing 46 supplements: 7,127,800 copies

As the newspaper issue with supplement costs twice the price of a normal issue, it could be stated that the weekly supplements have a business value of 7,127,800 copies x 110 PTA, i. e.:

M PTA	M ECU
784	4.93

According to *Infoadex*, supplements got a much higher extra income from advertising: 15,319 M PTA (96.40 M ECU)

Total income of weekly supplements:

M PTA	M ECU
16,103	101.33

6.C. Newspapers

6.C.1. Overall revenues

In Spain there are 89 newspapers published which printing is controlled by the *Oficina de Justificación de la Difusión (OJD)*. There are also another 40 newspapers not controlled, with an estimated printing of 225.000.

Please note that we are going to assume this last figure as realistic total printing of Spanish newspapers. Other analysts consider only the *official* figures provided by *OJD*.

The total printing was 4,425,000 copies in 1994 (an increase of 4.1-4.8% over 1993).

The difusion ratio was:

102.4-113.8 copies/1,000 inhabitants (with an audience of 38-40% of the Spanish population older than 14).

The newspapers subsector is quite healthy, and has proven to overcome well the economic recession.

Overall revenue of newspapers (sales plus advertising) in 1994:

Advertising		Sales		Total		94/93
M PTA	M ECU	M PTA	M ECU	M PTA	M ECU	%
180,952	1.138.65	134,000	843.20	273,000	1,718.87	4,2%

6.C.2. Analysis by service/product categories

Main newspapers (1994)

Title	City/es	Printing	%
1. Marca (sports)	Madrid-Sevilla	421,300	10.5
2. El País	Madrid-Barcelona	408,300	10.0
3. ABC	Madrid-Sevilla	321,600	8.0
4. El Mundo	Madrid	268,700	6.7
5. La Vanguardia	Barcelona	207,100	5.1
6. El Perió d. Catalun.	Barcelona	193,600	4.8
7. El Correo/Pueb.Vasco	Bilbao	137,600	3.4
8. As (sports)	Madrid	121,800	3.0
9. La Voz de Galicia	La Coruña	113,100	2.8
10. Sport (sports)	Barcelona	100,400	2.5
11. El Diario Vasco	San Sebastián	92,300	2.3
12. Diario 16	Madrid	74,800	1.9

6.D. Other multimedia

	M PTA	M ECU
Phonography	71,220	448.16

Source: *Asociación Fonográfica y Videográfica Española (Afyve)*

Cinema (1993)	40,579	255.35

(January-June 1994 = M PTA 18,571 = M ECU 116.86)
Source: *Ministerio de Cultura*, Spain

Video	50,965	320.70

(49% rentals, 51% sales)
Source: *Observatoire Européen de l'Audiovisuel*

The video market suffered an important decrease in the recent years with the operation of the new private TV channels in Spain.

6.E. Advertising

In 1994, the overall expenditures on advertising in the different media were:

Media	M PTA	M ECU
Newspapers	180,952	1,138.65
Weekly suppls.	15,318	96.39
Journals	76,651	482.33
Radio	53,025	333.66
Cinema	4,650	29.26
TV	210,817	1,326.58

Source: *Infoadex* (see Bibliography)

7. Information Services Institutional Infrastructure

7.1. Library services

The *Instituto Nacional de Estadística (INE)* --the Spanish national statistics institute--, compiles the statistics about libraries every two years. At closing time of this MSSTUDY report (October 1995) the last data available are those of 1992.

Statistics are carried out following the *Recommendation on International standardization of statistics* related to libraries aproved by the 16th *Unesco* meeting held in November of 1970. In the gathering of data participate various Spanish regional governments.

7.1.1. Number of libraries

In 1992 in Spain there were 6,207 libraries:

National		1
Main libraries (non special)		59
Public		**3,992**
-General	3,278	
-Militar	353	
-Prisons	76	
-Hospitals (non special)	76	
-Student residences	87	
-Other	122	
Academic		**648**
-University	589	
-Non university	59	
Special		**1,506**
-Religious	180	
-Government ministeries	201	
-Research institutes	185	
-Professional Associations	230	
-Private companies	87	
-Archives and museums	175	
-Others special	448	

7.1.2. Equipment

Total number of photocopying machines:

3,095 40% of libraries

Total number of microfiche or microfilm readers:

2,010 24% of libraries

Total number of computers (any kind)

4,463 27% of libraries

Library automation

One or more library operations automated	Automation project in current budget	No automation at all
21%	10%	69%

7.1.3. Holdings and acquisitions

Books

Holdings	Acquired en 1992
75,881,500	4,034,700

Manuscripts

Holdings	Acquired in 1992
242,200	4,640

Serials

Serial's volumes	Complete collections (different titles)	Incomplete collections (different titles)
4,893,600	396,200	220,000

Phonographic materials (records, audiocassettes, CDs)

Holdings	Acquired in 1992
850,000	64,700

Audivisual materials (videos, films)

Holdings	Acquired in 1992
394,700	44,700

Cd-roms and disquetes

Holdings	Acquired in 1992
59,700	15,800

7.1.4. Interlibrary loans

Original documents	Copies
29,922,000	4,966,000

International interlibrary loans

From Spain to abroad (included in the above total)		From abroad to Spain	
Original documents	Copies	Origial documents	Copies
3,560	16,100	21,130	60,940

7.1.5. Reprography

Photocopies	Microfilms	Microfiches
83,629,700	289,800	279,300

7.1.6. Human resources

Total: 17,240 persons

Graduated librarians	Other graduated	Non graduated librarians	Other staff
3,070	4,180	4,060	5,930

7.2.1. Archives

It has been compiled some bibliography about Spanish archives (searching online the databases *Barc* * and *Isoc* **) but it is not enough to offer a general and current overview of the situation. We have contacted also the *Centro de Información y Documentación de Archivos (Cida)* of the Ministry of Culture (see address below).

This section of MSSTUDY will be written after a further desk research.

* *Barc (Bibliografía sobre archivos)*. Host: *Puntos de Información Cultural, Ministerio de Cultura.*
** *Isoc (Información en Ciencias Sociales y Humanidades)*. Host: *Centro de Información y Documentación Científica (Cindoc), Consejo Superior de Investigaciones Científicas (Csic).*

Cida.
Sección Documental. Censo Guía y Estadísticas de Archivos.
Attn.: **Carmen Sierra** and **Belén de Alfonso**
Sección Bibliográfica. Base de datos *Barc*.
Attn.: **Pilar Ramis.**
Avda. Juan de Herrera, 2 - 4ª planta
28040 Madrid
Tel.: +34-1-543 70 48; fax: 549 98 74

7.2.2. News agencies

This text has been extracted from the article "El sector de las agencias de noticias en España", by **Juan Carlos Miguel de Bustos** and **Fátima Pastor Ruiz** (see appendix 13.5. "Bibliography")

Until 1970, *EFE* was a monopoly as the only Spanish official newswire. Since then many small companies have appeared (about 125 in total), that operate different kinds of services for/about the press:

-General news agencies		29
-Specific information agencies (collaborations)		50
-Graphic agencies		42
Photography	31	
Televisión	10	
Graphics	1	
-Documentation agencies (databases, etc.)		4
Total		125

To the above list, there have to be added the foreign news agencies delegations in Spain.

The total business volume of this segment is about M PTA 18,000 (1992) and the number of employees is 1,570 (although this figure could be four times larger because there are many people working with temporary contracts or as a freelancers).

As in many other sections of this MSSTUDY, here again it can be observed a concentration of the activity in Madrid and Barcelona:

	Companies
Madrid	77
Barcelona	25
rest of Spain	23

Considering that *EFE* alone accounts for 57% of the total business, it becomes evident that most of the companies are very small; they specialize in a narrow niche of activity.

EFE itself is small compared with other foreign news agencies. Data corresponding to 1992 are:

	M PTA	M ECU
Reuter (UK)	256,655	1,616
AFP (France)	23,034	145
EFE (Spain)	10,300	65

Besides the lack of diversification of activities aforementioned, and leaving aside de officialist *EFE*, other characteristics of this segment are:

-fragmentation
-high competitivity
-few investments in new technologies
-more effects of the general economic crisis as, with the decrease of advertising, newspapers tend to be self-sufficient, hence not using the services of the news agencies.

7.3. Publishers, booksellers, etc.

The main Spanish publishers are members of the *Federación de Gremios de Editores de España (Fgee)*.

The Federación includes the following territorial associations:
Gremio de Editores de Madrid (GEM)
Gremi d'Editors de Catalunya (GEC)
Gremio de Editores de Euzkadi (GEE)
Asociación de Editores de Andalucía (AEA)
Asociación Galega de Editores (AGE)
Asociación Nacional de Editores de Libros y Material de Enseñanza (Anele)
Associació d'Editors en Llengua Catalana (Aellec)

Address:
Federación de Gremios de Editores de España
Juan Ramón Jiménez, 45 - 9º Izda. 28036 Madrid.
Tel.: +34-1-350 91 03 / 5; fax: 345 43 51

Spanish booksellers are grouped in:

Confederación Española de Gremios y Asociaciones de Libreros (Cegal)
Santiago Rusiñol, 8. 28040 Madrid.
Tel.: +34-1-534 61 24; fax: 253 12 73

7.4. Professional associations

In Spain there are about 41 professional associations. Most of them are open to all kind of professionals but some have their membership restricted to graduated ones, and two accept only public administration officers.

Most accept only individuals, but others are associations of companies, and some have mixed individuals/companies membership.

Still, most of the associations are professional/user oriented but also there are some information provider oriented.

A practically complete list follows:

-Asociación de Amigos de las Bibliotecas de Canarias
-Asociación Andaluza de Bibliotecas de Ciencias de la Salud "Juan de Aviñón" (Asabime)
-Asociación Andaluza de Bibliotecarios (AAB)
-Asociación Andaluza de Documentalistas (AAD)
-Asociación de Archiveros de Castilla y León
-Asociación de Archiveros de Andalucía
-Asociación de Archiveros de la Iglesia en España
-Asociación Asturiana de Bibliotecarios, Archiveros, Documentalistas y Museólogos (Aabadom)
-Asociación Bibliotecaria Galega (ABG)
-Asociación de Bibliotecarios, Archiveros, Documentalistas y

Museólogos de Extremadura (Abadmex)
-Asociación de Bibliotecarios y Documentalistas de Guipúzcoa = Gipuzkoako Bibliotekari eta Dokumentalisten Elkartea (Abdg/Gbde)
-Asociación de Bibliotecarios Valencianos (ABV)
-Asociación Canaria de Archiveros, Bibliotecarios y Documentalistas (Ascabid)
-Asociación Cultural Educación y Bibliotecas
-Asociación Española de Distribuidores de Información Electrónica (Asedie)
-Asociación Española de Documentación Musical (Aedom)
-Asociación Española de Proveedores de Servicios Videotex (APV)
-Asociación Española de Proveedores de Audiotex (Aespa)- Madrid
-Asociación Española de Sistemas de Información Geográfica (Aesig)
-Asociación de Titulados Universitarios en Documentación y Biblioteconomía (Adab)
-Asociación Española de Archiveros, Bibliotecarios, Museólogos y Documentalistas (Anabad)
Although originally extended to all the country, along the years most regional delegations created their own independent association. Most Anabad members are currently in the Madrid area, but still exist some delegations in other regions --apart of individuals scattered in all Spain:
--Anabad Aragón
--Anabad Castilla-La Mancha
--Anabad Galicia
--Anabad La Rioja
-Asociación Española de Empresas Multimedia (Asedem)
-Asociación Madrileña de Estudios Bibliotecarios
-Asociación Profesional del Cuerpo Superior de Sistemas y Tecnologías de la Información de la Administración del Estado (Astic)
-Asociación de Profesores Universitarios de Documentación
-Asociación de Proveedores de Audiotex (APA)
-Asociación de Usuarios de Videotex de España (Auve)
-Asociación Valenciana de Especialistas en Información (Avei)
-Asociación Vasca de Archiveros, Bibliotecarios y Documentalistas / Artxibozain, Liburuzain eta Dokumentazainen Euskal Elkartean (Avabd/Aldee)
-Associació d'Arxivers de Catalunya (AAC)
-Associació de Bibliotecaris, Arxivers i Documentalistes de les Illes Balears (Abadib)
-Centro Español de Derechos Reprográficos (Cedro)
-Col.legi Oficial de Bibliotecaris-Documentalistes de Catalunya (Cobdc)
-Coordinadora de Documentació Biomèdica (CDB)
-Grupo Español de Revistas (GER)
-Servicio de Bibliotecas Escolares L'Amic de Paper
-Sociedad Andaluza de Documentación Médica (Sadom) (*)
-Sociedad Española de Documentación e Información Científica (Sedic)
-Sociedad Española de Documentación Médica (Sedom) (*)
-Sociedad Gallega de Admisión y Documentación Médica (Segadoc) (*)
-Societat Catalana de Documentació i Informació (Socadi)
-Societat Catalana de Documentació Mèdica (Scdm) (*)

-Técnicos Especialistas en Bibliotecas, Archivos y Documentación de la Comunidad Valenciana (Tebad)

(*) These societies work mainly on clinic archives and hospital performance indicators.

About a dozen of the above societies (gathering in total 5,000 people) are members of the:
-Federación Española de Sociedades de Archivística, Biblioteconomía y Documentación (Fesabid).
Fesabid is a coordination body between societies. Organizes the *Spanish Automated Documentation Conference (Documat)* every 2 or 3 years: Madrid (1986), Torremolinos (1988), Palma de Mallorca (1990) and Gijón (1994) --there were FID'92 in Madrid and IFLA'93 in Barcelona in between--. The next *Documat* will be held in Cáceres (October 1996).
Fesabid also gives 2 annual awards ("Professional" and "Student" cathegories) for studies in Librarianship or Information Science.

All the associations listed before account for about 12,500 people, working in the following areas:

Archives, librarianship, documentation and information science.
Online/cd-rom databases, videotex and audiotex. Part of information technologies (computing and telecommunications) related to information products and services.
Publishing, both print and electronic.

Assuming an overlap (double membership) of about 5%, we get the figure of 11,900 professionals, over an estimated total number of 24,200.

This means that about half of professionals are members of any of the existing professional associations.

The total number of professionals has been calculated adding:

a) 2,500 archivists,
b) 11,000 librarians,
c) 1,700 documentalists / information experts specialized in particular subjects, directly involved in database production, ascii, videotex and multimedia, --1,100 in public administrations (State, Regions, Cities) and 600 in private companies.
d) 9,000 documentalists/information experts --information gatekeepers or intermediaries--,

In sections 2.6. and 3.1.6. we have given estimates of the human resources in the Supply Side and the Demand Side: 3,356 and 6,370, respectively. There is some relation between the Supply Side and the above group c) and the Demand Side and group d) but it does not seem easy to make it evident. Many librarians of group b) are working also as information intermediaries.

In this section we have refered to professional associations whose members are mainly oriented to the information content.

Moreover, we could add other associations of organizations more devoted to other aspects, involving much more individuals, but whose tasks are less focused in the information content:

-Asociación Española de Usuarios de las Telecomunicaciones (Autel) --(large) telecommunications users,
-Confederación Española de Gremios de Libreros (Cegal), booksellers.

7.5. Education and training

Except in one university school, most of the official library and information studies in Spain have been implemented in the last 12 years.

Previously only occasional courses were organized in different parts of the country, except in Madrid, where in the periode 1952-1986 two years-long studies by the Ministry of Culture were held in the Biblioteca Nacional premises. These studies had different names along the time: "Cursos para la Formación Técnica de Archiveros, Bibliotecarios y Arqueólogos" (1952-), "Escuela de Documentalistas" (1964-), "Escuela de Bibliotecarios" (1977-) and finally "Centro de Estudios Bibliográficos y Documentarios" (1980-86).

Currently there are 9 librarianship and documentation university schools (anecdotically, being the one of Barcelona the oldest in Europe), that operate under the law "real decreto" RD 3104/78 published on December 1st 1978.

The ones refered as "Escuela Universitaria de Biblioteconomía y Documentación" (EUBD) teach only middle degree (called also first cycle studies).

1915 Barcelona	Initially created as Escola de Bibliotecàries (and restricted to women only until 1982, the year when the school was assigned to the Universitat de Barcelona), its current name is EUBD "Jordi Rubió i Balaguer".
1967-1978 Pamplona	Escuela de Bibliotecarias de la Universidad de Navarra (it was also restricted to women only).
1983 Granada	Escuela Universitaria de Biblioteconomía y Documentación (EUBD). Since 1994 converted in Facultad de Biblioteconomía y Documentación as they teach also the new graduate studies (second cycle).
1987 Salamanca	EUBD. This school was integrated with a translations school and, as a result, its current name is Facultad de Traducción y Documentación. Also imparts graduated studies.

1988 Murcia	EUBD. Departamento de Información y Documentación.
1989 Zaragoza	EUBD. Operates as part of the Facultad de Filosofía y Letras of the Universidad de Zaragoza.
1990 Madrid	EUBD Univ. Complutense.
1990 Madrid	EUBD Univ. Carlos III, depending on the Facultad de Ciencias Sociales. Since 1994 they teach also graduate studies.
1990 León	EUBD.
1995 Badajoz	EUBD.

Also noticeable are the documentation studies given in the curriculum of the Facultat de Ciències de la Comunicació (journalism and media) of the Universitat Autònoma de Barcelona, and the ones of the Cátedra de Documentación Médica of the Facultad de Medicina of the Universidad de Valencia, among a few others less important.

In 1992 (published in the Spanish official gazette *Boletín Oficial del Estado* on 27/08/92) the Spanish government approved the higher degree --second cycle or graduated-- studies "Licenciatura de Documentación". This new university degree can be obtained with 2 years of official studies. The access is direct for students that already have passed the middle degree in an EUBD, but graduated and middle-graduated students of other arts and sciences have to follow a "bridge" or adapting course before.

Three of the current EUBDs began to teach graduate courses in 1994, as it was stated in the list above: University of Granada, University of Salamanca and University Carlos III of Madrid.

Also, another university without EUBD began to impart directly graduated studies in 1994: Universidad de Alcalá de Henares (near Madrid), although it created a lot of polemics because of the suppposed bad quality and specialities of the teachers recruited.

Doctorate studies

Doctorate courses (third cycle) on librariaship, documentation and information science can be followed in:

-Universidad Carlos III de Madrid.
-Universidad de Granada.
-Universidad de Valencia, Facultad de Medicina.
-Universitat Autònoma de Barcelona, Facultat de Ciències de la Comunicació.

Master and postgraduated courses

There are various entities (research institutes, professional associations, universities, body governments and even private companies) that with more or less continuity have organized master-type courses, with 175-250 tuition hours given, on average, along one year. Many have been held for a few years and afterwards they have extinguished.

These kind of courses tend to be much more focused in technological and practical aspects, although, except the one organized by the Granada University, they are addressed to people with no previous knowledge on librarianship or information science.

The most known and still going on in 1995 are being organized by:

1979-	Madrid	Univ. Complutense
1983-	Barcelona	Institut Català de Tecnologia (ICT).
1986-	Madrid	Asociación Madrileña de Estudios Bibliotecarios.
1988-	Madrid	Sociedad Española de Documentación e Información Científica (Sedic).
1988-	Sevilla	Junta de Andalucía-Univ. de Sevilla.
1989-	Barcelona	Escola de Documentació de Casp.
1990-	Madrid	Universidad Carlos III
1994-	Granada	Facultad de Biblioteconomía y Documentación.
1995-	Barcelona	Univ. Politécnica de Catalunya

We are not fully sure about the exhaustiveness of the above list, as some courses are announced only locally.

General overview

Some of the remarks that could be made about the information studies in Spain are:

-There are much more students in the schools than the market can absorb. So, except in Barcelona and Madrid, there are many jobless graduated people. Most of those in the other provinces go to Madrid to look for a job (much lesser to Barcelona because in Catalonia they would have the additional problem of having to learn Catalan language).

-Each year about 300 new middle-graduates exit the EUBDs, and about 200 people follow postgraduated courses, 40% of which are also looking for a job. This makes the figure of near 400 people trying to get a job in this field.

-To occupy the jobs there is very much competition from other professionals like computer scientists, journalists, philologists and historians, as well as from the rest of specialized careers (biologists, physicians, chemists, psychologists, etc.).

-Official studies in universities and schools tend to be too much theoretical, little technologically oriented and still too much focused in teaching out of fashion matters (cataloguing, book conservation, etc., -even paleography, philosophy, etc.). Of course, there are a lot of differences among EUBDs, being perhaps Carlos III of Madrid and Granada the most advanced ones.

-The new graduated studies are being very much requested, and the courses are crowded with jobless students, coming both from EUBDs first cycle and from other studies with difficult exit in the job market (Geography, History, Philology, etc.).

-There is a general lack of knowledge of the profession. Companies and organisations are not aware of the usefulness of the professionals, except for working in traditional libraries and archives.

-The lack of awareness about the profession is also made evident by the applications of the secondary school-leaving students: they first choose other studies, but if they are rejected from them because of not having enough marks level to qualify, then they enter in Librarianship as a second or third choice. As a result, they are not motivated students, their performance is poor and some of them even do not finish the studies. Various EUBDs are facing problems to recruit enough students.

-While there is a concentration of schools in some geographic areas --like Castilla-León (one in Salamanca and another next in León) and Madrid (Complutense, Carlos III and Alcalá de Henares)--, others have neither schools nor even established long courses (Galicia, Basconian Country, Valencia, Balearic and Canary Islands).

-Research in universities has been very scarce up till now, but it seems that currently there are some more projects going on.

7.6. Research and development

Research and development (R+D) in the information technologies in Spain are regulated by two governmental actions: the *Plan Nacional de I+D* and *Plan Electrónico e Informático Nacional (Pein IV)*. The first is more oriented to basic and academic research and the second more to applied research.

7.6.1. *Plan Nacional de I+D*

The *Plan Nacional de Investigación Científica y Desarrollo Tecnológico* (National Plan for Scientific Research and Technological Development), for short, *Plan Nacional de I+D,* was initiated in 1988.

Its implementation is assured by the *Comisión Interministerial de Ciencia y Tecnología (Cicyt)*. Following a *Cicyt* proposal, the Spanish Council of Ministers approved the *III Plan Nacional de I+D 1996-1999* on July 21st 1995.

Afterwards --and until the moment we are writing this report--, *Cicyt* has published two resolutions with calls for proposals of R+D projects, one addressed to not-for-profit organisations (*Boletín Oficial del Estado* nº 233, 29 September 1995) and the other to private companies willing to work in cooperation with universities or public research centres (*BOE* nº 267, 8 November 1995).

This second action is a development under the *Programa Nacional de Fomento de la Articulación del Sistema Ciencia-Tecnología-Industria (Pacti)* --National programme to promote the coordination of the science-technology-industry system.

For the second call, the *Centro para el Desarrollo Tecnológico Industrial (Cdti)*, depending on the *Ministry of Industry and Energy (Miner)*, is the responsible for administering the funds and monitoring the results of participating private firms.

Cdti also represents Spain and coordinates Spanish research activities in relation to various international organisations like European Union programmes, European Space Agency, etc.

The *III Plan Nacional de I+D* is divided into 12 Special Actions or Programmes, being 2 of them:

-Information and Communications Technologies (TIC)
-Telematic Applications and Services (AST)

Although there is some overlap between the two programmes, the second is much more oriented to applications. It is subdivided in 3 areas:

-Telematic applications development (telelibraries, telearchives, telemuseums, teleeducation and training, teleworking, telemedicine, teleshopping, etc.).
-Telematic services development (software to implement services, multimedia, data encryption, etc.).
-Network technology development (new architectures, interconnection of high speed networks, access interfaces, etc.)

AST Programme has an annual budget of 1,000 M PTA (6.29 M ECU), of which 60% are already committed to *RedIRIS*, the Spanish academic research network.

TIC Programme, more focused to hardware, signal processing, neural networks, remote sensing, and basic telecommunications technologies, has an annual budget of 3,500 M PTA (22.02 M ECU).

Contacts:

Secretaría General del Plan de I+D
C/ Rosario Pino, 14-16
28020 Madrid
Tel.: +34-1-336 04 00; fax: 336 04 35
sgpnid@cicyt.es

Departamento de Tecnologías de la Producción y de las Comunicaciones.
See postal address above.
Tel.: +34-1-336 04 74; fax: 336 04 97
pndttp@cicyt.es

Centro para el Desarrollo Tecnológico Industrial (Cdti)
Edificio Cuzco IV
Paseo de la Castellana, 141 - 3º
28046 Madrid
Tel.: +34-1-581 55 00; fax: 581 55 76
jjpr@cdti.es

7.6.2. *Plan Electrónico e Informático Nacional (Pein IV).*

Pein is a part of the *Plan de Actuación Tecnológico Industrial 1994-1996* (Industrial technologic action plan) or *Pati*, devoted to information and communications technologies. The other 4 parts of *Pati* relate to the following prioritary areas:

-Production technologies
-Materials technologies
-Life technologies
-Chemistry technologies

Pein IV (Information and communications technologies) is divided in 3 sub-areas:

-Telecommunications.
-Computer and information technologies (including specifically multimedia systems, knowledge engineering, neuronal networks, computational linguistics, information and value added systems, document management, etc.).
-Professional electronics.

Pati was approved by the Spanish government on November 4th 1993 as a continuation of a precedent action during 1991-93, and it was published in the Boletín Oficial del Estado (BOE) --the Spanish official gazette-- as an "Orden" on March 15th 1994.

Pati is managed by the *Ministry of Industry and Energy (Miner)*. Its budget in 1994 amounted to about M PTA 7,000 (M ECU 44) in total.

In the same year, the *Pein* in particular had a budget of M PTA 1,445 (M ECU 9.09) distributed as follows:

-Computer sciences and information	M PTA 580 (M ECU 3.65)
-Telecommunications	M PTA 865 (M ECU 5.44)

In 1995 the figures have been similar:

-Computer sciences and information	M PTA 530 (M ECU 3.33)
-Telecommunications	M PTA 870 (M ECU 5.47)

Important cuts were expected for 1996.

The periode of time to submit proposals for projects and studies to be carried out in 1996 under the third and last year of the present *Pati* framework, was from November 1st 1995 to January 31st 1996.

The maximum amounts of subsidies are:

50% of cost of basic industrial research projects (60% if the requestor is a small or medium size enterprise (sme).

25% of cost of applied research or technological development projects (35% if the requestor is a sme, 40% if the requestor is a sme situated in a less favoured region, lfr).

70% of cost of training actions.

50% of cost of definition or viability study phases of national or international research projects.

Contacts:

Dirección General de Electrónica y Nuevas Tecnologías (Dgent).
Ministerio de Industria y Energía.
Paseo de la Castellana, 160
28071 Madrid

Dirección General de Tecnología Industrial.
Ministerio de Industria y Energía.
Responsable de Subvenciones
See postal address above.
Tel.: +34-1-349 40 97 / 98; fax: 457 90 17

Dirección General de Tecnología Industrial.
Ministerio de Industria y Energía.
Subdirección General de Tecnologías de la Información y las Comunicaciones.
See postal address above.
Tel.: +34-1-349 41 07 / 08; fax: 349 40 25

Instituto de la Pequeña y Mediana Empresa Industrial (Impi)
Tel.: 900-19 00 92

8. Technological Infrastructure

8.1. Telecommunications infrastructure

Most of the telecommunication services in Spain are provided by the State partially owned monopoly *Telefónica de España SA*. With total revenues of 10,000 M US$ (7,634 M ECU) *Telefónica* is the 17th in the world ranking of telecommunications companies.

Competition was open in 1993 for international data transmission, and in 1995 a second GSM operator (*Airtel*) has begun to market its services.

Telefónica is preparing itself for the future full competitive market. This has become evident with various structural changes inside the company to increase the productivity and a series of improvements in the services in order to acquire a more advantageous position when competitors will arrive.
As a consequence, the benefits of competence for the users have been already very important, both in quality of services and user support.

At the end of 1994 the company approved its Strategic Plan 1995-1999. *Telefónica* becomes a decentralized group constitued by various subsidiaries specialized in different business: basic telephony, data transmission, mobile, public use, information and advertising, multimedia, international communications, international business, etc. For some of these areas the divisions already existed but other will be created.

Telefónica began to apply real cost policy to its tariffs. Local calls have increased subtantially, compensating decreases in provincial, national and international calls.

Other important price reductions applied have been also:

-leased lines -20%
-mobile telephony -15%

According to *Telefónica* the price reductions meant a diminution of benefits estimated in 50.000 M PTA (315 M ECU)

	1993	1994	94/93
Employees	74,340	72,207	-2.86
Revenue	1,220,084 M PTA 7,677 M ECU	1,283,536 M PTA 8,076 M ECU	5.20
Net benefits	84,837 M PTA 534 M ECU	91,734 M PTA 577 M ECU	8.13

8.1.1. Basic telephone services

	1993	1994	94/93
Lines	14,253,500	14,685,400	3.03%
Ibercom lines	548,300	656,700	19.77%

(Ibercom is a direct dialling service to internal extensions in large organizations from outside)

Lines/100 inhab.	36.4	37.5	3.02%

Urban digitization	47.8%
Inter-urban digitization	91.1%

Isdn-Basic access	26,636
Isdn-Primary access	2,009

Isdn service in 1994 covered 70% of the Spanish provinces.

8.1.2. International communications

	1994	94/93
Terrestrial circuits	24,700	4.3%

Km of optical fibre submarine cables departing from Spain: 14,980

Leased circuits	1,217	
Packet switching (Ksegments)	2,270,460	11,5%

In July 1994 *Telefónica* acquired a 25% of *Unisource,* the consortium created by *PTT Telecom* (The Netherlands), *Telecom PTT* (Switzerland) and *Telia* (Sweden).

8.1.3. Mobile services

Mobile telephony is available to 90% of the country and 98% of the inhabitants.

	1993	1994	94/93
Clients	257,261	411,930	60%

The cellular service *MoviLine* is being backed in 1995 by the digital GSM service *MoviStar*. As it was said above, the second GSM operator *Airtel* has begun to compete in 1995.

8.1.4. Data transmission

Iberpac, the X.25 Spanish packet switched network, was the first of its kind in Europe en 1971 (at that time named *Red Especial de Transmisión de Datos* and working with *Telefónica*'s own transmission protocol *Rsan*).

In 1994 the capacity of the network growth 11.1% with the addition of 51 new nodes. The number of connections rised a 6.4%.

In April 1994 dial-up X.28 users enjoyed important improvements awaited for a long time: a unique national number to have access to *Iberpac* and increased speed to 9,600 bps. Up until then the maximum available speed was 1,200 baud and users had a NUI valid only for one local node.

At the same time, 8 competitors to *Iberpac* providing access to international hosts began to announce their services both in journals and newspapers.

The best situated is *BT-Global Network Services*, because in 1993 this company had bought the private network of *Banco Santander*, with nodes in 35 Spanish cities, although not all of them very powerful (some of them have few ports).

Other suppliers are *Infonet*, *Sprintnet*, with only a local node in Madrid, and *Dunsnet*, with nodes in Madrid and in Barcelona, but giving access only to *Dialog* and *Data-Star*, besides *Dun & Bradstreet*.

Some hosts (*Reuters*, *CompuServe*, *IBM*) have private nodes. In 1975 *IBM* installed nodes in 17 Spanish provinces.

The network funded by the Basconian regional government *Sarenet* (formerly *Spritel*), with local nodes in Madrid, Barcelona, Bilbao, Vitoria and San Sebastián provides various telematic services and a gateway to many national and foreign hosts, as well as to the Spanish (*Ibertex*) and French (*Télétel/Minitel*) videotex services, and to Internet. In January 1995 *Sarenet* has been privatised.

Data transmission has an annual business value of:

50,000 M PTA (314.63 M ECU),

equivalent to 8% of the telecommunications total market.

8.2. National computer industry

Most of the following information has been taken from **Sector informático y parque de ordenadores en España. 1994**, published by the *Asociación Española de Empresas de Tecnologías de la Información (Sedisi)* --Spanish association of information technologies companies-- and the *Ministerio de Industria y Energía (Miner)* --Spanish government ministery of industry and energy-- in 1995 (see the complete reference under Bibliography annex).

Terminological foreword

Turnover
Total sales invoiced by companies uniquely for computing products and services, both in Spain and abroad.

Gross domestic market (GDM)
Total turnover once deducted the exports.

Net domestic market
GDM once deducted endogenous activity.

Endogenous activity
Double counting due to "cascaded" transactions among intermediaries. Also refered

as "indirect" sales (not direct to the end users).

Value added
According to the accountancy plan, values added to the various products and services through the different production cycle phases.

General situation

In 1994, the Spanish computing industry seemed to recover from its recent years crisis, and after having increased with a rate of 9.2% in 1994, it was likely that in 1995 would overpass the historical maximum achieved in 1991, reaching a total sales volume on 1,000 billion pesetas (10^{12} PTA), --about 6,290 M ECU-.

Nevertheless, data known at the closing date of this MSSTUDY shows that the optimistic projections --due maily to the particularly good results of the last quarter of the year, usually the best one in this sector--, were erroneous. The growth in the first quarter of 1995 has been 4.3% and in the second quarter only 2.2%. There is a hope that the 4th quarter of 1995 will see a positive reaction, based mainly in the expected sales increase of personal computing.

The exact figure in 1994 was 933,383 M PTA (M ECU 5,873.4), that it is only 5.2% higher than the one obtained five years ago.

Spain accounts for 4.1% of the European Economic Area's computing industry.

The above figure results of the combination of two main factors: a 7.9% growth in the domestic computing market and a good performance of the exports (17.3% growth rate).

The domestic computing market gross value was 790,260 M PTA (M ECU 4,972.7).

Deducting the so called "endogenous" activity (sales inside the computing industry), the net domestic market grew at the rate of 7.2%, what is well above the 4.4% average estimated for the whole European market.

Banking and financial customers weights one third of the sales (33.8%). The public sector decreases its procurements by the first time. Instead, industry customers regain its computing investment pace at the 9.6% rate --nevertheless its 16% contribution to the sales figure is very much lower than in other developed countries.

73.6% of market value was a matter of companies controlled by foreign investors. At the same time, the concentration rate is still very high: 20.6% of market value generated by hardware and 29.2% by software were in the hands of the market leader (IBM). Instead, concentration is weak in computing services: the market leader accounts for only 8.4% of the segment market value.

Exports, with a value of M PTA 143,123 (M ECU 900.61) --17,3%

increase, as it was said above-- went 85% to the European Union countries. Exports are considered one of the strengths of the Spanish computing industry.

Imports amounted 430,370 M PTA (M ECU 2,708.13) --4.0% increase-. As usual, the trade balance was negative (-287,487 million PTA), although slightly less than the previous year.

Employment fell again; at the end of 1994 the Spanish computing industry payroll included 47,743 people (4.3% less than one year before). The improvement in industry productivity is raised by the turnover per employee rate: from 17.0 M PTA (K ECU 106.97) in 1993 to 19.5 M PTA (K ECU 122.70) in 1994.

About 75% of the employees enjoy long term contracts, and 60% of the human resources have an university degree. Those not having it have suffered most of the employment decrease (-8.6%).

Users of computer systems are estimated to be 160,000. This leds to the figure of 200.000 the total number of jobs generated by the computing sector in Spain.
Regarding R&D activities, the survey shows expenditures of 31,415 M PTA (M ECU 197.68), decreasing by 6.6%. This figure means the ratio R&D/turnover fallen at 14% rate. In line with this trend, human resources dedicated to R&D activities gave up 404 posts.

The application process for specific initiatives related to the EU 4th Framework Programme began in December 1994. So, R&D funding fell from 14% in 1993 to 8.1% in 1994, while companies R&D own resources grew from 73.2 to 77.1%. Authors of the survey concludes that if European funding had followed the previous pattern, an increase of 6 to 10% in R&D would be possible in 1994.

Available figures showed that the crisis and recuperation of computing industry were contemporaneous to the recession and recovery in Spanish economy. At the end of 1994, this industry weights by 1.22% of GDP and employs the 0.44% of non agrarian manpower. This can not measure the important impact that it offers to the rest of the national industries.

In M ECU

	1993	1994	%
Total turnover	5,377.3	5,873.0	9.2
Gross domestic market	4,609.6	4,972.8	7.9
Net domestic market	3,850.1	4,126.9	7.2
Endogenous activity	759.5	845.9	11.4
Exports	767.8	900.6	17.3
Imports	2,603.5	2,708.1	4.0
Trade balance	-1,835.8	-1,807.5	-1.5
Production value	2,277.3	2,467.3	8.3
Total added value	2,448.5	2,573.3	5.1

Computing gross domestic markets:			
Hardware	2,325.5	2,597.6	11.7
Software	515.4	530.9	3.0
HW maintenance	488.6	484.7	-0.7
Computing services	1,134.7	1,189.2	4.8
Supplies	145.3	170.4	17.3
Total GDM	4,609.5	4,972.7	7.9
Direct sales	3,187.9	3,363.4	5.5
Indirect channels sales	662.2	763.5	15.3
Total net dom. market	3,850.1	4,126.8	7.2
Number of employees	49,889	47,743	-4.3
Turnover/employee (K ECU)	110.1	123.1	14.7
R&D expenditure	211.7	197.7	-6.6
R&D expenditure/turnover	3.93%	3.36%	-14.5

8.2.1. Hardware

A 11.7% leap in hardware sales was decisive for the industry's annual performance, since this segment contributes with more than half (56.5%) to the Spanish market value.

Hardware maintenance was the only segment with a decrease (-0.7%) in 1994. The trend is explained by changes in the inner structure of this activity as well as a consequence of a serious fall in pricing during the periode.

Supplies --always a small fraction of the market but a good indicator of the activity level-- grew at 17.4% rate. Here are included diskettes, tapes, printer paper, cartridges, toner, etc.

In M ECU

	1993	1994	%
CPUs	1,482.0	1,615.4	9.0
Storage systems	160.0	194.2	21.4
Printing systems	272.3	355.6	30.5
Other peripherals	164.6	165.3	0.4
Parts and components	52.1	58.4	12.1
Data transmission HW	194.4	208.6	7.3
Total hardware GDM	2,325.5	2,597.6	11.7
Microcomputers	758.4	832.7	9.8
Workstations	77.3	91.5	18.3
Small systems	264.2	302.5	14.4
Medium systems	140.7	148.2	5.3
Large systems	241.5	240.6	-0.3
Total CPUs	1,482.0	1,615.4	9.0

"Data transmission hardware" includes: modems, PAD (personal assistants), network cards, routers, bridges, etc.

"Large systems" cost more than 100 M PTA (K ECU 629) --storage cost not included.

"Medium systems" cost between 21 and 99 M PTA (K ECU 0.13 - 0.62) --storage cost not included.

"Small systems" cost between 2 and 20 M PTA (K ECU 12.6 - 126) --in this category storage is included in the price.

"Worksations" are desktop equipment using *risc* architecture.

"Microcomputers" or "personal computers" use a microprocessor *Intel*, *Motorola*, *PowerPC* or a compatible one. Of course, storage is included in the machine price.

Microcomputer market breakdown

In M ECU.

	1993	1994	%
Desktop	603.4	662.9	9.8
Portable	129.9	143.9	9.8
Servers	25.2	26.0	3.3
Total	758.4	832.7	9.8

8.2.2. Software

Compared to the important growth of hardware, software only increased 3.0% and computing services 4.8%, what means a reduction of these segments shares in the Spanish market, the opposite to the last five years trend.

In M ECU

	1993	1994	%
Operating systems	162.8	169.2	4.2
Development tools	85.4	86.4	1.2
Database software	88.1	93.4	6.0
Communications SW	29.4	31.4	6.5
Vertical applications	69.7	64.0	-9.1
Horizontal applications	80.0	86.1	7.6
Software GDM	515.4	530.9	3.0
Software maintenance	141.0	144.1	2.2
Consulting	147.4	135.2	-8.2
Training	54.0	55.0	1.8

Custom-tailored SW	464.6	472.5	1.7
System integration	*n/a*	101.5	*n/a*
Outsourcing	95.4	101.8	6.8
Data processing services	67.2	62.9	-6.5
Value added services	66.8	71.5	7.2
Other services	98.2	44.5	-54.7
Services GDM	1,134.7	1,189.2	4.8

"Value added services" include electronic mail, videotex, EDI (electronic data interchange), EFT (electronic fund transfer), etc.

"Other services" include data transfer, data transcription, etc.

8.3. State of IT-applications in different parts of the economy and society

8.3.1. Videotex (*Ibertex*)

8.3.1.1. General overview

It is difficult to ascertain both the current volume, the potential use and the possible evolution of the Spanish videotex (offered under the service name *Ibertex* by Telefónica).

The general opinion is not very much in favour of it, because in previous years it was announced publicly too much without being able yet to offer really attractive services. It sounds now like "public administration maquettes for official inaugurations" and any eventual new services have to overcome a high amount of incredulity.

Nevertheless, and in spite of being an "old" technology, its noticeable penetration achieved in some narrow segments might allow it to continue being used for some years, unless another option be seen as a clearly better alternative.

Videotex services in Spain reached a third or fourth place in the European ranking, after France and Germany, and in a similar situation as The Netherlands and Italy. This relative flourishment was possible thanks to the funds given by the EU's STAR Programme (Specialized Telecommunications for the Advance of Regions), administered by the Spanish government (*DG de Telecomunicaciones* or *DGTel*, Ministry of Transports and Telecommunications), and the own promotion of Telefónica. But all that was not enough to make of it a successful system.

Our feeling is that if Telefónica had implemented the improvements of May 1994 only two years before (2,400 - 9,600 bps and 80 columns, conditions which had been asked repeteadly to Telefónica by banks and other information/service providers), Ibertex would had been able to really take off. The improvements arrived too late.

Some organizations, specially those that installed videotex services with an initial fund from any of the various public administrations (chambers of commerce, local governments, small and medium size enterprises joint ventures, professional associations, etc.), are going to continue offering videotex services because currently they don't have enough resources to migrate to WWW. Not for profit institutions have been able to set up small videotex services that continue to operate with an affordable deficit.

Ibertex still have an important advantage over WWW: for profit information providers have an easy and comfortable way to collect charges to their clients as Telefónica cares of this task through the monthly invoices for telephone basic services. The migration to WWW will be slow unless it is implemented a similar system in the WWW environment to collect small charges to small or occasional clients. Giving credit card numbers or establishing password systems are deterrents for many people.

According to the ads in specialized journals, it is evident that various erotic services are able to survive through videotex.

8.3.1.2. Volume of business

We are considering only **information.** Other studies of the videotex sector have included also related equipment: modems, terminals and servers, which might distort our aim.

Our field operation to gather data about the videotex information industry has not got a very exhaustive picture of the situation.

The addresses of the *Catálogo de Servicios Ibertex* (see the bibliography) was used to send about 185 questionnaires to videotex server organizations that were selected for their professional services and for having a noticeable interest value.

Two bad symptoms, the amount of returned mail (around 10%), and the very small number of respondents, could give and idea that the sector is not very healthy. It have many ephemeral companies and services.

We were not able to get figures comparable to those given by *Telefónica* and widely echoed by the *Asociación de Usuarios de Videotex de España (Auve)*:

FIGURES CORRESPONDING TO 1994

Number of videotex calls:	11,476,762
Number of hours:	1,541,796
Information/services servers:	600
Users/clients:	1,200,000
Number of terminals:	575,000

According to the analysis of the videotex services provided in the *Catálogo de Servicios Ibertex* of *Fundesco/Fuinca*, related to 1993, the 600 information/services providers can be splitted in:

Public administration	34%
Not for profit organizations	12%
Private companies	54%

It is difficult to calculate how many of these services are given free of charge, because some public administration ones are charged, and some private companies ones are not --offering pieces of information for free as advertising method.

If we estimate that 3/4 of the public administration and the not-for-profit organizations offer the service fully free of charge, we would get the figure of 34 x 3/4 + 12 = 37% of services given for free.

DISTRIBUTION OF CALLS ACCORDING TO THE PRICE LEVEL

Number (kiosk level)	Cost to users (VAT **not** included --15% in 1994--)		% of calls
	PTA/min	ECU/h	
031	10	3.78	56%
032	21	7.92	28%
033	28	10.57	9%
034	80	30.20	6%
035	use negligeable (035 is a collected call service)		
036	80	30.20	0.2%

(036 is the international videotex access to Minitel)

According to the above figures, almost 56% of the traffic is free of charge, i. e., the information or service provider does not recover any costs.

ESTIMATION OF THE MARKET VOLUME

We assume that the connection time per call is the same in all kiosk levels (8.06 min/call):

031 1.5418 M hours x 3.78 ECU/h x 0.56 = 3.2637 M ECU

032 1.5418 M hours x 7.92 ECU/h x 0.28 = 3.4191 M ECU

033 1.5418 M hours x 10.57 ECU/h x 0.09 = 1.4667 M ECU

034 1.5418 M hours x 30.20 ECU/h x 0.06 = 2.7937 M ECU

036 1.5418 M hours x 30.20 ECU/h x 0.002= 0.0931 M ECU

TOTAL .... 11.0363 M ECU

Part of this amount, collected by Telefónica with the monthly telephone invoices, was transfered to information/service providers:

032 1.5418 x 0.28 x 3.78 ECU/h = 1.6318 M ECU

033 1.5418 x 0.09 x 6.04 ECU/h = 0.8382 M ECU

034 1.5418 x 0.06 x 24.16 ECU/h = 2.2350 M ECU

TOTAL .... 4.7050 M ECU

There are information providers that offer their service through the kiosk level 031, but previously their users have had to sign a contract and then they have to enter a password to use the service. This makes to rise further the above amount, probably overpassing the 5 M ECU.

Our problem now is to try to elucidate how much of this amount (the income of the information/services providers), corresponds to "professional" use.

On other section, the *Fundesco/Fuinca* study divides the videotex services in the following activity sectors:

Banking	5.2%
Agriculture/stock farming/fishing	4.9%
Medicine/health	3.1%
Transport	2.4%
Food	2.2%
Real state	2.2%
Insurance	1.5%
Building	1.5%
Pharmaceutics	1.5%
All the rest	2.6%
Total professional services	27.1%

(data refered to 1993)

In terms of connection hours, *Fundesco/Fuinca* splits the total (both free and paid services) in:

1.	Commercial services (information+transactional)	22.2%
2.	Mail services	18.4%
3.	Electronic directories	14.4%
4.	Banking	13.2%
5.	Entertainment	11.3%
6.	Other professional	11.2%
7.	Transport/tourism	4.6%
8.	Education	2.7%
9.	Information about the own institution	2.1%

(data refered to 1993)

According to various experts, most *Ibertex* mail services are for entertainment purposes.

The "professional" information total (in a broad sense) could be found adding the items 1, 3, 4, 6, 7 and 9:

22.2 + 14.4 + 13.2 + 11.2 + 4.6 + 2.1 = 67.7%

None of the above analysis can assess us exactly about the dimension of the **professional non free** videotex market. Our particular guess would be a percentage of the total higher than 27.1% and lower than 67.7%, and perhaps 40% would be quite approximate.

Consequently, the total revenue of the Spanish videotex professional sector would be:

5 M ECU x 0.4 = 2 M ECU

As it is stated in Table 3.1, in our survey we got the figure 1.438 M ECU, i. e., a representativity in terms of revenue of 1.438/2 = 72% (Table 2).

Note: Although we have obtained the above estimate of the total videotex market, in the tables we have ignored it and we have included only the data that we got from the questionnaires, as them have allowed us to fullfill all the variables. It has been different in audiotex, where we only have been able to get a total estimate (see the next section) which has been entered only in tables 5.1, 5.2, 6.1 and 6.2.

8.3.2. Audiotex

In Spain "audiotex" has a much broader meaning that simple voice information. Audiotex is synonimous to premium rate services, including chat line, party line, erotic conversations, etc.

Under this heading there are offered many types of information services like general news, sport news, weather forecast, awakening service, time, etc., most of them non professional.

The Spanish telephone company, *Telefónica*, is offering all these general services though 09x numbers, some of them already available since many years ago, long before than the word "audiotex" was invented.

In 1992 *Telefónica* created the public audiotex service with the general number 903, in which *Telefónica* charged the users (potentially every telephone user) on behalf of the content or the service providers.

An important scandal was produced in the country when the media reported various cases of families having been invoiced thousands of ECU for the 903 usage by their children. Consumer organizations complained and the Government obliged *Telefónica* to stop temporarily the service.

Afterwards *Telefónica* continued the service establishing two numbers:

903. Users have to write previously to *Telefónica* in order to be able to have access this service.

906. Free (paying) access for everybody.

In principle, it seems that the erotic services would be channelled through 903 and the rest, among of them the professional information services, through 906.

Theoretically *Telefónica* controls that there are not erotic services in 906 and monitors the services from time to time.

Cost of the *Telefónica* 90x services:

	8 AM-10 PM	10 PM-8 AM & weekends
Cost to users (invoiced by *Telefónica*)	**65** PTA/min 0.41 ECU/min	**46** PTA/min 0.29 ECU/min
Tranfered by *Telefónica* to providers	**26** PTA/min 0.16 ECU/min	**31** PTA/min 0.20 ECU/min

Volume of business

It has been extremely difficult to get data or even an estimation of the audiotex market in Spain.

We got zero answers from our questionnaires addressed to potential providers of professional information. Therefore, we approached *Telefónica* to know the global figures, but they did not wanted to give any data, due probably to the rarefied situation after the above mentioned scandals. The company seems very cautious now. Nevertheless, this secrecy made us arise the suspicion that perhaps the 906 service is not fully free of erotic services.

Finally we were able to get some integrated figures (903 + 906 together) through an irregular but reliable source of information. According to the data that we got, in 1994 there were 33 companies providing 465 different services, that received 19.2 million calls.

The total sales figure for the telephone company was M PTA 3,800 (M ECU 23.91), approx. half of this having been paid to information/service providers (M PTA 1,900 = M ECU 11.96).

The number of users of 906 is not known, but it seems that 903 had about 50,000 subscribers in 1994.

An article in the newspaper *El Periódico de Catalunya*, 6 Nov. 1995, p. 16, reported about the (erotic) service 903 of having 20,000 subscribers and earning M PTA 9,500 (M ECU 59.78), but we don't know the reliability of these figures. That article estimated also in 15,000 M PTA (M ECU 94.39) the expense of erotic services through long distance calls originated in Spain to Canada, Hong Kong, Philippines, Santo Domingo and other foreign countries. All these services flourished after the restrictions imposed on the much cheaper national service 903 of *Telefónica*.

Besides 90x, there are many other possible audiotex services using normal numbers, but these are still more difficult to control. In this group there are many local and regional public administration information services, free of charge, but there are also some professional expensive ones, because the current tariff of 906 is too low for them to recover costs.

Some providers of professional information services are awaiting for the long time ago announced new number 9065, that would cost PTA 500/min (ECU 3.17/min) to end users. This tariff would allow them to make some adequate profit.

After having held various telephone interviews with various audiotex providers and the two audiotex associations existing in Spain (*Asociación Española de Proveedores de Audiotex, Aespa*, in Madrid, and *Asociación de Proveedores de Audiotex, APA*, in Barcelona), we estimated that the volume of business of the profesional information services in audiotex is very low, probably only about 5% of the total. Therefore:

Estimated audiotex professional information market in 1994.

M ECU 11.96 x 0.05 = M ECU 0.6

Fuinca reported it to be M PTA 600 = M ECU 3.77 in 1992, but it is not clear whether non professional information services were included or not in this figure provided by *Telefónica*.

8.3.3. PC base

The *Miner/Sedisi* report, taking data from the consulting company *Computer Intelligence* (bibliographic reference not given), informs about the number of computers in use or installed in companies in Spain. Unfortunately, the figure of personal computers **does not include the PCs installed in private homes.**

Computers installed in companies (in units)

System size	1993	1994	%
Large systems		928	
Medium systems		4,745	
Small systems		74,368	
Personal computers	2,013,100	2,135,000	6

Some sources estimate the number of PCs installed in homes around

600,000

This would makes a total PCs base of:

2,735,000

In the questionnaires sent to the Spanish computer industry agents, *Miner/Sedisi* (see mentioned Bibliography) included 12 specific technologies in order to evaluate their prospective importance in the sector:

1. Knowledge engineering
2. Re-engineering
3. CIM
4. Production management
5. CAD/CAM (Computer aided design / manufacture)
6. GIS (Geographical information systems)
7. Multimedia
8. Value added software
9. Document management
10. Development methodologies
11. Object oriented software
12. Systems security

According to the results of the survey (page 3.46 of the *Miner/Sedisi* report), only **Multimedia** was expected to have an important growth in 1995.
In a second place there were also **Document management** and **Object oriented software** and much more behind would be **Knowledge engineering.** For the rest of the technologies analyzed the expected growth was moderate.

See section 10.7. for information on multimedia in Spain.

8.3.4. Teleworking

Teleworking is almost inexistent in Spain. Contrary to this, at present there is a tendency to allow less flexible work hours, both within public administrations and companies.

Nevertheless in Spain there is the Secretary of *EC Telework/Telematics Forum (Ectf)*:
Fundación Universidad-Empresa
Santa Cruz de Marcenado, 33
28015 Madrid
Tel.: +34-1-541 72 64; fax: 559 92 74

The current *Ectf*'s Chairman is Mr. Eduardo Barrera, of *Inmark*.

The *Ectf*'s Secretary has confirmed us that there are no data about teleworking in Spain.

See also section 10.8.

8.3.5. Distance learning

Since about 20 years in Spain exists the *Universidad Nacional de Educación a Distancia (Uned)*, the open university system.

In October 1995 in Catalonia has begun to operate the *Universitat Oberta de Catalunya (UOC)*, that wants to be a fully telematic or virtual campus. The students are equiped with multimedia PCs and isdn connections in their homes. Moreover they will use traditional media like books and videocassettes, and will meet personally their teachers each semester.
In its first course *UOC* is teaching 100 students on Enterprise Economy and 100 on Psycho-pedagogy.

8.3.6. Home banking

According to a report of the consulting firm *DBK*, series *Competitors*, abstracted in the economic newspaper *Cinco Días, 29 September 1995*, the number of banks offering telephone banking services along the last years has been:

Year	Banks
1992	5
1993	8
1994	13
1995	25 (estimated)

The same report indicates that the number of users of these services doubled in 1994, being 750,000. This figure was expected to rise up to 1,700,000 at the end of 1995.

9. Economic and political infrastructure

9.1. General economic situation

BASIC MACROECONOMIC INDICATORS (1992)

		Ranking Europe-19	Ranking World
Territory	504,782 Km2	3rd	51st
Population	39,077,000 inhabitants	6th	28th
Population density	77 inhab / Km2		
GNP	418,280 M ECU	5th	8th
Annual GNP average growth 1985-1992	3 %		
GNP / capita	10,704 ECU	15th	37th
GDP	444,100 M ECU		
GDP / capita	12,121 ECU		
Inflation	5.9 % (1992)		
Inflation	4.9 % (1993)		
Inflation	4.3 % (1994)		
Annual inflation average 1985-1992	6.9 %		
Active workers	16,580,000 (1992)		
	18,240,000 (1993)		
Unemployment	22.7 % (1993)		
	24.3 % (1994)		
Interest type	9.9 % (1994)		
Public deficit	6.7 % of GDP		
Public debt	62.7 % of GDP		
Exports	53,032 M ECU (11.9 % of GDP)		
Imports	74,862 M ECU (16.9 % of GDP)		
Balance	-21,830 M ECU (1992)		
Balance	-21,100 M ECU (1993) approx.		
Balance	-19,900 M ECU (1994) approx.		

Unless stated explicitly, all the above indicators refer to 1992.

After 3 years of recession due to the industrial crisis, the Spanish economy seemed having recovered the dynamic momentum that had in 1991. Nevertheless, the first half of 1995 was less good than expected.

According to the *Instituto Nacional de Estadística (INE)* --National institute of statistics-- the GDP (gross domestic product) grew 2% in real terms (6.3% taking current prices).

Investments had a good perspective (5.4% increase in the last quarter of 1994), but private consumption growth was modest and public consumtion was decreasing.

	1993/92	1994/93
Private consumption	-2.0	0.9
Public consumption	2.3	0.2
Gross creation of fix capital	-10.5	1.0
Domestic demand	-4.1	0.7
Goods and services exports	8.3	17.7
Goods and services imports	-5.1	11.0
Gross domestic product	-1.1	2.0

Source: *INE*

The growth of exports was the highest in the last 25 years, due to the general international reactivation of the trade, and to the peseta devaluation. Although at the end of 1994 a desacceleration was perceived. 68.2% of the exports went to the EU.

According to *INE*, the Industrial production index (IPI) grew by 7.1%, and at the begining of 1995 its interannual value was 13.9%.

Employment changed its trend from negative to positive: in acute contrast with the 423,000 jobs lost in 1993, the net balance for 1994 was the creation of 47,000 jobs. Nevertheless, unemployment continues to be estabilized at approximately 24% rate and it is one of the important worries of the Spanish society. According to *Banco de España* (the Spanish central bank), employment is created only if the production grows more than 2.5%.

The inflation, measured with the *Índice de Precios al Consumo (IPC)*, was 4.3% in 1994, only 0.6% better than in 1993 (4.9%).

9.2. National information policy

There is not a national information policy in Spain that coordinate, stimulate or regulate the production of databases. The efforts are more focused in the infrastructures than in the "infostructures" or contents (see chapter 7.6. "Research and development").

As **Alfons Cornella,** professor at *Esade* private business university, states in an article published the weekly supplement *Ciencia y vida* of the newspaper *La Vanguardia* on October 21st 1995: "It is necessary that Spain abandon the idea of the information highways as mere continent (the wires) and, instead, discuss the contents (the information that should be available). It would be ironical that we treat only the 'infrastructure' and we forget about the 'infostructures, where at the end it will be the real competition. The responsibility of the administrations is clear here".

"The information originated in the public sector should be the axe around which it should be structured a business information system to solve the Spanish companies' needs. All the disperse databases should be made available through a unique distributor. A basic offer, low priced, that would stimulate the Spanish information industry to use the same electronic media for distributing their information".

The *Ministry for the Public Administrations (MAP)* has published recently (March 1995) the 2nd. edition of the *Directorio de servicios de información electrónica de la Administración General del Estado* (see Bibliography). This is a very valuable tool for the knowledge of the 429 Spanish public administration information systems available online, videotex, audiotex, cd-rom, diskette, local searching, etc. (see Bibliography under Section 13.5).

Also included in the *Directorio* are e-mail services, electronic data interchange (EDI), electronic fund transfer (EFT), point-of-sale terminals (POS) and booking systems.

Of the 429 information services listed, only 310 are distributed in some way. The rest are used locally by the producer only. Out of these, 146 are available without restrictions to the general public. Of the 146, 58 (40%) are offered free of charge.

9.3. National IT policy, especially in the area of telecommunications

This is a short list of Spanish and European legislation about telecommunications:

1987 *Ley de Ordenación de las Telecomunicaciones (LOT)* --telecommunications regulation law.

1990 European Directive 388/90

1991 Terminals liberalization.

1992 *LOT* modification.
Opening to competition radio paging service.

1993 Opening to competition data transmission, closed user group radiotelephony, and local radio paging.

1994 Opening to competition Automatic Mobile Telephony.
License concession for trunking (mobile radio-communication for closed user groups).
License concession for GSM.
Opening to competition Public Use Telephony (except street's cabins).
Bill (*proyecto de ley*) about cable telecommunications.

1995 Authorization to resale the usage of leased lines.
Vsat services liberalization.

1998 Opening to competition basic telephone services and infrastructures.

9.4. Other relevant national policies
e.g., for R&D, education, small and medium-sized companies, less favoured regions, modernisation of public administration, cultural affairs

n/a

9.5. Handling of relevant legal and regulatory issues
e.g.,copyright, personal data protection, ownership, product liability for electronic information services, regulations of media, etc.

Ley Orgánica 5/1992, October 29th, de *Regulación del tratamiento automatizado de los datos de carácter personal (Lortad)*

Ley 30/1992, November 26th, de *Régimen jurídico de las administraciones públicas y del procedimiento administrativo común*.
Título IV, capítulo 1, artículo 37: *Derecho de acceso a archivos y registros*.

10. Qualitative Assessments

10.1. General trends and developments in the target markets

Some online ascii databases have improved slowly in the last years, but others that in its begining had some expectations to become something more than a maquette, almost have desappeared, not having been able to afford for the production plus the distribution costs.

Only very few online ascii databases are really attractive to users for being both exhaustive and updated.

The creation of *Asedie*, the Spanish association of distributors of electronic information three years ago, has begun to give tangible results and has helped very much to reactivate the market of the online and cd-rom media.

After the frustrating videotex service experience, staying in place but languidishing during 13 years, currently there is a lot of hope for WWW based services, centralized by the new tcp/ip access service *Infovía* of *Telefónica* (see chapter 10.6.).

Also a trend is perceived among publishers to timidly enter in the multimedia publishing, as the cd-rom readers base is increasing. Publishing is traditionally a quite strong industry in Spain, with noticeable exports to Latinamerica.

Spain has been always behind in information usage, in comparison for instance to its economic development.

Some of the causes of this situation are:

-Lack of habit using libraries in schools and universities.

Students were educated as inventing the wheel in their doctorate dissertations or final projects, i. e., only academic exercices instead of real contributions to the world's state of the art.

-Scarce research in companies, that prefered to pay royalties instead of researching. The Spanish patent system was protectionist until 1986 and copying foreign inventions was relatively easy until that time.

-Lack of knowledge of foreign languages. During the Franquism regime (1939-1975) foreign languages were considered a matter "non grata" and were very much neglected. Both from government and the media it was created a fobia against foreign languages as "invaders" of the national sovereignty. The film dubbing (translation) has been an important industry and in the Spanish TV channels it has been very rare to be able to hear films spoken in original versions.

For many years people have been considering languages just as "cultural" matters like music or art, instead of working tools. Still now, the general knowledge of fluent English language is very low, and this impedes the participation of most Spanish professionals in the international arenas, as well as difficults the search of information in foreign databases.

-As a result of the preceding paragraph, Spanish databases are produced in general with short sighted objectives and for the small local use only.

-There is a vicious feedback where bad quality of databases leads to low use, and the low use do not incentivate an improvent of the quality. Therefore, most database producers and hosts can survive only with subsidies of the public administrations.

10.2. Competitive strength of national suppliers in these markets

It is hoped that the strong Spanish publishing industry that until now has kept aside of the electronic media, enter finally in this activity.

There is a feeling that the above series of experiences, although most of them unfortunately unsuccessful, will have finally the result of pushing the Spanish information industry to the level it has to have, in accordance with the other national industries, the GNP and the population.

Spain should play a more decisive rol in providing electronic information products to other Spanish speaking countries, not forgetting the Spanish speaking population in the United States. This will be favoured by the telecommunications links and the general globalization of the markets.

10.3. Competitive weaknesses of national suppliers in these markets

We could say that there is too much involvement of the public administrations in the database production and distribution, but really we should say that there is too little involvement of the private sector.

Refering to the public sector information services, the more tangible, there is a lack of a general policy in order to avoid duplication of efforts, to fill the information gaps and to make available the row data to private companies in order they can produce better value added information products. Public administrations are not aware of making profit of the information they produce and very costly databases and reports serve only to a few politicians or officials.

In general terms, there is not a serious commitment in public administrations to provide regularly **updated** data.

Important exceptions to the above are, among others, are: *EFE* (news), *BOE* (Spanish legislation), *INE* (official statistics), *OEPM* (patents and trademarks), *IMPI* (sme company information) and *ICEX* (import-export company information).

10.4. Competitive strength on the demand side of these markets

Potential users are eager of having available updated catalogues and directories, company information and in general full text databases in Spanish. These niche markets are currently only incipient.

10.5. Competitive weaknesses on the demand side of these markets

There is a hope that the traditional lack of interest of Spanish professionals in using the information produced by other professionals will disappear soon, specially when easier and more user-friendly electronic information sources exist.

As it was said before, a strong difficulty for using scientific databases up until now has been also the lack of foreign languages knowledge. Nevertheless, this factor, that we think important, has been low rated by the respondents to our two surveys (see section 5.5. "Barriers of use").

10.6. State of development of the "information superhighways"

There is an increasing number of Internet access providers and Web pages makers. In 1994 there were only *RedIRIS*, the academic and R+D network, and three private companies. In December 1995 the list is about 25.

In Summer 1995 *Telefónica* began the tests of its new service *Infovía*, a national tcp/ip network offering access to information and service providers, as well as to Internet providers (*Telefónica* itself do not give Internet access to individuals, only to intermediary companies). *Infovía* was launched officially on December 15th 1995.

End users will benefit very much of the service because it cost like a local call (less than 1 ECU/hour) and are able to dial the same telephone number throughout the country (055).

Telefónica gives access to the existing videotex services through *Infovía,* but while finishing this report still there are some pending questions in relation to this service. Other telephone companies already operating in Spain in data transmission complained about this monopolistic situation and the Spanish *Telecommunications General Directorate (DGTel)*, of the *Ministry of Civil Works, Transport and Environment (Moptma)*, stopped for some weeks the operation of *Infovía.*

Infovía uses a customized version of the browser *Mosaic* for which *Telefónica* has paid the licences and distributed hundreds of thousands of copies free of charge in cd-roms inserted in the main PC journals and magazines. In the cd-rom there is also a *Cept1* videotex emulator and other software.

10.7. State of development of "multimedia"

Various studies evaluate the number of cd-rom readers in Spain at the end of 1994 between 60,000 (*Matra-Hachette Multimedia*) and 90,000 (*BSI Multimedia*). Probably the difference is due to the definition and degree of real "multimedia" considered. It seems that finally the real figure was higher than forecasts: about 100,000 units.

According to **Yolanda Arribas**, *Fuinca*, and **Mariano Sanz**, *Fundesco*, authors of a chapter of *The Multimedia Yearbook. 1995*, and of its updated version published in Spanish in the newsletter *Boletín Fundesco* (see Bibliography annex), in 1994 almost 100% of the multimedia applications were running on PC, and only 20% of them had a simultaneous Macintosh version. Very few were Mac only productions.

The same authors cite *Datamonitor* projections for multimedia in training and education in various countries. The Spanish ones are not very impressive:

1995	2000		2005	
0	136	M PTA	10,013	M PTA
0	0.8558	M ECU	63.0	M ECU
	0.005%	of the EU	1.35 %	of the EU

Other latter reports are a little more optimistic.

In the Spanish business journal *Cinco Días*, 19 October 1995, p. 23, a report of **Enrique Domingo** informs about the following *BSI Multimedia* estimates for the end 1995:

Increase of multimedia software: 1,200%
Increase of cd-rom readers sales: 315%

Total number of cd-rom readers sold at the end of 1995:

315,000 (estimation)

During *Telecom'95* in Geneva (Switzerland), October 1995, the *International Telecommunications Union (ITU)* presented its *Report on the World Development of the Telecommunications* with a ranking of countries ordered according their multimedia development capability.

Based on the following Spanish ratios per 100 inhabitants:

-Telephone lines = 37.1
(in section 8.1.1. *Telefónica* calculates 37.5 lines / 100 inhabitants)
-TV sets = 42
-PCs = 7

the Report concludes that Spain is the 10th among the European countries in multimedia and the 17th in the world.

There is the *Asociación Española de Empresas Multimedia (Asedem)* that gathers some companies producing multimedia products. They have organized twice a multimedia congress, as well as courses and seminars.

10.8. Socio-economic problems of the emerging "information society" (teleworking, distance learning, etc.)

Although teleworking is almost inexistent, as it was said in section 8.3.4., it is seen in Spain as a good prospective way of working, with clear advantages, but also as a potential dangerous tool in hands of the companies for dividing their labour force and weaken ever more the trade unions. This could result in an unfair exploitation of the home workers, that will be defenceless.

Teleworking will accelerate the outsourcing trends of the companies, allowing them to have maximum flexibility to adapt to new market options and to be competitive.

10.9. Assessment of future prospects in the different areas.

Please see sections above.

11. Conclusions

Please see sections above.

12. Statistical annexes (part I)

Standard tabulations

Supply side survey

Tab. 1: Response Rates

	TYPE OF SUPPLIERS								
No. of	**Hosts retrospec.**	**Hosts real-time (***)**	**Videotex services**	**Audiotex services**	**Electronic-mail services**	**CD-ROM distrib.**	**Other offline distrib.**	**Other suppliers**	**Total**
Relevant (**) organizations (a)	20	19	(35)	(15)	6	23	(20)	-	**138**
Responses (b)	17	19	10	0	3	19	3	-	**71**
Full usable responses (c)	17	19	8	0	3	19	3	-	**69**
Response rate (d)*	0,85	1	0,23	0	0,5	0,83	0,15	-	**0,5**

$$*(d) = \frac{(c)}{(a)}$$

** We consider "relevant" only organisations that do not offer their services/products fully free of charge and that supply information for professional purposes

Figures in brackets are rough estimates

*** 13 financial, 6 other real time

( )= estimated figure

Tab. 2: Representativity of Survey Results (in terms of revenues)

	TYPE OF SUPPLIERS							
No. of	Hosts retrospec.	Hosts real-time	Videotex services	Audiotex services (*)	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Other suppliers
Information (revenues etc.) from responses in % (c)/(b)	100	100	90	-	100	100	100	-
Representativity for the total population (est.) in %	95	100	72	0	95	80	40	-

(*) See section 8.3.2 for an estimation of the business volume of audiotex in Spain

Tab. 3.1: Characterization of Full Usable respondents

	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Nº of employees (full-time equiv)	462 N=15	127 N=5	610 N=3	54 N=8	58 N=3	202 N=18	165 N=3	**1678 N=55**
% (est.) of total employees	20,30%	37,69%	22,75%	4,74%	100,00%	17,49%	4,66%	**15,00%**
Revenue (ECU)	11.859.149 N=17	13.101.096 N=13	62.220.768 N=6	1.438.006 N=8	1.894.059 N=3	17.239.821 N=19	1.503.920 N=3	**109.256.819 N=55**
% (est). of total revenue (*)	80,10%	90,29%	99,98%	7,23%	100,00%	33,95%	42,06%	**65,16%**

(*) Please note that this ratio is: electronic information revenue/total revenue

Tab 3.2: Characterization of Full Usable Respondents for the Eight Different Types of Suppliers (see Tab. 3.1) (by No. of Employees)

Nº of employees	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
1-5	4	3	0	6	1	7	0	**21**
6-10	3	0	0	1	1	7	1	**13**
11-15	2	1	0	0	0	1	1	**5**
21-30	1	0	1	1	0	1	0	**4**
31-50	1	0	0	0	1	2	0	**4**
51-100	4	1	0	0	0	0	0	**5**
more than 100	0	0	2	0	0	0	1	**3**
Total	**15**	**5**	**3**	**8**	**3**	**18**	**3**	**55**

Tab. 3.3: Characterization of Full Usable Respondents for the Eight Different Types of Suppliers (see Tab. 3.1) (by Revenue Class)

Revenues 1994 in ECU	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Under 100.000	3	1	0	3	0	3	0	**10**
100 to 199.999	5	3	1	1	0	0	0	**10**
200 to 299.999	0	2	0	0	0	0	0	**2**
300 to 399.999	1	0	0	1	0	1	0	**3**
400 to 499.999	0	1	0	0	2	1	1	**5**
500 to 599.999	1	1	0	1	0	0	0	**3**
600 to 699.999	2	1	3	0	0	2	0	**8**
700 to 799.999	0	1	0	1	0	1	0	**3**
800 to 1 Million	0	1	0	0	0	1	1	**3**
More than 1 Million	5	2	2	1	1	10	1	**22**
Total	**17**	**13**	**6**	**8**	**3**	**19**	**3**	**69**

Tab. 4.1: Human Resources (in Full-time Equivalents)

Categories	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Management/ administration	81,71 N=15	42,2 N=3	42,9 N=2	4,34 N=8	12 N=3	27,81 N=16	16,43 N=3	**227,38** **N=50**
Sales/marketing	48,7 N=15	25,9 N=3	21,9 N=2	4,6 N=8	16,3 N=3	42,2 N=16	4,6 N=3	**164,11** **N=50**
Data gathering/editorial	213,4 N=15	13,8 N=3	276 N=2	11,8 N=8	9 N=3	26,7 N=16	92,1 N=3	**642,73** **N=50**
Technical	100,8 N=15	27,1 N=3	106,2 N=2	33,3 N=8	20,8 N=3	52,7 N=16	50,5 N=3	**391,3** **N=50**
Other	17,4 N=15	0 N=3	3 N=2	0 N=8	0 N=3	1,5 N=16	1,4 N=3	**23,34** **N=50**
Total	**462,01**	**109**	**450**	**54,04**	**58,1**	**150,91**	**165,03**	**1448,86**

Tab. 4.2: Human Resources (in Full-time Equivalents) (in %)

Categories	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Management/ administration	17,69% N=15	38,72% N=3	9,53% N=2	8,03% N=8	20,65% N=3	18,43% N=16	9,96% N=3	**15,69% N=50**
Sales/marketing	10,54% N=15	23,76% N=3	4,87% N=2	8,51% N=8	28,06% N=3	27,96% N=16	2,79% N=3	**11,33% N=50**
Data gathering/editorial	46,19% N=15	12,66% N=3	61,33% N=2	21,84% N=8	15,49% N=3	17,69% N=16	55,81% N=3	**44,36% N=50**
Technical	21,82% N=15	24,86% N=3	23,60% N=2	61,62% N=8	35,80% N=3	34,92% N=16	30,60% N=3	**27,01% N=50**
Other	3,77% N=15	0,00% N=3	0,67% N=2	0,00% N=8	0,00% N=3	0,99% N=16	0,85% N=3	**1,61% N=50**
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Tab. 5.1: Overall Revenues (ECU) by Type of Suppliers and Type of Services/Products

Type of services/products	TYPE OF SUPPLIERS								
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Audiotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Database production	1207358	0	151021	20920	-	40902	1766577	871519	**4058296**
Retrospec. online database services	8375388	0	0	21646	-	305818	721127	0	**9423979**
Real-time info services	75511	11340440	30229426	0	-	76455	0	22024	**41743855**
Videotex services	41132	0	0	430637	-	40776	0	0	**512545**
Audiotex services	0	0	0	0	600000	0	0	0	**600000**
Electronic-mail services	0	0	0	340	-	838294	0	0	**838634**
Fax-based info services	33943	0	0	0	-	0	0	33036	**66979**
Other online services	0	0	0	0	-	0	0	0	**0**
CD-ROM	1095510	1384362	0	0	-	0	10179087	33036	**12691994**
Other offline info products	257368	0	0	128813	-	0	640363	544306	**1570849**
Printed products	239086	281906	0	2643	-	0	28694	0	**552329**
Other services/products	327968	94388	0	263972	-	25485	1930169	0	**2641982**
Total	**11653263**	**13101096**	**30380448**	**868970**	**500000**	**1327729**	**15266017**	**1503920**	**74701443**

Tab. 5.2: Overall Revenues (in %) by Type of Suppliers and Type of Services/Products

Type of services/products	TYPE OF SUPPLIERS								
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Audiotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Database production	10,36%	0,00%	0,50%	2,41%	-	3,08%	11,57%	57,95%	**5,43%**
Retrospec. online database services	71,87%	0,00%	0,00%	2,49%	-	23,03%	4,72%	0,00%	**12,62%**
Real-time info services	0,65%	86,56%	99,50%	0,00%	-	5,76%	0,00%	1,46%	**55,88%**
Videotex services	0,35%	0,00%	0,00%	49,56%	-	3,07%	0,00%	0,00%	**0,69%**
Audiotex services	0,00%	0,00%	0,00%	0,00%	100,00%	0,00%	0,00%	0,00%	**0,80%**
Electronic-mail services	0,00%	0,00%	0,00%	0,04%	-	63,14%	0,00%	0,00%	**1,12%**
Fax-based info services	0,29%	0,00%	0,00%	0,00%	-	0,00%	0,00%	2,20%	**0,09%**
Other online services	0,00%	0,00%	0,00%	0,00%	-	0,00%	0,00%	0,00%	**0,00%**
CD-ROM	9,40%	10,57%	0,00%	0,00%	-	0,00%	66,68%	2,20%	**16,99%**
Other offline info products	2,21%	0,00%	0,00%	14,82%	-	0,00%	4,19%	36,19%	**2,10%**
Printed products	2,05%	2,15%	0,00%	0,30%	-	0,00%	0,19%	0,00%	**0,74%**
Other services/products	2,81%	0,72%	0,00%	30,38%	-	1,92%	12,64%	0,00%	**3,54%**
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Tab. 6.1: Geographical Analysis of Total Revenues (in %)

Country	TYPE OF SUPPLIERS								
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Audiotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Home country	98,62%	91,43%	92,98%	100,00%	100,00%	99,38%	95,34%	100,00%	**94,42%**
EU & EFTA countries	1,31%	6,08%	1,47%	0,00%	0,00%	0,62%	2,03%	0,00%	**2,31%**
North America	0,00%	0,69%	0,74%	0,00%	0,00%	0,00%	0,79%	0,00%	**0,59%**
Rest of the world	0,07%	1,80%	4,81%	0,00%	0,00%	0,00%	1,84%	0,00%	**2,68%**
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Note: "Home country" figures include imports (M ECU 18,6 in total)

Tab. 6.2: Geographical Analysis of Total Revenues (in ECU)

Country	TYPE OF SUPPLIERS								
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Audiotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Home country	11492630	11978127	28247146	868970	600000	1319548	14554310	1503920	70564653
EU & EFTA countries	152978	796448	447778	0	0	8180	309423	0	1714808
North America	0	90927	223889	0	0	0	120646	0	435463
Rest of the world	7654	235593	1461634	0	0	0	281638	0	1986520
Total	11653263	13101096	30380448	868970	600000	1327729	15266017	1503920	74701443

Note: "Home country" figures include imports (M ECU 18,6 in total)

Tab. 7.1: Analysis of Revenues by Subject Area (ECU)

	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Finance/stock exchange/banking	217093	11364351	0	377553	76455	187882	88096	**12311430**
Company profiles/ credit ratings	5774652	352383	0	41546	193811	1860610	805447	**9028449**
Statistic	186616	0	0	340	45936	125851	22024	**380767**
Further business and economic info	1273955	0	2238890	32983	132773	862615	294177	**4835393**
Legal information	1994617	481380	0	15621	117356	6027159	55060	**8691193**
Patent information	268852	0	0	0	50970	46533	0	**366355**
Scientific/technical/ medical info	1507067	53487	0	358805	296379	2409462	0	**4625199**
Government info/political news	128368	0	22285707	680	322053	313733	239117	**23289658**
Travel information	0	0	0	180	91997	191508	0	**283684**
Other information	302043	849495	0	41263	0	1434702	0	**2627503**
Total	**11653263**	**13101096**	**24524598**	**868970**	**1327729**	**13460054**	**1503920**	**66439630**

Number of respondents=66

Tab. 7.2: Analysis of Revenues by Subject Area (in %)

	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Finance/stock exchange/banking	1,86%	86,74%	0,00%	43,45%	5,76%	1,40%	5,86%	18,53%
Company profiles/ credit ratings	49,55%	2,69%	0,00%	4,78%	14,60%	13,82%	53,56%	13,59%
Statistic	1,60%	0,00%	0,00%	0,04%	3,46%	0,93%	1,46%	0,57%
Further business and economic info	10,93%	0,00%	9,13%	3,80%	10,00%	6,41%	19,56%	7,28%
Legal information	17,12%	3,67%	0,00%	1,80%	8,84%	44,78%	3,66%	13,08%
Patent information	2,31%	0,00%	0,00%	0,00%	3,84%	0,35%	0,00%	0,55%
Scientific/technical/ medical info	12,93%	0,41%	0,00%	41,29%	22,32%	17,90%	0,00%	6,96%
Government info/political news	1,10%	0,00%	90,87%	0,08%	24,26%	2,33%	15,90%	35,05%
Travel information	0,00%	0,00%	0,00%	0,02%	6,93%	1,42%	0,00%	0,43%
Other information	2,59%	6,48%	0,00%	4,75%	0,00%	10,66%	0,00%	3,95%
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Number of respondents=66

Tab. 8.1: Analysis of revenues by User Groups (ECU)

User Groups	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Manufacturing industry	4004576	886306	0	167135	582187	1620160	225588	7485952
Service Sector	3.923.841	11.038.083	25.103.513	331.947	326.584	5.474.699	288.199	46.486.864
Government and public administrations	1.577.332	355.529	5.276.935	79.327	40.902	4.503.283	979.121	12.812.429
Universities polytechniques, etc.	816.729	767.692	0	3.030	0	872.926	11.012	2.471.388
R&D	1.172.213	0	0	340	20.451	199.255	0	1.392.258
Primary and secondary schools	158.572	0	0	23.786	0	162.857	0	345.216
Private households	0	53.487	0	218.491	357.606	1.585.859	0	2.215.443
Others	0	0	0	44.915	0	880.957	0	925.872
Total	**11653263**	**13101096**	**30380448**	**868970**	**1327729**	**15299997**	**1503920**	**74135423**

4,86

Tab. 8.2: Analysis of revenues by User Groups (in %)

User Groups	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Manufacturing industry	34,36%	6,77%	0,00%	19,23%	43,85%	10,59%	15,00%	10,10%
Service Sector	33,67%	84,25%	82,63%	38,20%	24,60%	35,78%	19,16%	62,71%
Government and public administrations	13,54%	2,71%	17,37%	9,13%	3,08%	29,43%	65,10%	17,28%
Universities polytechniques, etc.	7,01%	5,86%	0,00%	0,35%	0,00%	5,71%	0,73%	3,33%
R&D	10,06%	0,00%	0,00%	0,04%	1,54%	1,30%	0,00%	1,88%
Primary and secondary schools	1,36%	0,00%	0,00%	2,74%	0,00%	1,06%	0,00%	0,47%
Private households	0,00%	0,41%	0,00%	25,14%	26,93%	10,37%	0,00%	2,99%
Others	0,00%	0,00%	0,00%	5,17%	0,00%	5,76%	0,00%	1,25%
Total	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%	100,00%

Tab. 8.3: Number of Users by Type of Services/Products (in Absolute Values)

Type of services/products	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Hosts retrospec.	9.368	0	75	400	600	375	43	**10.861**
Hosts real-time	30	6.455	620	0	200	0	4	**7.309**
Videotex services	1.064	0	0	4.520	100	0	0	**5.684**
Audiotex services	0	0	0	0	0	0	0	**0**
Other online services	99	0	0	0	2.800	0	0	**2.899**
Total	**10.561**	**6.455**	**695**	**4.920**	**3.700**	**375**	**47**	**26.753**

Tab. 8.4: Number of Users by Type of Services/Products (in %)

Type of services/products	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Hosts retrospec.	88,70%	0,00%	10,79%	8,13%	16,22%	100,00%	91,49%	**40,60%**
Hosts real-time	0,28%	100,00%	89,21%	0,00%	5,41%	0,00%	8,51%	**27,32%**
Videotex services	10,07%	0,00%	0,00%	91,87%	2,70%	0,00%	0,00%	**21,25%**
Audiotex services	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	**0,00%**
Other online services	0,94%	0,00%	0,00%	0,00%	75,68%	0,00%	0,00%	**10,84%**
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Tab. 9: Number of CD-ROM's sold per Country and Year

	1994	
Number of titles	1642	N=29
Number of units	41.361	N=29
- Stand alone CD-ROM's	24.451	N=17
- Network applications	317	N=17

SPAIN

Tab. 10.1: Cost Recovery (in %)

	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Market income	43,54%	112,30%	47,58%	29,69%	22,68%	88,59%	14,06%	**53,31%**
Public subsidies and public expense	40,15%	0,00%	49,86%	42,99%	9,67%	2,66%	86,18%	**38,91%**
Further sources	0,51%	0,00%	0,00%	1,16%	0,00%	8,79%	0,00%	**1,21%**
Total	**84,20%**	**112,30%**	**97,44%**	**73,85%**	**32,35%**	**100,05%**	**100,24%**	**93,44%**

Tab. 10.2: Market income, subsidies and investments (ECU)

	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Market income	11653263	13101096	30380448	868970	1327729	15266017	1503920	74101443
Public subsidies	68948	0	31840320	535024	566330	458601	0	33469223
Public expense	10676907	-	-	723109	0	-	9218591	20618607
Investments	4227822	-1434702	1636064	765395	3961162	-8208	-25170	9122362
Further sources	136939	0	0	34011	0	1515203	0	1686152
Total cost	26763878	11666394	63856832	2926509	5855221	17231613	10697341	138997788

Notes:
"Public subsidies" are single payments of governments to private companies
"Public expense" are the costs not recovered by the government agencies
"Investments" are the costs not recovered by the private companies

Tab. 11.1: Profitability (No. of Answers) - in Terms of Operating Costs

Type of suppliers	TYPE OF SUPPLIERS							
	Database production	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Total
Total answers	**17**	**13**	**6**	**8**	**3**	**19**	**3**	**69**
yes	11	13	5	3	2	17	2	53
no	6	0	1	5	1	2	1	16
1995	1	0	0	0	0	0	0	1
1996	0	0	0	1	0	1	0	2
1997	0	0	0	1	1	1	0	3
Later o Never	5	0	1	3	0	0	1	10

Tab. 11.2: Profitability (No. of Answers) - in Terms of Full Costs

Type of suppliers	TYPE OF SUPPLIERS							
	Database production	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Total
Total answers	17	13	6	8	3	19	3	69
yes	8	11	3	2	1	11	2	38
no	9	2	3	6	2	8	1	31
1995	1	1	0	0	0	0	0	2
1996	1	1	0	1	1	1	0	5
1997	0	0	0	0	0	5	0	5
Later o Never	7	0	3	5	1	2	1	19

Tab. 12.1: Analysis of Costs (ECU)

Cost categories	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Staff costs	12.890.737,36	3.397.978,83	37.399.035,98	1.971.076,28	1.998.798,12	6.299.886,74	6.261.090,63	70.218.603,94
Investment expenditure	9.506.093,71	3.690.582,56	22.069.872,51	612.904,14	2.224.040,07	6.186.139,78	4.153.085,24	48.442.718,01
Other costs	4.197.148,21	1.972.715,49	2.500.157,31	336.242,59	1.632.382,74	4.690.841,05	283.164,90	15.612.652,30
Total 1(1)	**26.593.979,28**	**9.061.276,88**	**61.969.065,81**	**2.920.223,01**	**5.855.220,93**	**17.176.867,56**	**10.697.340,77**	**134.273.974,25**
Costs of data gathering/processing/ editorial	15.275.038,70	4.329.276,73	39.534.225,20	1.956.059,10	1.517.575,10	6.378.733,67	6.725.166,44	75.716.074,94
Costs of technical operations	5.913.442,15	2.875.067,64	18.681.961,77	524.212,17	2.067.921,82	5.963.954,04	3.704.740,81	39.731.300,41
Costs of sales/marketing	3.247.601,91	966.536,20	3.752.878,84	342.406,15	1.296.800,87	2.938.661,05	204.507,99	12.749.393,00
Costs of user service/training	1.856.947,61	890.396,31	0,00	66.114,29	711.845,10	1.175.270,76	62.925,53	4.763.499,59
Other costs	300.948,92	0,00	0,00	31.431,30	261.078,04	720.248,05	0,00	1.313.706,31
Total 2(2)	**26.593.979,28**	**9.061.276,88**	**61.969.065,81**	**2.920.223,01**	**5.855.220,93**	**17.176.867,56**	**10.697.340,77**	**134.273.974,24**
Total costs (1994)(3)	**26.763.878,23**	**11.666.393,99**	**63.856.831,83**	**2.926.509,27**	**5.855.220,93**	**17.231.612,78**	**10.697.340,77**	**138.997.787,78**

(1): number of respondents=55
(2): number of respondents=55
(3): number of respondents=69

Tab. 12.2: Analysis of Costs (in %)

Cost categories	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Staff costs	48,47%	37,50%	60,35%	67,50%	34,14%	36,68%	58,53%	52,30%
Investment expenditure	35,75%	40,73%	35,61%	20,99%	37,98%	36,01%	38,82%	36,08%
Other costs	15,78%	21,77%	4,03%	11,51%	27,88%	27,31%	2,65%	11,63%
Total 1(1)	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**
Costs of data gathering/processing/editorial	57,44%	47,78%	63,80%	66,98%	25,92%	37,14%	62,87%	56,39%
Costs of technical operations	22,24%	31,73%	30,15%	17,95%	35,32%	34,72%	34,63%	29,59%
Costs of sales/marketing	12,21%	10,67%	6,06%	11,73%	22,15%	17,11%	1,91%	9,50%
Costs of user service/training	6,98%	9,83%	0,00%	2,26%	12,16%	6,84%	0,59%	3,55%
Other costs	1,13%	0,00%	0,00%	1,08%	4,46%	4,19%	0,00%	0,98%
Total 2(2)	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**	**100,00%**

(1): number of respondents=55
(2): number of respondents=55

Tab. 13: Outsourcing Activities (No. of Answers)

Tasks	TYPE OF SUPPLIERS							
	Hosts retrospec.	Hosts real-time (financial)	Hosts real-time (other)	Videotex services	Electronic-mail services	CD-ROM distrib.	Other offline distrib.	Total
Data gathering/ processing/editorial	**15**	**5**	**3**	**8**	**3**	**18**	**3**	**55**
In	5	4	3	4	2	7	3	**28**
Out	4	0	0	1	0	2	0	**7**
Both	6	1	0	3	1	9	0	**20**
Software development and maintenance	**15**	**5**	**3**	**8**	**3**	**18**	**3**	**55**
In	2	3	0	4	0	6	1	**16**
Out	6	0	0	0	0	5	0	**11**
Both	7	2	3	4	3	7	2	**28**
Technical operations	**15**	**5**	**3**	**7**	**3**	**16**	**3**	**52**
In	8	4	1	2	2	6	1	**24**
Out	4	0	0	2	0	5	0	**11**
Both	3	1	2	3	1	5	2	**17**
Public relations	**14**	**5**	**3**	**7**	**3**	**18**	**3**	**53**
In	13	5	3	7	3	15	3	**49**
Out	0	0	0	0	0	0	0	**0**
Both	1	0	0	0	0	3	0	**4**
Marketing	**15**	**5**	**3**	**8**	**3**	**18**	**3**	**55**
In	12	5	3	7	1	14	3	**45**
Out	0	0	0	0	0	1	0	**1**
Both	3	0	0	1	2	3	0	**9**
Other	**0**	**0**	**0**	**1**	**1**	**2**	**0**	**4**
In	0	0	0	0	1	1	0	**2**
Out	0	0	0	0	0	1	0	**1**
Both	0	0	0	1	0	0	0	**1**

12. Statistical annexes (part II)

Standard tabulations

Demand side survey

Tab. 14: Response Rates

SPAIN

	TYPE OF SERVICES OFFERED*								
	Online electr. info services	Offline electr. info services	Offline library serv./archiv.	Training/further eduction	Consulting	Database product./input	Distr. of softw. progr./pack.	Other info services	TOTAL
No. of relevant organizations (a)	70	60	1,100	10	5	30	15	10	
Responses (b)	19	17	35	0	0	17	0	0	
Full usable responses (c)	19	15	34	0	0	16	0	0	
Response rate (d)**	0.27	0.25	0.03	0	0	0.53	0	0	

* The information broker institute should be defined by the main type of services offered (e. g. electronic or non-electronic).

** $(d) = \frac{(c)}{(a)}$

In Spain there are about 1,300 libraries and information centres that are "intermediaries". We have chosen a sample (290) of the ones that use some type of electronic information media.
The total full usable response rate of the sample has been 29%.

It is artificial to classify the intermediaries for the above main activities, as most of them use similarly various media. Moreover, most of the consulting and software distribution activities are carried out by information providers.

As we abandoned the classification stated in this page, some of the other tables have been simplified giving an integrated figure only.

Tab. 15: Representativity (in %)

SPAIN

	TYPE OF SERVICES OFFERED								
	Online electr. info services	Offline electr. info services	Offline library serv./archiv.	Training/further eduction	Consulting	Database product./input	Distr. of softw. progr./pack.	Other info services	TOTAL
Information (revenues etc.) from responses in % $\frac{(c)}{(b)}$	100	98	99	0	0	95	0	0	
Representativity for the total population (est.) in %	85	95	80	0	0	70	0	0	

Tab 16: Kind of services offered

Online electr. info services		Offline electr. info services		Offline library serv./archiv.		Training/further education	
68	81,00%	70	83,30%	67	79,80%	45	53,60%

Consulting		Database product./input		Distr.of softw. progr./pack		Document delivery		SDI		Other info services	
37	44,00%	42	50,00%	7	8,30%	15	17,90%	6	7,10%	23	27,40%

Note: We did not ask year of start

Tab. 17: Kind of Sources Used

SPAIN

USAGE \ MEDIA	Printed media	Personal contacts	Internal online	External online	External offline	Other
more than 50%	40	8	19	16	23	0
10% - 50%	23	25	24	28	25	4
less than 10%	19	39	18	28	21	3
never	2	12	23	12	15	77

Tab. 18: Number of Requests per Month

SPAIN

No. of requests per month	TYPE OF SERVICES OFFERED							
	Online electr. info services	Offline electr. info services	Offline library serv./archiv.	Training/further eduction	Consulting	Database product./input	Distr. of softw. progr./pack.	Other info services
0 - 10								
11 - 30								
31 - 90								
more than 90								

Note: Question not asked in our questionnaire

SPAIN

Tab 19: Analysis of Requests by Subject Area

	Finance/stock exchange/ banking	Company profiles/ credit ratings	Further business/ economic info	Legal information	Patent information	Scientific/ technical/ medical info	Government information/ political news	Travel information	Other information
0%	46 54,8%	32 38,1%	28 33,3%	26 31,0%	39 46,4%	22 26,2%	43 51,2%	57 67,9%	79 94,0%
1-10%	31 36,9%	30 35,7%	27 32,1%	30 35,7%	32 38,1%	17 20,2%	28 33,3%	26 31,0%	0,0%
11-50%	7 8,3%	16 19,0%	18 21,4%	16 19,0%	9 10,7%	8 9,5%	12 14,3%	1 1,2%	3 3,6%
51-75%	0 0,0%	6 7,1%	10 11,9%	7 8,3%	2 2,4%	10 11,9%	1 1,2%	0 0,0%	1 1,2%
76-100%	0 0,0%	0 0,0%	1 1,2%	5 6,0%	2 2,4%	27 32,1%	0 0,0%	0 0,0%	1 1,2%
	84 100,0%	84 100,0%	84 100,0%	84 100,0%	84 100,0%	84 100,0%	84 100,0%	84 100,0%	84 100,0%

Tab 20: Human Resources (in Full-Time Equivalents)

Full-time equivalents	Total
Total staff in company (organization) (a)	33963
Information intermediaries specialists (b)	410,8
(b)/(a)	1,21%

SPAIN

See note below table 14

Tab. 21: Allocation of Total Staff Time to Different Activities of Information Brokers (in %)

SPAIN

%	ACTIVITIES								
	Online search	Offline search	Conventional search	Management/ gen. admin. act.	Educ./train./ seminars/conf.	Administration of archives	Producing/ maint. inhouse	Producing maint. external	Other activities
0 - 10									
11 - 50									
51 - 75									
76 - 100									

- Question not asked in our questionnaire
- See also note below table 14

Tab 22: Budget/Expenditure in 1994

SPAIN

	National currency	ECU
Total budget of company/ organization	3.951.205.513	24.863.172
Expenditure for using electronic info services	331.798.017	2.087.857

See note below table 14

Tab 23: Allocation of Total Budget to Different Functions (in %) SPAIN

	FUNCTIONS								
	Online electr. info services	Offline datab. prod./maint.	Offline search	Printed media	Management/ admin.	Outsourcing	Administration of archives	Educ./train seminars/conf.	Other activities
0%	8 9,6%	18 21,7%	13 15,7%	8 9,6%	14 16,9%	32 38,6%	35 42,2%	11 13,3%	77 92,8%
1-10%	37 44,6%	39 47,0%	33 39,8%	32 38,6%	41 49,4%	38 45,8%	44 53,0%	57 68,7%	1 1,2%
11-50%	25 30,1%	18 21,7%	29 34,9%	26 31,3%	23 27,7%	13 15,7%	4 4,8%	14 16,9%	2 2,4%
51-75%	9 10,8%	6 7,2%	6 7,2%	10 12,0%	3 3,6%	0 0,0%	0 0,0%	1 1,2%	2 2,4%
76-100%	4 4,8%	2 2,4%	2 2,4%	7 8,4%	2 2,4%	0 0,0%	0 0,0%	0 0,0%	1 1,2%
Total	83 100,0%	83 100,0%	83 100,0%	83 100,0%	83 100,0%	83 100,0%	83 100,0%	83 100,0%	83 100,0%

Tab. 24:

Expenditures of Information Brokers for Electronic Information Services by Type of Product in 1994 (est. in Ranges) **SPAIN**

	TYPE OF SERVICES USED									
	Retrospec. online services	Real-time services	Videotex services	Audiotex services	Electronic mail services	Other online services	CD-ROM distrib.	Other. offline distrib.	Other optical media	Magnetic media (diskette, etc.)
0%	11	45	47	57	40	77	13	51	71	35
1-10%	16	27	30	25	34	3	25	29	11	31
11-50%	30	9	5	0	8	2	19	2	0	10
51-75%	8	1	0	0	0	0	15	0	0	3
76-100%	17	0	0	0	0	0	10	0	0	3
Total	82	82	82	82	82	82	82	82	82	82

Other offline distrib.

Tab. 25:

Expenditures of information Brokers for Electronic Information Services by Subject Areas in 1994 (est. in Ranges)

SPAIN

	SUBJECT AREA								
Ranges	Finance/ stock exchange/ banking	Company profiles/ credit ratings	Further business/ economic info	Legal information	Patent information	Scientific/ technical/ medical info	Government information/ political news	Travel information	Other information
0%	46	32	28	26	39	22	43	57	79
1-10%	31	30	27	30	32	17	28	26	0
11-50%	7	16	18	16	9	8	12	1	3
51-75%	0	6	10	7	2	10	1	0	1
76-100%	0	0	1	5	2	27	0	0	1
Total	84	84	84	84	84	84	84	84	84

Tab. 26: Important Suppliers in 1994 for Information Brokers

SPAIN

List of suppliers	IMPORTANCE		
	High	Moderate	Low
Dialog	65	25	10
Data-Star	20	20	60
STN International	10	20	70
FT Profile	5	10	85
Reuters	0	0	100
Videotex suppliers	10	10	80
Audiotex suppliers	0	0	100
CD-ROM's	70	20	10
Other			
BOE Spanish Of.Gazette	20	10	70
OEPM Spanish patents	10	20	70

Tab. 27:
Analysis of Revenues in 1994 of Information Brokers by Types of Services Offered **SPAIN**

	TYPE OF SERVICES OFFERED							
	Online electr. info services	Offline electr. info services	Offline library serv./archiv.	Training/ further education	Consulting	Database product./ input	Distr. of softw. progr./pack	Other info services
0%	41	50	58	6[illegible]	61	63	72	65
1-10%	13	20	14	12	12	9	11	3
11-50%	15	10	8	5	10	4	1	5
51-75%	4	3	2	2	1	3	0	6
76-100%	11	1	2	1	0	5	0	5
Total	84	84	84	8[illegible]	84	84	84	84

Tab 28: Customers of Information Brokers in 1994

SPAIN

Internal customers	53,49%
Increase	40
Decrease	13
External customers	46,51%
Increase	39
Decrease	14

See note below table 14

Tab. 29: Analysis of External Customers by Sectors of the Economy

SPAIN

Ranges	SECTORS				
	Manufacturing industries	Service industries	Public sector	Others	TOTAL
0 - 10	4	6	4	0	14
11 - 50	6	4	4	0	14
51 - 75	6	8	6	0	20
76 - 100	5	16	15	0	36

Tab 30: Barriers of Using Electronic Information Services in 1994 (est. by Information Brokers)

SPAIN

Barriers	IMPORTANCE RATING				
	5	4	3	2	1
Lack of awareness	26	24	11	10	5
Lack of experienced staff	9	14	12	13	24
Technical barriers	5	14	15	16	20
lack of user-friendliness	1	7	15	21	25
Info required is not available	10	6	17	21	19
Language problems	4	8	9	20	27
Cost-benefit relation inadequate	4	15	12	17	19
Prices for host services too high	14	20	11	14	13
Staff costs too expensive	4	10	15	17	21
Resistance from management	8	6	10	14	29
Budget reasons	22	15	15	8	12
Network deficiencies	7	7	15	13	27
Further reasons (*)	3	0	0	0	0

(*) -cost of data transmission
-unawareness of the information value
-need to invest in new computer equipment for a better performance and more user-friendlyness

SPAIN

Tab 31: Marketing Activities
Planned by Information Brokers for 1995

Type of activities	IMPORTANCE RATING				
	5	**4**	**3**	**2**	**1**
Visiting customers	13	8	11	10	21
Active participation in congresses	5	4	4	14	30
Active participation in exhibitions	3	2	6	11	36
Presentation of services	24	15	10	9	12
Mailings, direct mail	20	14	12	9	11
Better presentation of search results	13	15	15	9	11
Publication of brochures etc.	31	16	18	7	4
Improvement of customer service	27	17	17	5	5
Participation in info broker associations	8	12	17	17	11
Public Relations	14	12	18	14	8
Others	0	2	1	1	0

13. Appendixes

13.1 Organisations participating in the MSSTUDY

Spain

Generalitat de Catalunya
Department d'Economia i Finances
Institut d'Estadística de Catalunya
Via Laietana, 58
08003 Barcelona (Spain)

Tel.: +34-3-412 00 88; fax: 412 31 45

General Director:	Mr. Jordi Oliveras i Prats
Subdirector Statistical Technical Assistance:	Mr. José A. Casco Robledo
Supervisor:	Mr. Manuel Falguera
Project manager:	Mr. Tomàs Baiget
Advisor:	Mr. Alfons Garín
Statistician:	Mr. Julià Urrutia
Computing:	Mr. Juan-Francisco López
Questionnaires compilation:	Ms. Maria Alba
Secretary:	Ms. Elisabet Aznar

Contact: Mr. Tomàs Baiget
baiget@ines.es

13.2. People interviewed

Ernest Abadal Falgueras, professor, *Escola Universitària de Biblioteconomia i Documentació*, Barcelona.

Isidro Aguillo, electronic information expert of the *Centro de Información y Documentación Científica (Cindoc)*, of the Spanish High Research Council, Madrid.

Francisco-Javier Bobillo, Director general del Libro, *Ministerio de Cultura*, Madrid.

Lluís Codina, documentation software expert, professor at the *Universitat Pompeu Fabra*, Barcelona.

Alfons Cornella, head of the *Centre d'Informació Empresarial* of *Esade (Escuela Superior de Administración y Dirección de Empresas)*, Barcelona.

Jaime Denis, *Instituto de la Pequeña y Mediana Empresa Industrial (Impi)*, Madrid.

Pedro Hípola, professor at the *Facultad de Biblioteconomía y Documentación de Granada;* coordinator of *IweTel*, the Spanish librarians and electronic information users electronic list, Granada.

Begoña Jáuregui Ríos, jefe de Área de Planificación de Sistemas de Información, *Ministerio para las Administraciones Públicas*, Madrid.

Daniel E. Jones, expert of the *Centre d'Investigació de la Comunicació* (Communication Research Centre), Barcelona.

Carme Mayol, professor, *Escola Univ. de Biblioteconomia i Documentació*, presidenta del *Col.legi Oficial de Bibliotecaris-Documentalistes de Catalunya*, Barcelona.

Pepa Michel, responsable de Documentación, *Oficina de Comisión de la Unión Europea*, Madrid.

Elisa Navas, *Plan Nacional de Investigación y Desarrollo*, Madrid.

Paloma Portela, *Comisión Nacional del Mercado de Valores*. Ex-presidenta de la *Sociedad Española de Documentación e Información Científica (Sedic)* y de la *Federación Española de Sociedades de Archivística, Biblioteconomía y Documentación (Fesabid)*. Madrid.

Juan Rodríguez Bouyssi, jefe de Documentación, *Oficina del Parlamento Europeo*, Madrid.

Jaime Tascón, executive director of *Asedie (Asociación Española de Distribuidores de Información Española)*, Madrid.

Rosa de la Viesca, director of the *Centro de Información y Documentación Científica (Cindoc)*, of the Spanish High Research

Council, Madrid.

Names of people from private companies have been omitted of this list for confidentiality reasons.

13.3. Questionnaires in national language

Questionnaire

Information providers

In Spanish

ASEDIE

ASOCIACION ESPAÑOLA DE
DISTRIBUIDORES DE
INFORMACION ELECTRONICA

Madrid, 23 de junio de 1995

Estimado amigo,

Me pongo en contacto contigo solicitándote unos minutos para que rellenes y nos devuevas el cuestionario adjunto.

Por encargo del ***Programa Impact*** de la DGXIII de la Comisión, estamos realizando el

ESTUDIO DEL MERCADO DE LA INFORMACIÓN ELECTRÓNICA EN ESPAÑA

Es muy importante poder disponer de cifras económicas lo más exactas posible de nuestro sector, sobre el que hasta ahora sólo podemos hacer conjeturas.

Ten en cuenta que el Estudio abarca todos los servicios de información electrónica, tanto los de las administraciones públicas como los de las empresas privadas.

Somos conscientes de que solicitamos algunos datos que son *sensibles* para algunas empresas. Te ofrecemos las máximas garantías de que la información será tratada de forma absolutamente confidencial y de que los resultados que se publiquen tendrán siempre un grado de agregación que hará imposible la identificación de empresas concretas.

De ello se encargará el *Instituto de Estadística de Catalunya*, entidad que ya ha realizado operaciones similares y que trabaja bajo la obligación legal de mantener el secreto estadístico.

ASEDIE

ASOCIACION ESPAÑOLA DE DISTRIBUIDORES DE INFORMACION ELECTRONICA

Generalitat de Catalunya
Departament d'Economia i Finances
Institut d'Estadística de Catalunya

Estudio realizado para la Comisión de la Unión Europea.

Proveedores de productos y servicios de información electrónica para uso profesional en España.

Información sometida a secreto estadístico (Art. 13, Ley 12/89 de la Función Estadística Pública)

Esta encuesta se lleva a cabo con la ayuda de la Comisión Europea en todos los países del Área Económica Europea. Los resultados, obtenidos a finales de 1995, permitirán no sólo conocer el volumen global del sector, sino también la realización de un análisis comparativo entre países.

Período de referencia:

Del 1 de enero de 1994 al 31 de diciembre de 1994

Este cuestionario está dirigido a los proveedores. Si usted es usuario o intermediario de productos o servicios de información en soporte electrónico y desea participar en este estudio, solicite el correspondiente cuestionario a la dirección indicada abajo.

Por favor conteste a todas las preguntas de la forma más completa posible. Al final del cuestionario encontrará definiciones de algunos de los conceptos. Si requiere más ayuda, no dude en ponerse en contacto con nosotros.

Nota: Indique los datos monetarios en pesetas (deducidos los impuestos, si es aplicable) y cíñase exclusivamente al año 1994 por favor.

Devuelva este cuestionario relleno a:

Tomás Baiget
Instituto de Estadística de Catalunya
Subdirección de Asistencia Técnica Estadística
Vía Laietana 58
08003 Barcelona

Teléfono: 93-412 00 88; fax: 412 31 45

2. Tipos de actividad

Indique en cuál de las siguientes categorías clasificaría su Organización (como orientación vea las definiciones que se dan al final del cuestionario).

Señale tantas casillas como sea necesario.

2.1 Productor de información electrónica

1. ( ) Productor de base de datos.
2. ( ) Productor de otros productos (especifíquelos, por favor).

....

2.2 Distribuidor online

1. ( ) Servicio online de búsquedas retrospectivas en bases de datos.
2. ( ) Servicio de información en tiempo real: información financiera.
3. ( ) Servicio de información en tiempo real: otros tipos de información, p. ej., noticias políticas y generales.
4. ( ) Suministrador de servicios en videotex (tanto proveedor de información como servidor).
5. ( ) Suministrador de servicios de audiotex.
6. ( ) Suministrador de servicios de correo electrónico.
7. ( ) Otros servicios online (especifíquelos por favor).

....

....

8. ¿Suministra servicios de información a través de Internet? SI ( ) NO ( )

2.3 Distribuidor offline (sin usar telecomunicaciones)

1. ( ) Distribuidor de CD-ROM, CD-I u otros soportes ópticos.
2. ( ) Distribuidor deinformación en disquetes u otros soportes magnéticos.
3. ( ) Servicios automatizados de alerta o de puesta al día periódica (SDI).
4. ( ) Distribuidor de otros servicios offline (especifíquelos, por favor):

....

2.4 Otros servicios de información (especifíquelos, por favor):

....

....

Definiciones: vea la última página de este cuestionario.

4.3 Por favor, desglose sus ingresos totales según los siguientes conceptos (en pesetas)

1. .... PTA Ventas / volumen de negocio

2. .... PTA Ayudas o subsidios públicos

3. .... PTA Otros ingresos. Especifíquelos, por favor:

....

4.4 ¿En qué porcentaje aumentaron sus **ventas / volumen de negocio** en 1994 en relación a 1993?

En un ....%

5. Distribución geográfica de las ventas (en 1994).

Por favor, desglose sus ingresos por ventas según las siguientes zonas (en porcentaje):

1................% en España

2................% en el resto del Área Económica Europea (UE y EFTA)

3................% en Norteamérica

4................% en el resto del mundo

100 % Total
========

6. Ventas por tipo de servicio o producto (1994)

Por favor, desglose sus ingresos por ventas según los siguientes conceptos:

6.1 Relación entre los productos o servicios electrónicos y los no-electrónicos (publicaciones impresas), en porcentaje:

1.............% Electrónicos (para uso profesional)

2.............% Impresos

100 % Total
========

6.3 Venta de productos multimedia

Haga una estimación de sus ingresos por productos multimedia. Si no trabaja en ellos, pase directamente al apartado 7.

Ingresos por productos multimedia en porcentaje de los ingresos totales por ventas: ....%

Desglose dichos ingresos según los siguientes apartados:
(Aquí los ingresos por multimedia se toman como el 100 %)

Multimedia de tipo 1: texto con gráficos, tablas, imágenes o fotografías
1................ Servicios online
2................ Cd-rom y otros servicios offline basados en PC
Multimedia de tipo 2: texto con audio
3................ Servicios online
4................ Cd-rom y otros servicios offline basados en PC
Multimedia de tipo 3: texto con vídeo
5. .... Servicios online
6. .... Cd-rom y otros servicios offline basados en PC
Multimedia de tipo 4: texto con audio y vídeo
7. .... Servicios online
8. .... Cd-rom y otros servicios offline basados en PC
100 % Total
=========

7. Ingresos por ventas según temáticas (1994)

Desglose por favor sus ingresos según los siguientes tipos de información (indique porcentajes):

1. ....% Financiera / bolsa / banca
2. ....% Perfiles de empresas / crédito
3. ....% Estadística
4. ....% Otra información económica y de negocios
5. ....% Legal
6. ....% Patentes
7. ....% Científica / técnica / médica
8. ....% Gubernamental / noticias políticas
9. ....% Turística / viajes
10. ....% Otra información (por favor, especifique):
................%...
................%...

100 % Total
=========

Definiciones: vea la última página de este cuestionario.

9.2 Por favor especifique los **conceptos de facturación** que su organización aplicó en 1994 a los usuarios de su servicio online:

1. ( ) Por tiempo
2. ( ) Por volumen, p. ej., número de registros extraídos
3. ( ) Suscripción fija anual
4. ( ) Otros. Especifíquelos por favor:

....

....

10. Ventas de cd-roms (1994)

Haga una estimación de las ventas de cd-roms, en valores absolutos:

.... Número de títulos vendidos

.... Número de ejemplares vendidos

Si es posible, desglose esta última cantidad de unidades vendidas en:

.... Cd-roms de uso monopuesto o individual

.... Cd-roms para conectar en red.

11. Beneficios (1994)

11.1 ¿Obtuvo beneficios de sus actividades en el sector de la información electrónica en 1994?
(beneficios = al menos pudo recuperar los costes)

SI	NO	
( )	( )	Sólo los costes operativos
( )	( )	Todos los costes

11.2 En caso contrario, ¿cuándo espera que queden cubiertos?:

1995	1996	1997	Más tarde o nunca	
( )	( )	( )	( )	Los costes operativos
( )	( )	( )	( )	Los costes totales

Definiciones.

Servicios electrónicos para uso profesional = todos los que suministran información en un medio no impreso ni oral. La entrega puede ser online u offline.
Online = el usuario la recibe a través de las redes de telecomunicaciones.
Offline = entrega sin usar telecomunicaciones, p. ej., CD-ROMs.

Productor de base de datos = organización que produce bases de datos online u offline.

Servicio online de búsquedas retrospectivas en bases de datos = *host* clásico, servicio que suministra acceso a bases de datos que pueden contener diferentes tipos de información (bibliográfica, factual, numérica, texto completo, imágenes, etc.), en diversas áreas (científica, técnica, legal, prensa, datos financieros y de empresas, estadísticas, etc.) y relativa a varios períodos de tiempo retrospectivos.

Servicio de información en tiempo real = suministrador de información que se actualiza inmediatamente a medida que se produce. Para los fines de este estudio la definición se extiende a todos los servicios online que se actualizan más de una vez al día.

Suministrador de servicios en videotex = organización que ofrece servicios de información en páginas o pantallas en vez de carácter a carácter.

Suministrador de servicios de audiotex = organización que ofrece servicios de información online que los usuarios reciben oralmente.

Suministrador de servicios de correo electrónico = organización que ofrece servicios que permiten enviar y recibir mensajes a / desde usuarios específicos.

Distribuidor offline = organización que vende o alquila productos o servicios de información electrónica en unidades concretas como CD-ROMs, CD-Is, disquetes, cassettes, cintas magnéticas, boletines y revistas electrónicos, etc., sin usar las redes de telecomunicaciones.

Soportes ópticos = discos que usan tecnologías ópticas, digitales o analógicas, para almacenar información, como CD-ROM, CD-I, CDTV, Data-Discman, etc.

Soportes magnéticos = cintas y discos que usan tecnologías magnéticas para almacenar información.

Servicios de puesta al día (SDI) = servicios continuados de alerta informativa, perfiles, distribución selectiva de información (*selective dissemination of information, SDI*) a partir de bases de datos u otras fuentes electrónicas.

Suministro de documentos = entrega de documentos completos, impresos en papel o microficha (*computer output microform, COM*) o en cualquier soporte electrónico, obtenidos a partir de soportes electrónicos (bases de datos, CD-ROMs, documentos escaneados o digitalizados, etc.).

Otra información económica y de negocios = incluye noticias sobre empresas y negocios, concursos y oportunidades comerciales, datos de mercados, propiedad inmobiliaria, servicios de información --tanto general como especializada-- para la industria, etc.

Información científica / técnica / médica = además de la explicitada, se incluye aquí la información de patentes y normas, y los servicios de información científica --tanto general como especializada--.

Se excluyen de este estudio:

-Servicios de información para uso interno.
-Servicios radiodifundidos por antena de TV accesibles a todo el público (teletexto).
-Servicios puramente informáticos.
-Servicios de gestión de llamadas telefónicas.

Questionnaire

Information providers

In Catalan

Generalitat de Catalunya
Departament d'Economia i Finances
Institut d'Estadística de Catalunya
El Director

Senyors,

Com possiblement ja en tingueu coneixement, l'*Institut d'Estadística de Catalunya* ha signat un conveni amb la *DGXIII (Telecomunicacions i mercat de la informació)* de la *Comissió de la Unió Europea*, per tal d'elaborar les estadístiques del sector de la informació en suport electrònic a Espanya. En l'operació s'inclouen tant els organismes públics sense ànim de lucre, com les empreses privades.

Aquesta acció forma part de l'anomenat *Member States Study (MS Study)*, que es du a terme simultàniament a tots els països de l'Àrea Econòmica Europea.

Després d'una primera fase de recollida de dades identificatives sobre institucions, productes i serveis, hem iniciat ara la fase de quantificar el volums tant de l'oferta com de la demanda.

És per això que us enviem aquest qüestionari, demanant-vos que ens el torneu degudament respost al més aviat possible.

Si a més disposéssiu d'una memòria dels resultats econòmics de la vostra empresa o organització corresponent a 1994, us agrairíem que ens l'adjuntéssiu, també.

Fem un especial esment al fet que el personal del nostre *Institut* treballa sota secret estadístic, segons la **Llei 14/1987 d'estadística de Catalunya**, per la qual cosa podem garantir-vos una estricta confidencialitat en el tractament de les dades i una agregació en els resultats totals que fan impossible la identificació de cap empresa concreta.

Us saluda atentament,

Oliveras

Jordi Oliveras i Prats

Barcelona, 22 de juny de 1995

Via Laietana, 58
08003 Barcelona
Telèfon (93) 412 00 88
Fax (93) 412 31 45

PAPER ECOLÒGIC

Estudi elaborat per a la
Comissió de la Unió Europea

Generalitat de Catalunya
Institut d'Estadística de Catalunya

Via Laietana 58
08003 Barcelona

Proveïdors de productes i serveis d'informació electrònica per a ús professional a Espanya.

Informació sotmesa a secret estadístic (Art. 30 de la Llei 14/1987 d'estadística de Catalunya).

Aquesta enquesta s'està duent a terme amb un ajut de la Comissió de la Unió Europea a tots els països de l'Àrea Econòmica Europea. Els resultats, obtinguts a final de 1995, permetran no sols conèixer el volum global del sector, sinó també l'elaboració d'una anàlisi comparativa entre països.

Període de referència:

De l'1 de gener de 1994 al 31 de desembre de 1994

Aquest qüestionari està dirigit als proveïdors. Si sou usuari o intermediari de productes o serveis d'informació en suport electrònic i desitgeu participar en aquest estudi, sol.liciteu el qüestionari corresponent a l'adreça indicada al peu de la pàgina.

Si us plau, contesteu totes les preguntes de la forma més completa possible. Al final del qüestionari trobareu definicions d'alguns dels conceptes. Si necessiteu més ajuda, no dubteu a posar-vos en contacte amb nosaltres.

Nota. Indiqueu les dades monetàries en pessetes (deduïts els impostos, si això és aplicable) i, si us plau, centreu-vos exclusivament en l'any 1994.

Retorneu aquest qüestionari degudament respost a:

Tomàs Baiget
Institut d'Estadística de Catalunya
Subdirecció d'Assistència Tècnica Estadística
Via Laietana, 58
08003 Barcelona

Telèfon: 93-412 00 88
Fax: 412 31 45

2. Tipus d'activitat.

Indiqueu en quines de les següents categories classificaríeu la vostra organització (com a orientació vegeu les definicions del final del qüestionari).
Assenyaleu-hi tantes caselles com calgui.

2.1 Productor d'informació electrònica.

1. ( ) Productor de base de dades.
2. ( ) Productor d'altres productes (especifiqueu-los-hi, si us plau).

....

2.2 Distribuïdor *online*.

1. ( ) Servei *online* de cerques retrospectives en bases de dades.
2. ( ) Servei d'informació en temps real: informació financera.
3. ( ) Servei d'informació en temps real: altres tipus d'informació, p. ex., notícies polítiques i generals.
4. ( ) Subministrador de serveis en videotex (ja sigui com a proveïdor d'informació o com a servidor).
5. ( ) Subministrador de serveis d'audiotex.
6. ( ) Subministrador de serveis de correu electrònic.
7. ( ) Altres serveis *online* (especifiqueu-los-hi, si us plau).

....

....

8. Subministreu serveis d'informació a través d'Internet? SI ( ) NO ( )

2.3 Distribuïdor *offline* (sense usar telecomunicacions).

1. ( ) Distribuïdor de CD-ROM, CD-I o altres suports òptics.
2. ( ) Distribuïdor d'informació en disquets o altres suports magnètics.
3. ( ) Serveis automatizats d'alerta o de posada al dia periòdica (SDI).
4. ( ) Distribuïdor d'altres serveis *offline* (especifiqueu-los-hi, si us plau):

....

2.4 Altres productes/serveis d'informació *offline* (especifiqueu-los-hi, si us plau):

....

....

Definicions: vegeu l'última pàgina d'aquest qüestionari.

4.3 Si us plau, desglosseu-hi els vostres ingressos totals segons els conceptes següents (en pessetes):

1. .... PTA Vendes / volum de negoci.

2. .... PTA Ajudes o subsidis públics.

3. .... PTA Altres ingressos. Especifiqueu-los-hi, si us plau:

....

4.4 En quin percentatge augmentaren les vostres **vendes / volum de negoci** el 1994 en relació amb el 1993?

En un .... %

5. Distribució geogràfica de les vendes (el 1994).

Si us plau, desglosseu-hi els vostres ingressos por vendes segons les zones següents (en percentatge):

1............... % a Espanya.

2............... % a la resta de l'Àrea Econòmica Europea (UE i EFTA).

3............... % a Nord-amèrica.

4............... % a la resta del món.

100 % Total
=========

6. Vendes per tipus de servei o producte (1994).

Si us plau, desglosseu-hi els vostres ingressos per vendes segons els conceptes següents:

6.1 Relació entre els productes o serveis electrònics i els no-electrònics (publicacions impreses), en percentatge:

1............ % Electrònics (per a ús professional).

2............ % Impresos.

100 % Total
=========

6.3 Venda de productes multimèdia.

Feu una estimació dels vostres ingressos per als productes multimèdia. Si no treballeu amb aquest format, passeu directament a l'apartat 7.

Ingressos per productes multimèdia en percentatge dels ingressos totals por vendes: ....%

Desglosseu-hi els ingressos segons els següents apartats:
(Aquí els ingressos per multimèdia es prenen com el 100%)

Multimèdia de tipus 1: text amb gràfics, taules, imatges o fotografies.
1. .... Serveis *online*.
2. .... Cd-rom i altres serveis *offline* basats en PC.

Multimèdia de tipus 2: text amb àudio.
3. .... Serveis *online*.
4. .... Cd-rom i altres serveis *offline* basats en PC.

Multimèdia de tipus 3: text amb vídeo.
5. .... Serveis *online*.
6. .... Cd-rom i altres serveis *offline* basats en PC.

Multimèdia de tipus 4: text amb àudio i vídeo.
7. .... Serveis *online*.
8. .... Cd-rom i altres serveis *offline* basats en PC.

100 % Total
=========

7. Ingressos per vendes segons temàtiques (1994)..

Desglosseu-hi, si us plau, els vostres ingressos segons els següents tipus d'informació (indiqueu-hi percentatges):

1. .... % Financera / borsa / banca.
2. .... % Perfils d'empreses / crèdit.
3. .... % Estadística.
4. .... % Altres tipus d'informació econòmica i de negocis.
5. .... % Legal.
6. .... % Patents.
7. .... % Científica / tècnica / mèdica.
8. .... % Governamental / notícies polítiques.
9. .... % Turística / viatges.
10. .... % Altres tipus d'informació (si us plau, especifiqueu-la-hi):
.... % ....
.... % ....

100 % Total
=========

Definicions: vegeu l'última pàgina d'aquest qüestionari.

9.2 Si us plau, especifiqueu-hi els **conceptes de facturació** que la vostra organizació va aplicar el 1994 als usuaris del vostre servei *online*:

1. ( ) Per temps.
2. ( ) Per volum, p. ex., nombre de registres extrets.
3. ( ) Subscripció fixa anual.
4. ( ) Altres. Especifiqueu-los-hi, si us plau:

....

....

10. Vendes de cd-roms (1994).

Feu-hi una estimació de les vendes de cd-roms, en valors absoluts:

.... Nombre de títols venuts.

.... Nombre de exemplars venuts.

Si és possible, desglosseu-hi aquesta última quantitat d'unitats venudes en:

.... Cd-roms d'ús monoplaça o individual

.... Cd-roms per connectar en xarxa.

11. Beneficis (1994).

11.1 Vau obtenir beneficis de les vostres activitats en el sector de la informació electrònica el 1994?
(beneficis = almenys vau recuperar els costos)

SI	NO	
( )	( )	Sols els costos operatius.
( )	( )	Tots els costos.

11.2 En cas contrari, quan espereu que quedin coberts?

1995	1996	1997	Més endavant o mai	
( )	( )	( )	( )	Els costos operatius.
( )	( )	( )	( )	Els costos totals.

Questionnaire

Information intermediaries

In Spanish

ASEDIE

ASOCIACION ESPAÑOLA DE DISTRIBUIDORES DE INFORMACION ELECTRONICA

Generalitat de Catalunya
Departament d'Economia i Finances
Institut d'Estadística de Catalunya

Estudio realizado para la Comisión de la Unión Europea.

Uso profesional de productos y servicios de información electrónica en España.

Información sometida a secreto estadístico (Art. 13, Ley 12/89 de la Función Estadística Pública)

Esta encuesta se lleva a cabo con la ayuda de la Comisión Europea en todos los países del Área Económica Europea. Los resultados, obtenidos a finales de 1995, permitirán no sólo conocer las características globales del sector, sino también la realización de un análisis comparativo entre países.

Período de referencia:

Del 1 de enero de 1994 al 31 de diciembre de 1994

Este cuestionario está dirigido a los intermediarios de productos o servicios de información en soporte electrónico, ya sea trabajando por su cuenta o en centros de documentación y bibliotecas y/o gabinetes de estudios.

Por favor conteste a todas las preguntas de la forma más completa posible. Al final del cuestionario encontrará definiciones de algunos de los conceptos. Si requiere más ayuda, no dude en ponerse en contacto con nosotros.

Nota: Indique los datos monetarios en pesetas (deducidos los impuestos, si es aplicable) y cíñase exclusivamente al año 1994 por favor.

Devuelva este cuestionario relleno a:

Tomás Baiget
Instituto de Estadística de Catalunya
Subdirección de Asistencia Técnica Estadística
Vía Laietana 58
08003 Barcelona

Teléfono: 93-412 00 88; fax: 412 31 45

1. Datos de la organización (situación 1994).

Nombre de la empresa u organización:

....

Actividades principales que realiza su empresa u organización:

....

Situación legal: [ ] privada [ ] pública [ ] semi-pública

Número total de empleados en la sede donde Vd. trabaja
(*por favor, indique equivalentes a dedicación completa en 1994*):

....

Nombre de su departamento:

....

Principales actividades de su departamento:

....

Número total de personas de su departamento que trabajan
como intermediarios o profesionales de la información
(*por favor, indique equivalentes a dedicación completa*): ....

Persona de contacto para temas relacionados con esta encuesta:

....

Dirección: ....

....

Código postal: .... Ciudad: ....

Provincia: .... Comunidad autónoma: ....

Teléfono: ( ) .... Fax: ( ) ....

Correo electrónico: ....@..

Asociación(es) de intermediarios de la información de la(s) que son
miembros:

....

2. Actividades como intermediarios de información en 1994.

2.1 ¿Qué servicios ofrecen?

	Si	No
1. Búsquedas en servicios de información electrónica *online*	[ ]	[ ]
2. Búsquedas en servicios de información electrónica *offline* (p. ej. cd-roms)	[ ]	[ ]
3. Búsquedas en biblioteca y archivos	[ ]	[ ]
4. Cursos de formación / educación permanente para el resto de personal	[ ]	[ ]
5. Consultoría	[ ]	[ ]
6. Producción de bases de datos / entrada de datos en bases de datos ajenas	[ ]	[ ]
7. Distribución de programas / paquetes de software	[ ]	[ ]

Otros servicios, *por favor, especifíquelos*:

....

....

---> *Vea las definiciones al final del cuestionario.*

2.2 ¿Qué fuentes de información usan, y con qué frecuencia, para dar respuesta a las demandas de información que reciben?

	% de búsquedas			
Fuentes	En más del 50%	Entre 50 y 10%	En menos del 10%	Nunca
1. Medios impresos (diarios, revistas, libros)	[ ]	[ ]	[ ]	[ ]
2. Contactos personales (colegas, conferencias)	[ ]	[ ]	[ ]	[ ]
3. Bases de datos online internas	[ ]	[ ]	[ ]	[ ]
4. Bases de datos online externas (*hosts* públicos)	[ ]	[ ]	[ ]	[ ]
5. Bases de datos offline (cd-roms)	[ ]	[ ]	[ ]	[ ]
Otras, *por favor, especifíquelas*:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

---> *Vea las definiciones al final del cuestionario.*

3. Presupuesto en 1994

3.1 ¿Qué porcentaje de su presupuesto dedicaron a las siguientes funciones? *(Por favor, haga estimaciones).*

	0-10%	11-50%	51-75%	76-100%
1. Servicios de información online	[ ]	[ ]	[ ]	[ ]
2. Producción y mantenimiento de bases de datos internas	[ ]	[ ]	[ ]	[ ]
3. Producción y mantenimiento de bases de datos externas *(*)*	[ ]	[ ]	[ ]	[ ]
4. Servicios de información electrónica offline	[ ]	[ ]	[ ]	[ ]
5. Medios impresos	[ ]	[ ]	[ ]	[ ]
6. Gestión, administración	[ ]	[ ]	[ ]	[ ]
7. Subcontratación de trabajos a empresas externas	[ ]	[ ]	[ ]	[ ]
8. Administración de archivos	[ ]	[ ]	[ ]	[ ]
9. Formación, asistencia a seminarios y conferencias	[ ]	[ ]	[ ]	[ ]
10. Otras, *por favor, especifíquelas*:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

(*) Si realizan este trabajo a cuenta de otros departamentos u organizaciones.

3.2 ¿A cuánto ascendió su presupuesto total en 1994?
(Suma de todos los costes indicados en 3.1 sin incluir IVA)

aproximadamente .... PTA

Nota:
Las siguientes preguntas se refieren exclusivamente a servicios de información electrónica.

3.3.1 ¿Cuánto gastó su departamento en servicios de información electrónica en 1994?

aproximadamente .... PTA

3.3.2 Desglose el gasto en información electrónica según los siguientes tipos de productos *(haga una estimación).*

	0-10%	11-50%	51-75%	76-100%
1. Búsquedas retrospectivas *online*	[ ]	[ ]	[ ]	[ ]
2. Información en tiempo real (información financiera, noticias, etc.)	[ ]	[ ]	[ ]	[ ]
3. Videotex	[ ]	[ ]	[ ]	[ ]
4. Audiotex	[ ]	[ ]	[ ]	[ ]
5. Correo electrónico	[ ]	[ ]	[ ]	[ ]
6. Otros servicios *online (por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
7. Cd-roms	[ ]	[ ]	[ ]	[ ]
8. Otros servicios de información electrónica *offline*	[ ]	[ ]	[ ]	[ ]
9. Información en otros soportes ópticos *(por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
10. Información en soporte magnético (cinta, disquete, etc.)	[ ]	[ ]	[ ]	[ ]

---> *Vea las definiciones al final del cuestionario.*

3.3.3 Desglose el gasto en información electrónica por temas.
(Haga una estimación).

	0-10%	11-50%	51-75%	76-100%
1. Financiera / bolsa / bancaria	[ ]	[ ]	[ ]	[ ]
2. Perfiles de empresas / información de crédito	[ ]	[ ]	[ ]	[ ]
3. Otra información económica y de negocios	[ ]	[ ]	[ ]	[ ]
4. Legal	[ ]	[ ]	[ ]	[ ]
5. Patentes	[ ]	[ ]	[ ]	[ ]
6. Científica / técnica / médica	[ ]	[ ]	[ ]	[ ]
7. Gubernamental / política	[ ]	[ ]	[ ]	[ ]
8. Viajes, horarios	[ ]	[ ]	[ ]	[ ]
9. Otra *(por favor, especifíquela)*				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

4. Ingresos

4.1 ¿Cuánto ingresaron en 1994 por la venta de productos y servicios de información?

....

4.2 Desglose de forma aproximada por qué servicios obtuvieron los ingresos *(haga una estimación).*

	0-10%	11-50%	51-75%	76-100%
1. Búsquedas en servicios de información electrónica *online*.	[ ]	[ ]	[ ]	[ ]
2. Búsquedas en servicios de información electrónica *offline* (p. ej. cd-roms)	[ ]	[ ]	[ ]	[ ]
3. Búsquedas en biblioteca y archivos	[ ]	[ ]	[ ]	[ ]
4. Cursos de formación /educación para el resto de personal	[ ]	[ ]	[ ]	[ ]
5. Consultoría	[ ]	[ ]	[ ]	[ ]
6. Producción de bases de datos / entrada de datos en bases de datos ajenas	[ ]	[ ]	[ ]	[ ]
7. Distribución de programas / paquetes de software	[ ]	[ ]	[ ]	[ ]
8. Otros servicios de información *(por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

5. Usuarios en 1994

5.1 ¿Para qué tipo de usuarios trabajaron en 1994? *(indique porcentajes).*

.... % usuarios o clientes internos de la institución

.... % usuarios o clientes externos a la institución

5.2 En comparación con 1993, ¿sus ingresos procedentes de los usuarios internos aumentaron o disminuyeron?

[ ] aumentaron [ ] disminuyeron

5.3 En comparación con 1993, ¿sus ingresos procedentes de los usuarios externos aumentaron o disminuyeron?

[ ] aumentaron [ ] disminuyeron

6. Barreras al uso de la información electrónica.

6.1 ¿Cuáles son las causas más importantes de que, tanto Vd. como sus usuarios por sí mismos, no usen (o no usen más) las fuentes de información electrónica?

Muy importante = 5 Poco importante = 1

	Importancia				
	5	4	3	2	1
1. Ignorancia de los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
2. Falta de personal experimentado	[ ]	[ ]	[ ]	[ ]	[ ]
3. Problemas con las tecnologías (PCs, bases de datos, etc.)	[ ]	[ ]	[ ]	[ ]	[ ]
4. Programas complicados	[ ]	[ ]	[ ]	[ ]	[ ]
5. No disponibilidad de la información que se necesita	[ ]	[ ]	[ ]	[ ]	[ ]
6. Problema con los idiomas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Relación coste/beneficio mala	[ ]	[ ]	[ ]	[ ]	[ ]
8. *Hosts* demasiado caros	[ ]	[ ]	[ ]	[ ]	[ ]
9. Costes de personal altos	[ ]	[ ]	[ ]	[ ]	[ ]
10. Resistencia de la dirección	[ ]	[ ]	[ ]	[ ]	[ ]
11. Falta de presupuesto	[ ]	[ ]	[ ]	[ ]	[ ]
12. Problemas con las redes	[ ]	[ ]	[ ]	[ ]	[ ]
13. Otras causas *(por favor, especifíquelas)*					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

6.2 ¿Qué acciones de promoción de sus servicios piensan realizar el próximo año? *(Puntúe su importancia según crea).*

Muy importante = 5 Poco importante = 1

	5	4	3	2	1
1. Visitar a los usuarios o clientes	[ ]	[ ]	[ ]	[ ]	[ ]
2. Ofrecer los servicios en congresos	[ ]	[ ]	[ ]	[ ]	[ ]
3. Poner stand en ferias	[ ]	[ ]	[ ]	[ ]	[ ]
4. Presentar los servicios (demostraciones)	[ ]	[ ]	[ ]	[ ]	[ ]
5. Envíos *(mailings)* tanto generales como selectivos	[ ]	[ ]	[ ]	[ ]	[ ]
6. Mejorar la presentación y entrega de los resultados de las búsquedas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Editar folletos y otros materiales describiendo los servicios	[ ]	[ ]	[ ]	[ ]	[ ]
8. Mejorar la atención a los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
9. Participar en asociaciones de profesionales de la información	[ ]	[ ]	[ ]	[ ]	[ ]
10. Hacer (más) relaciones públicas	[ ]	[ ]	[ ]	[ ]	[ ]
11. Otras *(por favor, especifíquelas)*					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

Muchas gracias por su cooperación

Definiciones.

Audiotex = servicio online en el que los usuarios reciben la información oralmente.

Correo electrónico = servicio que permite enviar y recibir mensajes a / desde usuarios específicos.

Búsqueda retrospectiva = búsqueda de información publicada en períodos de tiempo anteriores (información llamada también *histórica*).

Distribuidor offline = organización que vende o alquila productos o servicios de información electrónica en unidades concretas como CD-ROMs, CD-Is, disquetes, cassettes, cintas magnéticas, boletines y revistas electrónicos, etc., sin usar las redes de telecomunicaciones.

Información en tiempo real = información que se actualiza inmediatamente a medida que se produce. Para los fines de este estudio la definición se extiende a todos los servicios online que se actualizan más de una vez al día.

Online = el usuario recibe la información a través de redes de telecomunicaciones.

Offline = soporte electrónico que no usa telecomunicaciones, p. ej., CD-ROMs.

Otra información económica y de negocios = incluye noticias sobre empresas y negocios, concursos y oportunidades comerciales, datos de mercados, propiedad inmobiliaria, servicios de información --tanto general como especializada-- para la industria, etc.

Productor de base de datos = organización que produce bases de datos online u offline.

Servicios electrónicos para uso profesional = todos los que suministran información en un medio no impreso ni oral, destinada a cualquier actividad que no sea de ocio. La entrega puede ser online u offline.

Servicio online de búsquedas retrospectivas en bases de datos = *host* clásico, servicio que suministra acceso a bases de datos que pueden contener diferentes tipos de información (bibliográfica, factual, numérica, texto completo, imágenes, etc.), en diversas áreas (científica, técnica, legal, prensa, datos financieros y de empresas, estadísticas, etc.) y relativa a varios períodos de tiempo retrospectivos.

Servicio de puesta al día *(SDI)* = servicio continuado de alerta informativa, perfil, distribución selectiva de información (*selective dissemination of information, SDI*) a partir de bases de datos u otras fuentes electrónicas.

Soportes magnéticos = cintas y discos que usan tecnologías magnéticas para almacenar información.

Soportes ópticos = discos que usan tecnologías ópticas, digitales o analógicas, para almacenar información, como CD-ROM, CD-I, CDTV, Data-Discman, etc.

Suministro de documentos = entrega de documentos completos, impresos en papel o microficha (*computer output microform, COM*) o en cualquier soporte electrónico, obtenidos a partir de soportes electrónicos (bases de datos, CD-ROMs, documentos escaneados o digitalizados, etc.).

Usuario final = persona que usa la información para su propio trabajo.

Videotex = servicio de información electrónica online en páginas o pantallas en vez de carácter a carácter.

** Se excluyen de este estudio:*

-Servicios radiodifundidos por antena de TV accesibles a todo el público (teletexto).
-Servicios puramente informáticos.
-Servicios de gestión de llamadas telefónicas.

Questionnaire

Information intermediaries

In Spanish

Ascii version for e-mail

--------------- PRINCIPIO DE LA ENCUESTA ----------------------

****
USO PROFESIONAL DE PRODUCTOS Y SERVICIOS
DE INFORMACION ELECTRONICA EN ESPAN~A.
****

Formulario para U S U A R I O S   I N T E R M E D I A R I O S
===

Estudio realizado para la Comision de la Union Europea por el

Instituto de Estadistica de Catalunya,

con la colaboracion de la

Asociacion Espan~ola de Distribuidores de Informacion Electronica
(ASEDIE)

Informacion sometida a secreto estadistico
(Art. 13, Ley 12/89 de la Funcion Estadistica Publica)

Esta encuesta se lleva a cabo con la ayuda de la Comision Europea en todos los paises del Area Economica Europea. Los resultados, obtenidos a finales de 1995, permitiran no solo conocer las caracteristicas globales del sector, sino tambien la realizacion de un analisis comparativo entre paises.

Periodo de referencia:

*** Del 1 de enero de 1994 al 31 de diciembre de 1994 ***

Este cuestionario esta dirigido a los intermediarios de productos o servicios de informacion en soporte electronico, ya sea trabajando por su cuenta o en centros de documentacion y bibliotecas y/o gabinetes de estudios.

Por favor conteste a todas las preguntas de la forma mas completa posible. Al final del cuestionario encontrara definiciones de algunos de los conceptos. Si requiere mas ayuda, no dude en ponerse en contacto con nosotros.

Nota: Indique los datos monetarios en pesetas (deducidos los impuestos, si es aplicable) y cin~ase exclusivamente al an~o 1994 por favor.

Devuelva este cuestionario relleno a:

* Tomas Baiget
* Instituto de Estadistica de Catalunya
* Subdireccion de Asistencia Tecnica Estadistica
* Via Laietana 58
* 08003 Barcelona
*
*
* Telefono: 93-412 00 88; fax: 412 31 45
* Correo electrónico: baiget@ines.es

1. Datos de la organizacion (situacion 1994).

Nombre de la empresa u organizacion:
....
....

Actividades principales que realiza su empresa u organizacion:
....
....

Situacion legal: [ ] privada
[ ] publica
[ ] semi-publica

Numero total de empleados en la sede donde Vd. trabaja
(por favor, indique equivalentes a dedicacion completa en 1994):

....

Nombre de su departamento:
....
....

Principales actividades de su departamento:
....
....

Numero total de personas de su departamento que trabajan como intermediarios o profesionales de la informacion
(por favor, indique equivalentes a dedicacion completa):

....

Persona de contacto para temas relacionados con esta encuesta:
....
....

Direccion:
....
....
....
....

Codigo postal: .... Ciudad: ....
....

Provincia: .... Comunidad autonoma: ....
....

Tel.: ( ) .... Fax: ( ) ....

Correo electronico: ....@........................

Asociacion(es) de intermediarios de la informacion de la(s) que son miembros:
....
....

2. Actividades como intermediarios de informacion en 1994.

2.1 ¤Que servicios ofrecen?

	Si	No
1. Busquedas en servicios de informacion electronica online	[ ]	[ ]
2. Busquedas en servicios de informacion electronica offline (p. ej. cd-roms)	[ ]	[ ]

3. Busquedas en biblioteca y archivos	[ ]	[ ]
4. Cursos de formacion / educacion permanente para el resto de personal	[ ]	[ ]
5. Consultoria	[ ]	[ ]
6. Produccion de bases de datos / entrada de datos en bases de datos ajenas	[ ]	[ ]
7. Distribucion de programas / paquetes de software	[ ]	[ ]

Otros servicios, por favor, especifiquelos:
....
....
....

---> Vea las definiciones al final del cuestionario.

2.2 ¤Que fuentes de informacion usan, y con que frecuencia, para dar respuesta a las demandas de informacion que reciben?

% de busquedas

Fuentes	En mas del 50%	Entre 50 y 10%	En menos del 10%	Nunca
1. Medios impresos (diarios, revistas, libros)	[ ]	[ ]	[ ]	[ ]
2. Contactos personales (colegas, conferencias)	[ ]	[ ]	[ ]	[ ]
3. Bases de datos online internas	[ ]	[ ]	[ ]	[ ]
4. Bases de datos online externas (hosts publicos)	[ ]	[ ]	[ ]	[ ]
5. Bases de datos offline (cd-roms)	[ ]	[ ]	[ ]	[ ]
Otras, por favor, especifiquelas:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

---> Vea las definiciones al final del cuestionario.

3. Presupuesto en 1994

3.1 ¤Que′ porcentaje de su presupuesto dedicaron a las siguientes funciones? (Por favor, haga estimaciones).

0-10% 11-50% 51-75% 76-100%

1. Servicios de informacion online	[ ]	[ ]	[ ]	[ ]
2. Produccion y mantenimiento de bases de datos internas	[ ]	[ ]	[ ]	[ ]
3. Produccion y mantenimiento de bases de datos externas (*)	[ ]	[ ]	[ ]	[ ]
4. Servicios de informacion electronica offline	[ ]	[ ]	[ ]	[ ]
5. Medios impresos	[ ]	[ ]	[ ]	[ ]
6. Gestion, administracion	[ ]	[ ]	[ ]	[ ]
7. Subcontratacion de trabajos a empresas externas	[ ]	[ ]	[ ]	[ ]
8. Administracion de archivos	[ ]	[ ]	[ ]	[ ]
9. Formacion, asistencia a seminarios y conferencias	[ ]	[ ]	[ ]	[ ]
10. Otras, por favor, especifiquelas:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

(*) Si realizan este trabajo a cuenta de otros departamentos u organizaciones.

3.2 ¤A cuanto ascendio' su presupuesto total en 1994?
(Suma de todos los costes indicados en 3.1 sin incluir IVA)

aproximadamente .... PTA

Nota:
Las siguientes preguntas se refieren exclusivamente a servicios de informacion electronica.

3.3.1 ¤Cuanto gasto' su departamento en servicios de informacion electronica en 1994?

aproximadamente .... PTA

3.3.2 Desglose el gasto en informacion electronica segun los siguientes tipos de productos (haga una estimacion).

	0-10%	11-50%	51-75%	76-100%
1. Busquedas retrospectivas online	[ ]	[ ]	[ ]	[ ]
2. Informacion en tiempo real (informacion financiera, noticias, etc.)	[ ]	[ ]	[ ]	[ ]
3. Videotex	[ ]	[ ]	[ ]	[ ]
4. Audiotex	[ ]	[ ]	[ ]	[ ]
5. Correo electronico	[ ]	[ ]	[ ]	[ ]
6. Otros servicios online (por favor, especifiquelos)				

....	[ ]	[ ]	[ ]	[ ]
7. Cd-roms	[ ]	[ ]	[ ]	[ ]
8. Otros servicios de informacion electronica offline	[ ]	[ ]	[ ]	[ ]
9. Informacion en otros soportes 'opticos (por favor, especifiquelos)				
....	[ ]	[ ]	[ ]	[ ]
10. Informacion en soporte magnetico (cinta, disquete, etc.)	[ ]	[ ]	[ ]	[ ]

---> Vea las definiciones al final del cuestionario.

3.3.3 Desglose el gasto en informacion electronica por temas. (Haga una estimacion).

	0-10%	11-50%	51-75%	76-100%
1. Financiera / bolsa / bancaria	[ ]	[ ]	[ ]	[ ]
2. Perfiles de empresas / informacion de credito	[ ]	[ ]	[ ]	[ ]
3. Otra informacion economica y de negocios	[ ]	[ ]	[ ]	[ ]
4. Legal	[ ]	[ ]	[ ]	[ ]
5. Patentes	[ ]	[ ]	[ ]	[ ]
6. Cientifica / tecnica / medica	[ ]	[ ]	[ ]	[ ]
7. Gubernamental / politica	[ ]	[ ]	[ ]	[ ]
8. Viajes, horarios	[ ]	[ ]	[ ]	[ ]
9. Otra (por favor, especifiquela)				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

4. Ingresos

4.1 ¤Cuanto ingresaron en 1994 por la venta de productos y servicios de informacion?

....

4.2 Desglose de forma aproximada por que servicios obtuvieron los ingresos (haga una estimacion).

	0-10%	11-50%	51-75%	76-100%
1. Busquedas en servicios de informacion electronica online.	[ ]	[ ]	[ ]	[ ]
2. Busquedas en servicios de				

informacion electronica offline (p. ej. cd-roms)	[ ]	[ ]	[ ]	[ ]
3. Busquedas en biblioteca y archivos	[ ]	[ ]	[ ]	[ ]
4. Cursos de formacion /educacion para el resto de personal	[ ]	[ ]	[ ]	[ ]
5. Consultoria	[ ]	[ ]	[ ]	[ ]
6. Produccion de bases de datos / entrada de datos en bases de datos ajenas	[ ]	[ ]	[ ]	[ ]
7. Distribucion de programas / paquetes de software	[ ]	[ ]	[ ]	[ ]
8. Otros servicios de informacion (por favor, especifiquelos)				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

5. Usuarios en 1994

5.1 ¤Para que tipo de usuarios trabajaron en 1994? (indique porcentajes).

.... % usuarios o clientes internos de la institucion

.... % usuarios o clientes externos a la institucion

5.2 En comparacion con 1993, ¤sus ingresos procedentes de los usuarios INTERNOS aumentaron o disminuyeron?

[ ] aumentaron [ ] disminuyeron

5.3 En comparacion con 1993, ¤sus ingresos procedentes de los usuarios EXTERNOS aumentaron o disminuyeron?

[ ] aumentaron [ ] disminuyeron

6. Barreras al uso de la informacion electronica.

6.1 ¤Cuales son las causas mas importantes de que, tanto Vd. como sus usuarios por si mismos, no usen (o no usen mas) las fuentes de informacion electronica?

Muy importante = 5 Poco importante = 1

	Importancia				
	5	4	3	2	1
1. Ignorancia de los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
2. Falta de personal experimentado	[ ]	[ ]	[ ]	[ ]	[ ]
3. Problemas con las tecnologias (PCs, bases de datos, etc.)	[ ]	[ ]	[ ]	[ ]	[ ]

4. Programas complicados	[ ]	[ ]	[ ]	[ ]	[ ]
5. No disponibilidad de la informacion que se necesita	[ ]	[ ]	[ ]	[ ]	[ ]
6. Problema con los idiomas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Relacion coste/beneficio mala	[ ]	[ ]	[ ]	[ ]	[ ]
8. Hosts demasiado caros	[ ]	[ ]	[ ]	[ ]	[ ]
9. Costes de personal altos	[ ]	[ ]	[ ]	[ ]	[ ]
10. Resistencia de la direccion	[ ]	[ ]	[ ]	[ ]	[ ]
11. Falta de presupuesto	[ ]	[ ]	[ ]	[ ]	[ ]
12. Problemas con las redes	[ ]	[ ]	[ ]	[ ]	[ ]
13. Otras causas (por favor, especifiquelas)					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

6.2 ¤Que acciones de promocion de sus servicios piensan realizar el proximo an~o? (Puntue su importancia segun crea).

Muy importante = 5 Poco importante = 1

	5	4	3	2	1
1. Visitar a los usuarios o clientes	[ ]	[ ]	[ ]	[ ]	[ ]
2. Ofrecer los servicios en congresos	[ ]	[ ]	[ ]	[ ]	[ ]
3. Poner stand en ferias	[ ]	[ ]	[ ]	[ ]	[ ]
4. Presentar los servicios (demostraciones)	[ ]	[ ]	[ ]	[ ]	[ ]
5. Envios (mailings) tanto generales como selectivos	[ ]	[ ]	[ ]	[ ]	[ ]
6. Mejorar la presentacion y entrega de los resultados de las busquedas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Editar folletos y otros materiales describiendo los servicios	[ ]	[ ]	[ ]	[ ]	[ ]
8. Mejorar la atencion a los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
9. Participar en asociaciones de profesionales de la informacion	[ ]	[ ]	[ ]	[ ]	[ ]
10. Hacer (mas) relaciones publicas	[ ]	[ ]	[ ]	[ ]	[ ]
11. Otras (por favor, especifiquelas)					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

Muchas gracias por su cooperacion

Definiciones.
============

Audiotex = servicio online en el que los usuarios reciben la informacion oralmente.

Correo electronico = servicio que permite enviar y recibir mensajes a / desde usuarios especificos.

Busqueda retrospectiva = busqueda de informacion publicada en periodos de tiempo anteriores (informacion llamada tambien historica).

Distribuidor offline = organizacion que vende o alquila productos o servicios de informacion electronica en unidades concretas como CD-ROMs, CD-Is, disquetes, cassettes, cintas magneticas, boletines y revistas electronicos, etc., sin usar las redes de telecomunicaciones.

Informacion en tiempo real = informacion que se actualiza inmediatamente a medida que se produce. Para los fines de este estudio la definicion se extiende a todos los servicios online que se actualizan mas de una vez al dia.

Online = el usuario recibe la informacion a traves de redes de telecomunicaciones.

Offline = soporte electronico que no usa telecomunicaciones, p. ej., CD-ROMs.

Otra informacion economica y de negocios = incluye noticias sobre empresas y negocios, concursos y oportunidades comerciales, datos de mercados, propiedad inmobiliaria, servicios de informacion --tanto general como especializada-- para la industria, etc.

Productor de base de datos = organizacion que produce bases de datos online u offline.

Servicios electronicos para uso profesional = todos los que suministran informacion en un medio no impreso ni oral, destinada a cualquier actividad que no sea de ocio. La entrega puede ser online u offline.

Servicio online de busquedas retrospectivas en bases de datos = host clasico, servicio que suministra acceso a bases de datos que pueden contener diferentes tipos de informacion (bibliografica, factual, numerica, texto completo, imagenes, etc.), en diversas areas (cientifica, tecnica, legal, prensa, datos financieros y de empresas, estadisticas, etc.) y relativa a varios periodos de tiempo retrospectivos.

Servicio de puesta al dia (SDI) = servicio continuado de alerta informativa, perfil, distribucion selectiva de informacion (selective dissemination of information, SDI) a partir de bases de datos u otras fuentes electronicas.

Soportes magneticos = cintas y discos que usan tecnologias magneticas para almacenar informacion.

Soportes opticos = discos que usan tecnologias opticas, digitales o analogicas, para almacenar informacion, como CD-ROM, CD-I, CDTV, Data-Discman, etc.

Suministro de documentos = entrega de documentos completos, impresos en papel o microficha (computer output microform, COM) o en cualquier soporte electronico, obtenidos a partir de soportes electronicos (bases de datos, CD-ROMs, documentos escaneados o digitalizados, etc.).

Usuario final = persona que usa la informacion para su propio trabajo.

Videotex = servicio de informacion electronica online en paginas o pantallas en vez de caracter a caracter.

* Se excluyen de este estudio:

-Servicios radiodifundidos por antena de TV accesibles a todo el publico (teletexto).
-Servicios puramente informaticos.
-Servicios de gestion de llamadas telefonicas.

------------------ FIN DE LA ENCUESTA ---------------------

Questionnaire

Information intermediaries in banks

In Spanish

ASEDIE

ASOCIACION ESPAÑOLA DE DISTRIBUIDORES DE INFORMACION ELECTRONICA

Generalitat de Catalunya
Departament d'Economia i Finances
Institut d'Estadística de Catalunya

Estudio realizado para la Comisión de la Unión Europea.

Uso profesional de productos y servicios de información electrónica en los bancos y cajas de ahorros españoles.

Información sometida a secreto estadístico (Art. 13, Ley 12/89 de la Función Estadística Pública)

Esta encuesta se lleva a cabo con la ayuda de la Comisión Europea en todos los países del Área Económica Europea. Los resultados, obtenidos a finales de 1995, permitirán no sólo conocer las características globales del sector, sino también la realización de un análisis comparativo entre países.

Período de referencia:

Del 1 de enero de 1994 al 31 de diciembre de 1994

Este cuestionario está dirigido a los usuarios e intermediarios de productos o servicios de información en soporte electrónico que trabajan en bancos y cajas de ahorros, especialmente en sus centros de documentación y/o gabinetes de estudios. Se ruega contestarlo aunque en la entidad bancaria no exista un departamento específico que se encargue de realizar búsquedas y gestionar la información.

Por favor conteste a todas las preguntas de la forma más completa posible. Al final del cuestionario encontrará definiciones de algunos de los conceptos. Si requiere más ayuda, no dude en ponerse en contacto con nosotros.

Nota: Indique los datos monetarios en pesetas (deducidos los impuestos, si es aplicable) y cíñase exclusivamente al año 1994 por favor.

Devuelva este cuestionario relleno a:

Tomás Baiget
Instituto de Estadística de Catalunya
Subdirección de Asistencia Técnica Estadística
Vía Laietana 58
08003 Barcelona
Teléfono: 93-412 00 88; fax: 412 31 45

1. Datos de la organización (situación 1994).

Nombre del banco o caja de ahorros:

....

Número total de empleados en su sede (*por favor, indique equivalentes a dedicación completa en 1994*):

....

Nombre de su departamento:

....

Principales actividades de su departamento:

....

....

Número total de empleados en su departamento (*por favor, indique equivalentes a dedicación completa*):

....

Número total de personas de su departamento que trabajan como intermediarios o profesionales de la información (*por favor, indique equivalentes a dedicación completa*):

....

Persona de contacto para temas relacionados con esta encuesta:

....

Dirección:

....

Código postal: .... Ciudad: ....

Provincia: .... Comunidad autónoma: ....

Teléfono: ( ) .... Fax: ( ) ....

Correo electrónico: ....@..

2. Actividades como intermediarios de información en 1994.

2.1 ¿Qué servicios ofrecen?

	Si	No
1. Búsquedas en servicios de información electrónica *online*	[ ]	[ ]
2. Búsquedas en servicios de información electrónica *offline* (p. ej. cd-roms)	[ ]	[ ]
3. Búsquedas en biblioteca y archivos	[ ]	[ ]
4. Cursos de formación / educación permanente para el resto de personal	[ ]	[ ]
5. Consultoría	[ ]	[ ]
6. Producción de bases de datos / entrada de datos en bases de datos ajenas	[ ]	[ ]
7. Distribución de programas / paquetes de software	[ ]	[ ]

Otros servicios, *por favor, especifíquelos*:

....

....

---> *Vea las definiciones al final del cuestionario.*

2.2 ¿Qué fuentes de información usan, y con qué frecuencia, para dar respuesta a las demandas de información que reciben?

	% de búsquedas			
Fuentes	En más del 50%	Entre 50 y 10%	En menos del 10%	Nunca
1. Medios impresos (diarios, revistas, libros)	[ ]	[ ]	[ ]	[ ]
2. Contactos personales (colegas, conferencias)	[ ]	[ ]	[ ]	[ ]
3. Bases de datos online internas	[ ]	[ ]	[ ]	[ ]
4. Bases de datos online externas (*hosts* públicos)	[ ]	[ ]	[ ]	[ ]
5. Bases de datos offline (cd-roms)	[ ]	[ ]	[ ]	[ ]
Otras, *por favor, especifíquelas*:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

---> *Vea las definiciones al final del cuestionario.*

3. Presupuesto en 1994

3.1 ¿Qué porcentaje de su presupuesto dedicaron a las siguientes funciones? *(Por favor, haga estimaciones).*

	0-10%	11-50%	51-75%	76-100%
1. Servicios de información online	[ ]	[ ]	[ ]	[ ]
2. Producción y mantenimiento de bases de datos internas	[ ]	[ ]	[ ]	[ ]
3. Producción y mantenimiento de bases de datos externas *(*)*	[ ]	[ ]	[ ]	[ ]
4. Servicios de información electrónica offline	[ ]	[ ]	[ ]	[ ]
5. Medios impresos	[ ]	[ ]	[ ]	[ ]
6. Gestión, administración	[ ]	[ ]	[ ]	[ ]
7. Subcontratación de trabajos a empresas externas	[ ]	[ ]	[ ]	[ ]
8. Administración de archivos	[ ]	[ ]	[ ]	[ ]
9. Formación, asistencia a seminarios y conferencias	[ ]	[ ]	[ ]	[ ]
10. Otras, *por favor, especifíquelas*:				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

(*) Si realiza este trabajo a cuenta de otros departamentos u organizaciones.

3.2 ¿A cuánto ascendió su presupuesto total en 1994?
(Suma de todos los costes indicados en 3.1 sin incluir IVA)

aproximadamente .... PTA

Nota:
Las siguientes preguntas se refieren exclusivamente a servicios de información electrónica.

3.3.1 ¿Cuánto gastó su departamento en servicios de información electrónica en 1994?

aproximadamente .... PTA

3.3.2 Desglose el gasto en información electrónica según los siguientes tipos de productos *(haga una estimación).*

	0-10%	11-50%	51-75%	76-100%
1. Búsquedas retrospectivas *online*	[ ]	[ ]	[ ]	[ ]
2. Información en tiempo real (información financiera, noticias, etc.)	[ ]	[ ]	[ ]	[ ]
3. Videotex	[ ]	[ ]	[ ]	[ ]
4. Audiotex	[ ]	[ ]	[ ]	[ ]
5. Correo electrónico	[ ]	[ ]	[ ]	[ ]
6. Otros servicios *online (por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
7. Cd-roms	[ ]	[ ]	[ ]	[ ]
8. Otros servicios de información electrónica *offline*	[ ]	[ ]	[ ]	[ ]
9. Información en otros soportes ópticos *(por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
10. Información en soporte magnético (cinta, disquete, etc.)	[ ]	[ ]	[ ]	[ ]

---> *Vea las definiciones al final del cuestionario.*

3.3.3 Desglose el gasto en información electrónica por temas. *(Haga una estimación).*

	0-10%	11-50%	51-75%	76-100%
1. Financiera / bolsa / bancaria	[ ]	[ ]	[ ]	[ ]
2. Perfiles de empresas / información de crédito	[ ]	[ ]	[ ]	[ ]
3. Otra información económica y de negocios	[ ]	[ ]	[ ]	[ ]
4. Legal	[ ]	[ ]	[ ]	[ ]
5. Patentes	[ ]	[ ]	[ ]	[ ]
6. Científica / técnica / médica	[ ]	[ ]	[ ]	[ ]
7. Gubernamental / política	[ ]	[ ]	[ ]	[ ]
8. Viajes, horarios	[ ]	[ ]	[ ]	[ ]
9. Otra *(por favor, especifíquela)*				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

4. Usuarios en 1994

4.1 ¿Para qué tipo de usuarios trabajaron en 1994? *(indique porcentajes).*

.... % usuarios o clientes internos

.... % usuarios o clientes externos

4.2 ¿Qué porcentaje de sus gastos fueron cubiertos por los pagos de sus usuarios o clientes?

.... % por pagos de los usuarios internos *(si les cobran por los servicios de información electrónica)*

.... % por pagos de los clientes externos *(si los tienen)*

4.3 Departamentos mejores clientes de su servicio.

Departamento mejor cliente ....

Segundo mejor cliente ....

Tercer mejor cliente ....

4.4 ¿De qué sectores les llegaron más consultas externas?
(Por favor, haga una estimación).

	0-10%	11-50%	51-75%	76-100%
Industria	[ ]	[ ]	[ ]	[ ]
Servicios	[ ]	[ ]	[ ]	[ ]
Administración pública	[ ]	[ ]	[ ]	[ ]
Otros sectores o áreas *(por favor, especifíquelos)*				
....	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]

5. Barreras al uso de la información electrónica.

5.1 ¿Cuáles son las causas más importantes de que, tanto Vd. como sus usuarios por sí mismos, no usen (o no usen más) las fuentes de información electrónica?

Muy importante = 5 Poco importante = 1

	Importancia				
	5	4	3	2	1
1. Ignorancia de los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
2. Falta de personal experimentado	[ ]	[ ]	[ ]	[ ]	[ ]
3. Problemas con las tecnologías (PCs, bases de datos, etc.)	[ ]	[ ]	[ ]	[ ]	[ ]
4. Programas complicados	[ ]	[ ]	[ ]	[ ]	[ ]
5. No disponibilidad de la información que se necesita	[ ]	[ ]	[ ]	[ ]	[ ]
6. Problema con los idiomas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Relación coste/beneficio mala	[ ]	[ ]	[ ]	[ ]	[ ]
8. *Hosts* demasiado caros	[ ]	[ ]	[ ]	[ ]	[ ]
9. Costes de personal altos	[ ]	[ ]	[ ]	[ ]	[ ]
10. Resistencia de la dirección	[ ]	[ ]	[ ]	[ ]	[ ]
11. Falta de presupuesto	[ ]	[ ]	[ ]	[ ]	[ ]
12. Problemas con las redes	[ ]	[ ]	[ ]	[ ]	[ ]
13. Otras causas *(por favor, especifíquelas)*					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

5.2 ¿Qué acciones de promoción de sus servicios piensan realizar el próximo año? *(Puntúe su importancia según crea).*

Muy importante = 5 Poco importante = 1

	5	4	3	2	1
1. Visitar a los usuarios o clientes	[ ]	[ ]	[ ]	[ ]	[ ]
2. Ofrecer los servicios en congresos	[ ]	[ ]	[ ]	[ ]	[ ]
3. Poner stand en ferias	[ ]	[ ]	[ ]	[ ]	[ ]
4. Presentar los servicios (demostraciones)	[ ]	[ ]	[ ]	[ ]	[ ]
5. Envíos *(mailings)* tanto generales como selectivos	[ ]	[ ]	[ ]	[ ]	[ ]
6. Mejorar la presentación y entrega de los resultados de las búsquedas	[ ]	[ ]	[ ]	[ ]	[ ]
7. Editar folletos y otros materiales describiendo los servicios	[ ]	[ ]	[ ]	[ ]	[ ]
8. Mejorar la atención a los usuarios	[ ]	[ ]	[ ]	[ ]	[ ]
9. Participar en asociaciones de profesionales de la información	[ ]	[ ]	[ ]	[ ]	[ ]
10. Hacer (más) relaciones públicas	[ ]	[ ]	[ ]	[ ]	[ ]
11. Otras *(por favor, especifíquelas)*					
....	[ ]	[ ]	[ ]	[ ]	[ ]
....	[ ]	[ ]	[ ]	[ ]	[ ]

Muchas gracias por su cooperación

Definiciones.

Audiotex = servicio online en el que los usuarios reciben la información oralmente.

Correo electrónico = servicio que permite enviar y recibir mensajes a / desde usuarios específicos.

Búsqueda retrospectiva = búsqueda de información publicada en períodos de tiempo anteriores (información llamada también *histórica*).

Distribuidor offline = organización que vende o alquila productos o servicios de información electrónica en unidades concretas como CD-ROMs, CD-Is, disquetes, cassettes, cintas magnéticas, boletines y revistas electrónicos, etc., sin usar las redes de telecomunicaciones.

Información en tiempo real = información que se actualiza inmediatamente a medida que se produce. Para los fines de este estudio la definición se extiende a todos los servicios online que se actualizan más de una vez al día.

Online = el usuario recibe la información a través de redes de telecomunicaciones.

Offline = soporte electrónico que no usa telecomunicaciones, p. ej., CD-ROMs.

Otra información económica y de negocios = incluye noticias sobre empresas y negocios, concursos y oportunidades comerciales, datos de mercados, propiedad inmobiliaria, servicios de información --tanto general como especializada-- para la industria, etc.

Productor de base de datos = organización que produce bases de datos online u offline.

Servicios electrónicos para uso profesional = todos los que suministran información en un medio no impreso ni oral, destinada a cualquier actividad que no sea de ocio. La entrega puede ser online u offline.

Servicio online de búsquedas retrospectivas en bases de datos = *host* clásico, servicio que suministra acceso a bases de datos que pueden contener diferentes tipos de información (bibliográfica, factual, numérica, texto completo, imágenes, etc.), en diversas áreas (científica, técnica, legal, prensa, datos financieros y de empresas, estadísticas, etc.) y relativa a varios períodos de tiempo retrospectivos.

Servicio de puesta al día *(SDI)* = servicio continuado de alerta informativa, perfil, distribución selectiva de información (*selective dissemination of information, SDI*) a partir de bases de datos u otras fuentes electrónicas.

Soportes magnéticos = cintas y discos que usan tecnologías magnéticas para almacenar información.

Soportes ópticos = discos que usan tecnologías ópticas, digitales o analógicas, para almacenar información, como CD-ROM, CD-I, CDTV, Data-Discman, etc.

Suministro de documentos = entrega de documentos completos, impresos en papel o microficha (*computer output microform, COM*) o en cualquier soporte electrónico, obtenidos a partir de soportes electrónicos (bases de datos, CD-ROMs, documentos escaneados o digitalizados, etc.).

Usuario final = persona que usa la información para su propio trabajo.

Videotex = servicio de información electrónica online en páginas o pantallas en vez de carácter a carácter.

** Se excluyen de este estudio:*

-Servicios radiodifundidos por antena de TV accesibles a todo el público (teletexto).
-Servicios puramente informáticos.
-Servicios de gestión de llamadas telefónicas.

Questionnaire

Potential users

In Spanish

Reduced version in ascii for e-mail

```
Message inbox:15 -  Sent
From:    BAIGET <BAIGET@ines.es>
To:      <iwetel@sarenet.es.internet.0.es>
Subject: ENCUESTECILLA

HABITOS DE INFORMACION DE LOS USUARIOS. ESPAN~A.
-----------------------------------------------

A. DONDE TRABAJA EL (POSIBLE) USUARIO?
   (Si pluriempleo, indicar actividad principal)

1. Administracion publica............[ ]
2. Universidad.......................[ ]
3. Institucion semipublica
   (camara de comercio, fundacion,
   asociacion profesional, etc.)......[ ]
4. Empresa privada...................[ ]


B. AREA TEMATICA / TIPO DE ACTIVIDAD

   ......................................


C. QUE' FUENTES DE INFORMACION USA MAS FRECUENTEMENTE?

1. Impresas (diarios y revistas
   especializados, directorios, etc.).[ ]

2. Contactos personales con colegas
   o expertos (por telefono,
   en conferencias, asociaciones...)..[ ]

3. Base de datos online propia o
   interna de la institucion
   (incl. opac)......................[ ]

4. Bases de datos online externas
   (hosts)...........................[ ]

5. Cd-rom propio o de la institucion..[ ]

6. Otros (especificar)
    Correo electronico, Internet...,


D. EXISTE BIBLIOTECA/CENTRO DE DOCUMENTACION EN SU INSTITUCION?

              SI  [ ]          NO [ ]


E. HA USADO ALGUNA VEZ ALGUNA FUENTE DE INFORMACION ELECTRONICA?
   (directamente o a traves de un bibliotecario/documentalista)

              SI  [ ]          NO [ ]


F. PROBLEMAS CON LAS FUENTES DE INFORMACION ELECTRONICA
   (marcar solo las 3 que considere mas importantes)

   1. Desconocimiento...................[ ]
   2. Complicacion tecnologica..........[ ]   Por
   3. No esta' la informacion que busca..[ ]   favor:
   4. Dificultad con el idioma..........[ ]   marcar
   5. Mala relacion beneficio/coste.....[ ]   solo
   6. Hosts/cd-roms caros...............[ ]   tres
```

7. Resistencia de la direccion........[ ]   casillas!
8. Falta de presupuesto..............[ ]
9. Otros (especificar)...............[ ]
....

G. QUE' TEMA O TIPO DE INFORMACION FALTA EN ESPAN~A
EN FORMATO ELECTRONICO?

H. EXPERIENCIAS BUENAS Y MALAS CON LA INF.ELECTRONICA
(frases de usuarios y casos ejemplares o sintomaticos
concretos que recuerde; por favor, muy abreviado)

I. COMENTARIOS GENERALES, PROPUESTAS Y RECOMENDACIONES PARA
MEJORAR EL MERCADO DE LA INF.ELECTRONICA EN NUESTRO PAIS

--------------------Fin------------------------------------

Muchas gracias.

Devolver a: baiget@ines.es
fax: 93-412 31 45

13.4. Special methodological issues

Questionnaires for brokers:

In the next time we propose to ask for suppliers names and their estimated percent of usage.

Also, it seems better in general not to include % ranges, but estimated single % values.

13.5. Bibliography

Panorámica de la edición española de libros. 1994.
Análisis sectorial del libro.
Ministerio de Cultura. DG del Libro, Archivos y Bibliotecas.
SDG del Libro y la Lectura.
Paloma Peña Sánchez de Rivera.
Servicio de Publicaciones del Mº de Cultura.
Abdón Terradas, 7. 28015 Madrid.
Tel.: +34-1-544 90 33; fax: 549 34 18
209 p.
ISBN: 84-8181-091-6

Informe sobre el sector editorial en España.
Depto. de Estudios de *Fira de Barcelona.*
Publicado con motivo del *Salón Internacional del Libro, Liber'95.*
Barcelona, 3-7 de octubre de 1995.
14 p.
(Se trata sólo de un resumen de la *Panorámica de la edición española de libros. 1994*, del *Mº de Cultura).*

I Congreso de editores. La edición en España.
Granada, 28 de junio al 1 de julio de 1994.
Federación de Gremios de Editores de España
Juan Ramón Jiménez, 45 - 9º Izda. 28036 Madrid
Tel.: +34-1-350 91 03 / 5; fax: 345 43 51
Granada. 158 p.
ISBN: 84-86141-18-4

Memoria de actividades de la Federación de Gremios de Editores de España. 1993-1994.
Incluye el directorio de las empresas agremiadas.

La *FGEE* integra los siguientes gremios territoriales y asociaciones profesionales:
Gremio de Editores de Madrid (GEM)
Gremi d'Editors de Catalunya (GEC)
Gremio de Editores de Euzkadi (GEE)
Asociación de Editores de Andalucía (AEA)
Asociación Galega de Editores (AGE)
Asociación Nacional de Editores de Libros y Material de Enseñanza (Anele)
Associació d'Editors en Llengua Catalana (Aellec)

Dirección de la *FGEE*:

Federación de Gremios de Editores de España
Juan Ramón Jiménez, 45 - 9º Izda. 28036 Madrid
Tel.: +34-1-350 91 03 / 5; fax: 345 43 51
Madrid. 82 p.
ISBN: 84-86141-22-2

Comercio interior del libro en España. 1993.
Federación de Gremios de Editores de España.

Juan Ramón Jiménez, 45 - 9º Izda. 28036 Madrid
Tel.: +34-1-350 91 03 / 5; fax: 345 43 51
Madrid. 63 p.
ISBN: 84-86141-19-2

Comercio exterior del libro en España. 1994.
Federación Española de Cámaras del Libro.

Estadística de la producción editorial de libros.
Instituto Nacional de Estadística (INE), con datos del Depósito Legal de la *Biblioteca Nacional.*

IPMark. Información de la publicidad y el marketing.
Num.: 455. 1-15 octubre 1995.

Anuario El País. 1995.
Director: ***José Manuel Revuelta.***
Madrid: Ediciones El País.
ISBN: 84-86459-60-5

Comunicación social 1994. Tendencias.
Informes anuales de *Fundesco.*
Director: ***Bernardo Díaz Nosty.***
*Fundación para el Desarrollo de la Función Social de las Comunicaciones.*Madrid: Fundesco. 355 p.
ISBN: 84-8112-032-4
Fundesco. Plaza de la Independencia, 6. 28001 Madrid.
Tel.: +34-1-330 06 00; fax: 330 06 75

Estudio Infoadex. La inversión publicitaria en España. 1995.
Madrid: Infoadex. 1995

La Documentación en España.
Ernest Abadal Falgueras
Madrid: Centro de Información y Documentación Científica (Cindoc)/Csic; Fesabid, 1994. 200 p.
Isbn: 84-00-07431-9

Estadística de bibliotecas 1992. (Biannual)
Nº INE: 79-92-325 (0.00)
Nipo: 103-94-014-2. LAN.13INE.
Madrid: Instituto Nacional de Estadística (INE). 1994. 433 p.
ISBN: 84-260-2870-5
INE. Paseo de la Castellana, 183. 28046 Madrid.
Tel.: +34-1-583 94 83; fax: 583 90 86

Sector informático y parque de ordenadores en España. 1994.
Asociación Española de Empresas de Tecnologías de la Información (Sedisi).
Colección Informes y Estudios.
Nipo: 236-95-022-0
Madrid: Centro de Publicaciones. Ministerio de Industria y Energía (Miner). 1995.
ISBN: 84-7474-797-X
Dr. Fleming, 7 - 2º. 28036 Madrid.
Tel.: +34-1-344 03 62 / 05 53; fax: 457 80 41

Telefónica. Informe anual 1994.
Editado por Servicios de Comunicación. Subdirección General de Comunicación y Relaciones Corporativas.
Madrid: Telefónica de España, abril de 1995. 123 p.
Departamento Financiero. General Perón, 38 - pl. 15. Edificio Master's II. 28020 Madrid.

Informe del Sector Electrónico. 1994.
Memoria de la Asociación Nacional de Industrias Electrónicas (Aniel).
Madrid: Aniel, 1995. 187 p.
Aniel. Príncipe de Vergara, 74 - 4ª planta. 28006 Madrid.
Tel.: +34-1-411 16 61; fax: 411 40 00

Fourth co-ordinated survey of EU-based organisations engaged in the provision of electronic information services and products for professional users in 1992.
Project report. Results of the statistical survey carried out with the support of the Commission of the European Communities by national industry organisations and co-ordinated by Eiia.
European Information Industry Association (Eiia). February 1995. 50 p. plus annexes and appendixes.

Catálogo de Servicios Ibertex. 1994
Beatriz Ruiz González, ed.
Libros de Fuinca. Nº 4
Madrid: Fundesco. March 1995, 668 p.
Isbn: 84-8112-037-5
Fundesco. Plaza de la Independencia, 6. 28001 Madrid.
Tel.: +34-1-330 06 00; fax: 330 06 59 / 75
Fuinca. Plaza de la Independencia, 6. 28001 Madrid.
Tel.: +34-1-330 07 00; fax: 330 07 18

Catálogo de Servicios Online Ascii
Beatriz Ruiz González, ed.
Libros de Fuinca. Nº 3
Madrid: Fundesco. 1994, 408 p.
Isbn: 84-8112-029-4
(see address above)

The Multimedia Yearbook. 1995
London: Interactive Multimedia Publications. 1995, p. 148-150.

La informació electrònica a Catalunya. Anàlisi comparativa.
Ernest Abadal; Maria-Josep Recoder.
Col.lecció Informes, 6
Barcelona: Centre d'Investigació de la Comunicació (Cedic), Generalitat de Catalunya. 1991. 130 p.
Isbn: 84-393-1731-X
Cedic. Via Laietana, 46 A, pral. 2ª. 08003 Barcelona.
Tel.: +34-3-268 14 58; fax: 268 47 33

Fundesco. Boletín de la Fundación para el Desarrollo de la Función Social de las Comunicaciones.
Nº 168, septiembre de 1995, p. 16-18. "El multimedia en España", por Yolanda Arribas, Fuinca, y Mariano Sanz, Fundesco.

(see address above)

Directorio de servicios de información electrónica de la Administración General del Estado.
Víctor M. Izquierdo / Begoña Jáuregui. Secretaría General Técnica. Mº para las Administraciones Públicas (MAP).
Nipo: 007-95-021-1
Nipo: 326-95-005-X
Isbn: 84-340-0767-5
Madrid: Mº de la Presidencia. Boletín Oficial del Estado (BOE). March 1995, 615 p.
BOE. Trafalgar, 29. 28071 Madrid.

Estudio de la utilización de los servicios de información electrónica en la Administración Pública central.
Asociación profesional del cuerpo superior de sistemas y tecnologías de la información de la Administración del Estado (Astic). Fernando Rodríguez Rivadulla.
Madrid: Centro de Información y Documentación Científica (Cindoc) / Csic. 1995. 70 p. (+ 190 p. de anexos).
Cindoc/Csic. Joaquín Costa, 22. 28002 Madrid.
Tel.: +34-1-563 54 82; fax: 564 26 44

El sector de las agencias de noticias en España.
Análisis de su estructura y debilidades.
Juan Carlos Miguel de Bustos y Fátima Pastor Ruiz
Telos, n.43, p. 21-29. septiembre-noviembre 1995.
Madrid: Fundesco
Fundesco. Plaza de la Independencia, 6. 28001 Madrid.
Tel.: +34-1-330 06 00; fax: 330 06 59 / 75